Academic Pediatric Association
Research Scholars Program
Cohort 2 2014-2017

Jessica Bettenhausen, MD

Jessica Bettenhausen, MD is a Pediatric Hospitalist at Children's Mercy Hospital and an Assistant Professor of Pediatrics at the University of Missouri at Kansas City School of Medicine. She attended the University of Kansas Medical School and completed her training in Pediatrics at Children's Mercy Hospital in 2008. Her research interests include the social determinants of child health.

Project Description:
Understanding the Interaction of Individual and Neighborhood Level Social Determinants on Child Health

Her Research Scholars Program project, *Understanding the Interaction of Individual and Neighborhood Level Social Determinants on Child Health*, will examine the contributions of social determinants of health on pediatric asthma outcomes. Socioeconomic status is one of the strongest predictors of mortality and chronic conditions, and impacts children at both the individual level and neighborhood level. The interaction of both individual and neighborhood socioeconomic factors is a growing area of interest in health services research. She aims to describe the independent effects and interaction of both individual and neighborhood level social determinants of health on pediatric asthma control and health quality of life.

Eric Coon, MD

Eric Coon is a pediatric hospitalist fellow at the University of Utah. In addition to clinical responsibilities as a hospitalist at Primary Children's Hospital, his fellowship includes a Masters of Science degree in Clinical Investigation as well as training in quality improvement. He is a graduate of the University of Arizona College of Medicine and completed his residency training at Dell Children's Medical Center through the University of Texas Southwestern-Austin. He is interested in identifying and mitigating avoidable care, with a focus on the role of overdiagnosis in pediatrics.

Project Description:
Benefit Assessment of Video-Fluoroscopic Swallow Studies in Infants and Toddlers

Evaluation and treatment of aspiration has profound implications surrounding feeding, a fundamental interaction between infants and caregivers. Yet, patient characteristics and testing results for aspiration have not been rigorously assessed. This project seeks to describe patients being evaluated for aspiration, measure the relationship between test results and aspiration management, and measure subsequent hospital utilization for aspiration related illness.

Jennifer Ehrhardt, MD, MSMPH

Dr. Ehrhardt earned her MD from Albert Einstein College of Medicine. She completed her residency in Pediatrics at Children's National Medical Center. She then completed a fellowship in Developmental-Behavioral

Pediatrics at Children's Hospital Boston and earned her MPH from the Harvard School of Public Health. In 2011, she joined the faculty in the Division of Developmental and Behavioral Pediatrics at Cincinnati Children's Hospital Medical Center (CCHMC). Dr. Ehrhardt's academic interests include early childhood development, early intervention and preschool services, underserved populations, and health services research. Among her clinical roles, she has been collaborating with the Foster Care Clinic at CCHMC and several community agencies on ways to meet the developmental and behavioral health needs of children entering foster care.

Project Description:
Utilization of Early Intervention Services Among Young Children in Foster Care

Young children in foster care experience higher rates of developmental delays and behavior problems than children in the general population. One of the primary interventions to address developmental delay is Part C of the Individuals with Disabilities Education Act (IDEA)/Early Intervention (EI), which serves children less than 3 years of age. Yet, for young children in foster care there is a large discrepancy between the rates of developmental delay and receipt of EI services, with many of these children not receiving EI services. Having a better understanding of potential barriers to receipt of EI services in this population would help to improve their utilization of these services and their developmental outcomes. The objective of this project is to explore potential barriers to receipt of EI services among young children in foster care in one state. Through secondary data analysis, we will explore differences in referral patterns to EI and examine predictors of enrollment in and duration of EI services for young children in foster care.

Norah Emara, MD

Norah Emara, MD was born and raised in Boston, MA. She obtained her undergraduate degree in Molecular Biology and Biochemistry at Wesleyan University before graduating from Tufts University School of Medicine in 2011. Dr. Emara will join the Division of Pediatric Hospital Medicine at Floating Hospital for Children as a hospitalist medicine fellow upon completion of her pediatric residency at the Floating. Her research interests involve quality of life measures in children with medical complexity, procedural sedation and palliative care.

