New Questions on the Road to Safer Health Care

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Patient safety remains a major concern in the United States and worldwide. The most recent estimate from the US Department of Health and Human Services suggests that as many as 180 000 patients may die each year due to medical care–induced harm,[1] a figure that would make it the nation's third leading cause of death. An even higher number of patients suffer injuries due to medical care, from the minor and temporary to the life-threatening and permanently debilitating. Worldwide, similar rates of harm due to medical care are seen[2]; it is likely that millions worldwide die annually from preventable adverse events. Disturbing as these estimates may be, they are largely derived from studies of hospitalized adults. They reflect neither the true burden of harm that occurs in the community nor the true burden of harm to children.

In an article in this issue, Walsh et al[3] shine new light on an underexplored facet of the patient safety problem, in a small but rigorous, prospective observational study conducted in the homes of children with cancer. Through direct observations of medication administrations and reviews of patients' prescribed medications, the investigators detected 72 medication errors in just 92 home visits. Although approximately one-half of the errors were deemed trivial, 40 had the potential to cause harm, and 4 did cause harm. The identification of even these few injuries in such a relatively small sample of children is cause for serious concern. More than 10 000 children are diagnosed with cancer each year in the United States,[4] and many of the home medication errors identified in this study are undoubtedly experienced not only by children with cancer, but by children with other acute and chronic illnesses treated in part at home.

The study by Walsh et al[3] reminds us that we are but at the very beginning of a long and winding road to safer health care. The ongoing epidemic of medical errors became visible to the health care community at large and the public just over a decade ago. In that time, initial investments in improving safety have yet to yield reductions in overall rates of harm due to medical care.[5] The difficulty in making progress is a function of the multiplicity of ways in which errors occur in hospitals and in the community, the cultural and systemic challenges of fixing broken systems of care, and the lack of coordination of most improvement efforts across centers and settings. Although reliable tools for tracking rates of harm over time, such as the Institute for Healthcare Improvement's Global Trigger Tool, have been developed,[6] such tools have not been implemented in most health care settings to guide local or national improvement efforts. Without the routine collection of high-quality data regarding the frequency with which harm due to medical care occurs, it is difficult for health care systems to sustain their focus on this problem and prioritize solutions.

In the hospital setting, however, progress has been made on some fronts. Through well-coordinated, multi-institutional efforts, the past

few years have witnessed remarkable reductions in certain discrete types of preventable medical injuries, including catheter-related bloodstream infections and surgical complications.[7,8] Hospitals that have implemented computerized order entry systems with decision support and electronic documentation systems have been found to have lower complication rates, mortality, and costs.[9] New policies and programs that address provider work hours and fatigue-related errors, as well as teamwork and handoff errors, have been developed[10] and hold the potential of providing further benefits.[11]

Similar strategies will need to be developed and implemented in outpatient settings. From the current study of Walsh et al,[3] it is clear that more effective scaffolding of parents who care for ill children is required. Developing better communication strategies with parents will be crucial. In addition, medication packaging innovations may be needed to reduce the risk of using outdated or mislabeled medications. As these and other approaches are developed, rigorous testing will be required to determine their effectiveness, and ongoing efforts will be needed to iteratively improve and then widely disseminate these methods so that they provide the maximal benefit for patients nationwide.

As the second decade of the patient safety movement gets underway, greater focus, effort, and an investment of research and implementation funding will be required to realize the potential of early research into the causes and solutions to medical errors. Improving the safety of care in the hospital and community requires fundamental changes in the culture of our health care system, the development of robust safety surveillance systems, a deep commitment to improvement, and major changes in our processes of care delivery. These goals are not easy, but with continued work, they can be achieved. Their realization will reduce waste in the health care system, improve the quality of health care, and most importantly, improve the lives of our patients.

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