Harmful Medical Errors Drop nearly 40% after Implementation of Program to Improve Provider Communication with Families

Bethesda, Md. — Harmful medical errors decreased by almost 40 percent after implementing an intervention designed to improve communication between healthcare providers, patients and families, according to a new study published Dec. 6 in the British Medical Journal by researchers at the Uniformed Services University of the Health Sciences (USU) and Walter Reed National Military Medical Center (WRNMMC) in conjunction with the Patient and Family Centered I-Pass Study Team.

The study, “Patient safety after implementation of a coproduced family centered communications programme: multicenter before and after intervention study.” The intervention, referred to as Patient and Family Centered I-PASS, involved changes to verbal and written communication during morning “rounds,” when providers – usually doctors and sometimes nurses – meet outside patient rooms to review the care plan for hospitalized patients, often with minimal patient involvement. The intervention emphasized family engagement, structured communication, and health literacy, while also minimizing medical jargon on rounds. The intervention also allowed families to share concerns and ask questions at the start of rounds, and allowed them to “read back” their understanding at the end of rounds.

The study involved pediatric units in seven North American hospitals from December 2014 to January 2017. At each site, the team of researchers measured care processes and outcomes three months before the intervention, followed by a nine-month intervention implementation and then a refinement period. They reviewed 3,106 patient admissions for medical errors and adverse events, representing all patients admitted on the study units during the study period. Overall, they found harmful medical errors decreased by 38 percent after implementation of the I-PASS intervention during rounds.

In addition to improvements in safety, the researchers also found many aspects of patients’ hospital experiences and communication also improved when implementing I-PASS. Families and nurses were also significantly more engaged in the process. Rounds did not take any longer or involve less education of resident-physician and medical students.

“Our study highlights what we in Pediatrics have always suspected – that including patients and families in shared decision-making during rounds not only increases patient and family satisfaction, but also improves patient safety,” said Army Maj. (Dr.) Jennifer Hepps, primary investigator at WRNMMC who now serves as associate professor of Pediatrics at USU and the National Capital Consortium Transitional Internship Program director.

Retired Army colonel Dr. Clifton Yu, professor of Pediatrics at USU and deputy director of Education, Training, and Research at WRNMMC, added that it has already been shown at WRNMMC and at other study sites that standardizing provider-to-provider communication using I-PASS improves patient safety,
but “this study confirms our belief that engaging patients and families in this standardized communication improves patient care and safety as well.”

USU associate dean for Simulation, Dr. Joseph Lopreiato, also participated in the study as a member of the I-PASS Study Group, which consists of more than 100 collaborating parents, nurses, and physicians, including health services researchers, medical educators, hospitalists, communication experts, and health literacy experts.

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The Uniformed Services University of the Health Sciences (USU), founded by an act of Congress in 1972, is the academic heart of the Military Health System. USU students are primarily active-duty uniformed officers in the Army, Navy, Air Force and Public Health Service who receive specialized education in tropical and infectious diseases, TBI and PTSD, disaster response and humanitarian assistance, global health, and acute trauma care. A large percentage of the university alumni are supporting operations around the world, offering their leadership and experience. USU’s graduate programs in biomedical sciences and public health are committed to excellence in research and oral biology. The university’s research program covers a wide range of clinical and basic science important to both the military and public health. For more information, visit [www.usuhs.edu](http://www.usuhs.edu).

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