Project Description:
Characterizing Parental Perspectives Regarding Pediatric Hospital Readmissions and its Impact on Quality of Life

Hospital readmissions are the focus of considerable healthcare policy debate and have emerged as a national quality indicator among hospitalized adults supported by the Affordable Care Act/Hospital Readmission Reduction Program. Among hospitalized children, readmission is a quality indicator prioritized for evaluation by the Children's Health Insurance Program Reauthorization Act and is the focus of a national multi-site quality improvement initiative. Children with medical complexity (CMC) account for a significant proportion of overall pediatric hospital resource utilization and approximately 60%of all pediatric readmissions (Berry et al, JAMA, 2013). By their very nature, CMC are at increased risk for readmission secondary to medical fragility and dependence on technology. The purpose of this study is to explore and characterize the perspectives of parents' of children with medical complexity regarding the potential preventability of their readmission, the time trade-offs between increased length of hospital admission compared to relative risk of readmission and to better understand the impact of hospital readmission on patient and caregiver quality of life.

Elizabeth Halvorson, MD

Dr. Halvorson earned her medical degree from Vanderbilt University School of Medicine and completed her pediatric residency at Wake Forest Baptist Medical Center. She stayed on faculty as a chief resident and subsequently as a pediatric hospitalist. She has a broad background in both basic science and clinical research, but her current interest is studying the effects of pediatric obesity in the inpatient setting, specifically within the realm of patient safety. She is the hospitalist representative to the Quality and Safety committee of her hospital and is medical director of one of the pediatric units. She is a member of the Wake Forest Translational Science Institute's Research Scholar Academy and has been accepted to the M.S. program in Clinical and Population Translational Science through Wake Forest University for next year.

Project Description:

Incidence of Adverse Patient Safety Events in Overweight and Obese Pediatric Inpatients

Overweight and obese pediatric inpatients have worse outcomes and prolonged length of stay compared to their normal-weight counterparts. Adverse patient safety events, such as adverse drug effects and hospital-acquired infections, are known to increase morbidity and mortality, prolong length of stay, and increase the cost of hospitalization. The goal of this project is to determine the incidence and etiology of adverse patient safety events among obese, overweight, and normal-weight pediatric inpatients both institutionally and nationally. Analysis will focus on the association of weight status with different patient safety events and the potential contribution of these events to the poor outcomes documented for overweight and obese patients.

Justin Josephsen, MD, MA

Dr. Josephsen earned his medical degree at Creighton University, and completed his pediatric residency and neonatology fellowship training at Saint Louis University. He has a master's degree in international affairs and was a fellow in the Robert Bosch Foundation Fellowship program in Berlin, Germany, where he studied public health aspects of large international sporting events. He is currently an Assistant Professor of Pediatrics in the Neonatal-Perinatal Division at Saint Louis University. His research interests include delivery room interventions to improve neonatal outcomes and simulation-based medical education in high-pressure environments.

Project Description:
Prevention of skills decay in sporadic providers of neonatal resuscitation

General pediatricians and community hospital nurses occasionally provide advanced neonatal resuscitation in high-risk deliveries when maternal transport is impossible. The Neonatal Resuscitation Program (NRP) offers training in neonatal resuscitation with two-year certification cycles, but it is unclear if this interval is adequate to maintain competency with advanced skills such as intubation and chest compressions, particularly in those who infrequently resuscitate infants. This randomized-controlled trial will evaluate the change in competency of sporadic providers of resuscitation who receive more frequent, high-fidelity simulations of neonatal resuscitation. Study participants will include community pediatrician first-responders, neonatal transport nurses, and labor & delivery nurses. These participants are called upon sporadically to resuscitate critically-ill neonates.

