What causes diagnostic errors: Behavioral determinants of the health care team

Jennifer Tavares-Kitchen, Kelsey Seaborg, Rabi F Sulayman, Laila Younes, Jean Smith and Mary Clark
Advocate Children's Hospital, USA

Introduction: The implementation of patient safety initiatives that focus on the prevention of process-driven medical errors has been very successful in reducing hospital acquired infections and medication and surgical errors. Cognitive errors, however, that result in delayed, missed or wrong diagnosis (many of which result in serious harm and huge financial penalties) continue to persist. They are rarely reported or addressed and no hospital in the USA is counting diagnostic errors, despite the fact that they are more critical in determining outcomes than any other type of error. Exact causes and intervention strategies continue to be elusive. Various theories have been proposed and several contributory factors have been identified, but the debate on a precise and preventative model continues with no consensus. Most of the published literature relies on retrospective analysis and autopsy findings of such errors. We have decided to launch a prospective study to identify diagnostic errors in real time and to analyze the causes and the elements required to develop a standardized and effective model of prevention.

Materials & Methods: The study started in March 2017 and is ongoing. In the first phase of our study, we decided to analyze how the patient care delivery model functions on the inpatient units. We utilize the Family Centered Patient Rounds model. The team is headed by a faculty member (hospitalist) in addition to the nurses and trainees (residents and medical students). We focused on the medical-surgical floors and did not include the critical care units. Medical students were assigned to observe the function of the team for the full duration of the 12-hour shifts and completed these observations for 15 shifts covering the morning, evening and weekend shifts on two separate units. The observation parameters included the frequency and length of time each of the team members spent on bedside care, medication delivery, utilization of the Electronic Medical Record (EMR) and supervision of care. We also defined what constitutes a medical error and requested voluntary counting and reporting of such errors as they occur. The observational periods for the nursing staff were completed. The observational periods for the rest of the team members are still ongoing. The shortest and longest time periods a nurse spent in completing their assignments were recorded and the medians were calculated.

Results & Conclusion: Nurses spent, on average, about 15 minutes at the bedside, five minutes on administering medications, 45 minutes on the EMR per patient per 12-hour shift and 150 minutes participating in the Family Centered Rounds and signing off on their patients. This is approximately four hours out of a 12-hour shift, the rest of which is spent on activities related to the patient, but not direct care. Initial observations for the rest of the team members indicate that time availability and direct supervision of the trainees by senior physicians could be improved. These results suggest that essential elements of a model to prevent diagnostic errors, such as frequent and regular assessment of a patient’s condition and progress after admission, monitoring and accurately interpreting or requesting further diagnostics, may have been compromised. It is difficult not to conclude that the first step in developing a model to prevent diagnostic errors ought to be modifying how members of the health care team function on the inpatient units. A special task force has been formed to investigate this issue and make recommendations.

Biography
Jennifer Tavares-Kitchen is the Manager of Clinical Operations of General Pediatrics, Advocate Children’s Hospital-Oak Lawn Campus. She has completed her Bachelor of Science at Lewis University in Romeoville, Illinois. She has recently completed her MBA and MSN dual degrees at Lewis University in Romeoville, Illinois. She is currently enrolled in the DNP program at Lewis University in Romeoville, Illinois.

Kelsey is a Registered Nurse at Advocate Children’s Hospital in Oak Lawn, IL. She works on a cardiac medical/surgical inpatient unit, where she has been working as a staff nurse for 6 years. Kelsey received her Bachelor of Science in Nursing from Illinois Wesleyan University in Bloomington, IL. She serves as the Unit Council Chair for her unit, as well as the Shared Governance General Pediatrics Co-Chair. Kelsey is a safety coach, a clinical coach, and part of the Advocate Nurse Career Advancement Program.

jennifer.tavares@advocatehealth.com
kelsey.seaborg@advocatehealth.com