

Interdisciplinary Collaboration to Improve Neonatal Transport Patient Safety

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Abstract

This talk will describe completed and in-progress interdisciplinary research to improve neonatal patient safety on medical transports. The University of Washington and Seattle Children's hospitals receive pediatric referrals from a geographic region of a size that is one-fourth the landmass of the U.S. and includes the states of Washington, Alaska, Montana and Idaho (WAMI). This region features large urban centers and wide expanses of rural and remote areas. The NEST Patient Safety Learning Laboratory to Improve the Safety and Value of Interfacility Neonatal Transports was established in 2019 with funding from the Agency for Healthcare Research and Quality to advance patient safety and high-value care for critically ill newborns during medical ground or air transport from one hospital to another within a regional network in the Pacific Northwest. The project used a five-stage innovation cycle, including: problem analysis, design, development, implementation, and evaluation to identify and address the salient issues and risks of regional neonatal transportation for which new and innovative approaches were needed. In collaboration with transport providers and other stakeholders, we analyzed current workflow processes, transport records and facilities at referral and receiving facilities to develop a complete understanding of system issues and patient safety risks. This detailed problem analysis phase enabled the development of a discrete event simulation and new clinical workflows including telehealth triage, with the goal of optimizing regional transport of newborns to facilities with the appropriate level of care and availability of space and staffing. With the input of clinical transport team staff and stakeholders including parents, investigators from the Departments of Pediatrics and Industrial and Systems Engineering are designing and testing the use of a simulated transport monitoring and communication application to evaluate its impact on situational awareness and communication.


Bio

Dr. Rachel Umoren is an Associate Professor of Pediatrics in the Division of Neonatology at the University of Washington where she is Associate Division Head for Research, Director of Research for the Neonatal Education and Simulation-based Training (NEST) program and Inpatient Medical Director for Telehealth at Seattle Children's Hospital. She also holds adjunct appointments in the Department of Global Health and Department of Surgery Division of Healthcare Simulation Science. Her NIH and AHRQ-funded research focus is on improving neonatal resuscitation and care practices through virtual simulation education in high and low resource settings.

Date & Time

 April 25, 2023

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 11:30 am - 12:20 pm