Laura Kair, MD

Laura Kair earned her medical degree from the University of Iowa Carver College of Medicine and completed her pediatric residency training at Oregon Health & Science University. She was awarded the APA resident research award in 2012 for a study she conducted examining the relationship between in-hospital pacifier restriction and exclusive breastfeeding. Following residency, she accepted a pediatric hospitalist position in the Stead Family Department of Pediatrics at the University of Iowa Children's Hospital and a Clinical Assistant Professor appointment at the University of Iowa Carver College of Medicine. She serves as the University of Iowa's site representative to the APA BORN (Better Outcomes through Research for Newborns) network and was recently elected to a position on the BORN research committee. Her research interests include barriers to breastfeeding and interventions to improve breastfeeding outcomes in at-risk mother-infant dyads.

Project Description:

Rx Milk: A Randomized Controlled Trial of Donor Milk Supplementation to Increase Breastfeeding Duration and Exclusivity

Breastfeeding is an important public health practice for both maternal and infant health. Studies have shown that breastfeeding, as opposed to formula feeding, is associated with better neurodevelopmental outcomes as well as a reduced risk of infectious and allergic diseases, among other benefits. This study aims to assess, in a population of infants at risk for excessive neonatal weight loss, whether small-volume human donor milk supplementation prior to maternal mature milk production results in decreased formula supplementation at 1 week and an increased incidence of exclusive and any breastfeeding at 3 months. Dr. Kair's local mentor is Dr. Tarah Colaizy, a talented neonatologist and human donor milk researcher who is medical director of the Mother's Milk Bank of Iowa,

and her national mentor is Dr. Valerie Flaherman, an expert in the field of breastfeeding clinical research.

Alisa Khan, MD

Alisa grew up in Northern Virginia. She completed her undergraduate degree at Harvard University; medical school at the University of Michigan, where she was elected to the Alpha Omega Alpha Medical Honor Society; and pediatric residency training at the Johns Hopkins Children's Center. She is currently a second-year academic pediatric hospitalist and health services research fellow at Boston Children's Hospital who is completing her Master's in Public Health in Clinical Effectiveness at the Harvard School of Public Health. Her research interests include provider communication and its impact on the safety and quality of inpatient pediatric care, family-centered care, and pediatric readmissions. She is currently the Principal Investigator for a pilot study, entitled the Nighttime Communication Study, to study the effects of improved communication between providers and families at night on parent-provider concordance, communication, and parent-reported experience. In her free time, she enjoys kickboxing, traveling, and Yelping.

Project Description:
Parent-Reported Experience, Miscommunication and Errors in the Hospital

Communication between providers has important implications for patient safety. There is limited literature on the effect of improved family communication on safety and quality of care, particularly as reported by parents. In preliminary data Alisa collected at Boston Children's Hospital as part of her Nighttime Communication Study, she found that in nearly 50% of cases, parents and nighttime providers had a discordant understanding of key elements of a child's reason for hospitalization and care plan; that 14% of parents reported communication problems; and that

9% reported their child experienced a medical error during hospitalization. As the next step in this prospective intervention study, Alisa plans to assess whether a family-centered communication bundle she developed improves parent-reported experience, miscommunication, and errors for hospitalized children and assess the predictors of these outcomes.

Jaspreet Loyal, MD

I am currently an Assistant Professor in the Department of Pediatrics at the Yale School of Medicine and participate in clinical, research and teaching activities within the Section of General Pediatrics. I am the Medical Director of the Newborn Nursery at Yale New Haven Hospital where I have clinical, administrative and leadership responsibilities including policy implementation, quality and safety and standardization of well newborn care across campuses of the Yale New Haven Health system. I graduated medical school from the Medical College of Wisconsin in 2008 and completed my pediatric residency including a year as Chief Resident at the New York Presbyterian Weill Cornell Medical Center in 2012. Prior to medical school, I worked as an Epidemiologist for the County of San Mateo in California following earning a Master's Degree in Epidemiology at Stanford University. My research interests include quality improvement and safety, simulation as an educational tool and more recently parental refusal of prophylactic Vitamin K in newborns.

