Set of specific interventions rapidly improves hospital safety 'culture'

December 2 2010

A prescribed set of hospital-wide patient-safety programs can lead to rapid improvements in the "culture of safety" even in a large, complex, academic medical center, according to a new study by safety experts at Johns Hopkins.

"It doesn't take decades or tons of money to get from a culture that says 'mistakes are inevitable' to a belief that harm is entirely preventable," says Peter Pronovost, M.D., Ph.D., a professor of anesthesiology and critical care medicine at the Johns Hopkins University School of Medicine and leader of the study published online in the journal *Quality and Safety in* Health Care. "What it takes is leadership."

Drilling that belief in prevention into dozens of disparate hospital units can seem a daunting task, Pronovost acknowledges, but he says he was pleasantly surprised by the results of his latest study, which was conducted at the thousand-bed, 144-unit Johns Hopkins Hospital in Baltimore. Establishing a sustained culture of safety in health care has been associated with better outcomes for patients in previous studies.

From 2006 to 2008, Pronovost's team implemented a comprehensive, unit-based safety program, or CUSP, at JHH, designed to make mistakes more transparent and use that and other tools to improve the culture of safety. CUSP relies heavily on "local staff" training in the science of safety — how to identify problems, report them, measure them, plan and implement corrections, and measure again. It also embraces discussions about improving communication and teamwork.

A novel layer of CUSP is buy-in from the senior management of the hospital, with an executive meeting monthly with each unit's patient safety team and other staff to ensure that resources are made available for quick, evidence-based interventions necessary to reduce risks to patients.

Johns Hopkins also put in place an electronic event-reporting system, which all staff members are encouraged to use. All reported events are reviewed by the hospital's patient safety office, categorized and assigned to a designated and accountable improvement team. The review helps to identify trends and give feedback to those on the front lines.

In the new study, hospital staffers on each unit were surveyed annually from 2006 to 2008 to assess safety attitudes and to determine whether the CUSP program appeared to be working. Researchers determined that a safety goal was achieved when a unit met or exceeded a 60 percent positive score on a five-point Likert response scale, from strongly disagree to strongly agree.

In 2006, the first year, 55 percent of the units achieved the safety "culture" changes set for them. In 2008, 82 percent reached the goal. The teamwork goal was met by 61 percent of units in 2006 and 83 percent of units two years later. In both years, survey response rates hovered near 80 percent of staff members.

"We want a culture where nurses aren't afraid to raise concerns with doctors, where problems are solved not by looking at who is right but what is right for the patient, where staff believe that hospital leaders are committed to make health care safe," Pronovost says. "We don't want a place where the staff wouldn't be comfortable being treated as patients."

Pronovost says his research shows that when a hospital makes a commitment to safety interventions, improvements can be made. One

limitation of the study, he says, was that improved safety culture could not be tied to improved patient outcomes.

Meanwhile, Pronovost says that if a large institution such as Johns Hopkins can achieve such gains in culture, smaller hospitals may be able to achieve even more success.

"If we can do it in our organization, it's much easier to do in smaller institutions," he says. "In this case, size is a limitation."

Provided by Johns Hopkins Medical Institutions