Project Description:
Refusal of Vitamin K Prophylaxis in Newborns: Understanding Parental Beliefs and the Scope of the Problem through Mixed-Methods Research

The American Academy of Pediatrics has recommended routine administration of intramuscular vitamin K to newborns to prevent Vitamin K Deficiency of the Newborn (VKDB) since 1961. Recently, there appears to be a growing number of parents deferring intramuscular vitamin K for their newborns putting these infants at risk for VKDB. The number of

parents who decline vitamin K prophylaxis for their infants and parental knowledge and attitudes regarding vitamin K in newborns in the United States are largely unknown. Using an extensive network of newborn nurseries members of the Academic Pediatric Association's Better Outcomes through Research for Newborns (BORN) network, the proposed study will investigate provider and parental attitudes and beliefs regarding VKDB as well as how newborn nurseries are addressing the issue including the use of oral vitamin K regimens.

Kimberly Randell, MD, MSMPH

Dr. Randell received her medical degree from the University of Oklahoma. She completed a pediatrics residency at Children's Mercy in Kansas City, followed by a pediatric emergency medicine fellowship and Masters Degree in Clinical Investigation Science at the University of Louisville. She is currently an attending in pediatric emergency medicine at Children's Mercy and Assistant Professor of Pediatrics at the University of Missouri-Kansas City. Her research and advocacy work focus on childhood exposure to violence and developing resilience in the context of childhood adversity.

Project Description:
Identification of Adolescent Relationship Abuse in the Pediatric Emergency Department

Adolescent relationship abuse (ARA) is associated with lifelong poor health outcomes and psychosocial functioning. The pediatric emergency department (PED) offers unique opportunities to identify ARA and provide interventions. The PED serves an at-risk adolescent population with higher ARA prevalence rates than the general population. For some adolescents, the PED is their only or primary source of healthcare. There are evidence-based ED interventions for ARA available, but no validated brief ARA screening instrument. This study will provide initial validation of

a brief ARA screening instrument among adolescents in the pediatric emergency department. Secondary aims include description of two commonly occurring but less frequently studied subsets of ARA, cyber abuse and reproductive coercion.

Alyssa Silver, MD

Alyssa Silver, MD is a pediatric hospitalist who earned her medical degree from Georgetown University School of Medicine after completing her undergraduate work at Georgetown University. She completed her residency training in pediatrics at Yale-New Haven Children's Hospital. She practiced pediatric hospital medicine at both St. Barnabas Hospital in Bronx, NY, and Santa Clara Valley Medical Center in San Jose, CA, with academic affiliations at Weill Cornell Medical College and Stanford University School of Medicine, respectively. In 2008, she joined the pediatric hospital medicine faculty in the Department of Pediatrics at The Children's Hospital at Montefiore, where she is currently an Assistant Professor of Pediatrics. From 2009-2013, she was the Director of the Pediatric Inpatient Physician Assistant Services. She is currently the Director of the Pediatric Hospital Medicine elective for pediatric residents. Alyssa is currently leading a randomized, double-blind, controlled trial of the use of 3% hypertonic saline for infants admitted with bronchiolitis. In addition to bronchiolitis, additional research interests include the management of urinary tract infections in the young infant, comparative effectiveness research in children admitted with osteomyelitis, and preventing asthma readmissions.

Project Description:
Trends and Predictors of Resource Utilization in Infants Hospitalized with Bronchiolitis in the US from 2000-2012

This study will analyze pediatric hospitalizations in 2000, 2003, 2006, 2009 and 2012 using the Agency for Healthcare Research and Quality's

Healthcare Cost and Utilization Project Kid's Inpatient Database (KID) to examine discharges of patients <2 years old with a primary or secondary diagnosis of bronchiolitis (ICD-9-CM 466.11, 466.19). The project aims: 1) to examine national trends in length of stay (LOS) in patients hospitalized with bronchiolitis from 2000-2012, 2) to examine national trends in charges, and cost in patients hospitalized with bronchiolitis from 2000-2012, and 3) to examine predictors of increased resource utilization for patients hospitalized with bronchiolitis. The primary outcome measures are LOS for bronchiolitis hospitalization and hospital charges as well as cost (using the cost-charge ratios). Temporal trend analysis will be done for LOS, cost and charges. Factors that will be analyzed using odds ratios and multivariate linear regression to examine predictors for increased LOS and increased cost of hospitalization include: age, race, ethnicity, type of insurance, median household income, and several hospital factors (teaching status, location, region, size and ownership). One might expect a greater effect on either or both LOS and charges in the most recent dataset given more recent publications about and more medical culture change regarding the lack of evidence for previously widely used medical therapies for bronchiolitis, moving towards more of a supportive approach. This project also strives to examine factors that may lead to increased resource utilization, or predictors of increased LOS and cost. Identifying these factors could lead to potentially more aggressive management or guideline implementation specifically targeted for these populations identified at risk.

Omolara Uwemedimo, MD, MPH

Dr. Omolara Thomas Uwemedimo is Assistant Professor of Pediatrics and Population Health at Hofstra North Shore- LIJ School of Medicine and attending physician at Cohen Children's Medical Center of New York in the Division of General Pediatrics. Dr. Uwemedimo received her MD degree from the NYU School of Medicine and completed her pediatric residency at the Boston Combined Residency Program in Pediatrics at

Children's Hospital Boston and Boston Medical Center. Dr. Uwemedimo then completed the Primary Care Clinician Research Fellowship in Community Health at Columbia University and a MPH degree from Columbia University Mailman School of Public Health. As a result of her clinical experiences working in low-income countries (Cuba, Dominican Republic, Kenya, Lesotho, South Africa, Nigeria and Malawi), she became interested in implementation science research with a focus on evaluating interventions to improve the quality of child health services and ultimately, health outcomes for children living in sub-Saharan Africa. In 2011, she was awarded a NIH diversity supplement grant to investigate barriers and facilitators of access to care among impoverished children in Durban, South Africa and has worked as a research consultant for Partnership for Reviving Routine Immunization in Northern Nigeria- Maternal Newborn and Child Health Initiative, an operations research project evaluating effectiveness of community health worker programs on child health outcomes in northern Nigeria. Currently, Dr. Uwemedimo is program director of the North Shore-LIJ Global Health Training Program at Cohen Children's Medical Center of New York, which provides resident physicians and MPH students with global child health education through conferences, seminars and overseas training experiences in Kenya, India and Dominican Republic. She is a member of the global health sections of the Academic Pediatric Association and the American Academy of Pediatrics. She also serves as a manuscript referee for the Bulletin of the World Health Organization and Global Health Action Journal.

Project Description:
Using E-Health Technology to Improve Healthcare Worker Performance of The Integrated Management of Childhood Illness in Kenya: A Pilot Study (The ZiDi study)

The Integrated Management of Childhood Illnesses (IMCI) is a strategy that utilizes simple algorithms and supportive supervision to train non-physicians (i.e., physician-extenders) in case management of ill children and caregiver health counseling, which has been proven to reduce global childhood morbidity and mortality in low-income countries. However, the benefits of IMCI in many African countries are not fully realized due to a

scarcity of physicians for supportive supervision. We hypothesize that the North Shore- LIJ Global Health Residency Track, which provides training in global child health to US resident pediatricians, may be able to serve as a resource for strengthening supervision and performance of physician-extenders, and ultimately, reducing child deaths. Electronic health information systems provide effective patient care documentation allowing for auditing of HCW performance, removing the need for in-person clinical observation. We propose to conduct an implementation study, to test the hypothesis that using electronic patient records from ZiDi, an innovative mobile tablet management application, coupled with supervision by IMCI-trained US physicians, using monthly auditing and remote feedback sessions, will increase HCW adherence to IMCI in rural health facilities and decrease child mortality in Kenya.