# Teamwork Training May Improve Patient Safety

BY HEIDI SPLETE
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WASHINGTON — Patient safety problems in hospitals often stem from a lack of teamwork and poor communication, James Battles, Ph.D., said at a conference sponsored by the National Patient Safety Foundation.

"In health care, if we don't have good teamwork, patients die," said Dr. Battles, the senior service fellow for patient safety at the Agency for Healthcare Research and Quality (AHRQ).

"Teamwork is not unique to health care, and what we know about teamwork research comes from a number of disciplines, namely the military," he said.

In the wake of "To Err Is Human," the 1999 Institute of Medicine report that raised awareness of medical errors and called for better teamwork among physicians, AHRQ partnered with the Department of Defense to develop a teamwork training program. The resulting Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) program was designed to help doctors and hospitals integrate teamwork principles into their daily activities as a way to reduce clinical errors and to improve patient outcomes, patient satisfaction, and hospital staff satisfaction.

Poor communication and other teamwork issues usually are to blame when a serious medical error occurs in a hospital, case studies have shown. "There is a growing scientific body of literature that indicates that medical teamwork can improve the quality of the clinical process," Dr. Battles said.

One key characteristic of successful teams is a shared mental model, which means that members of the team are "on the same page" and have a mutual sense of trust and a sense of being part of a team working toward a common goal. Each member of a successful team knows his or her role. And the most successful teams have supportive leadership.

Physicians can download materials from the AHRQ Web site and customize them to suit their practices. TeamSTEPPS became widely available in November 2006, and about 50 medical centers across the United States have used the program to improve teamwork and patient safety in their facilities, Dr. Battles said.

TeamSTEPPS offers ways to transform hospital culture by addressing the root causes of serious safety problems, particularly failures of communication.

"The program offers an excellent model and thorough instruction on how an institution can alter [its] culture and support enhanced teamwork," Dr. Mark V. Williams, professor of medicine at Emory University in Atlanta and director of the Emory Hospital Medicine Unit, said in an interview.

"It especially empowers nurses and other health care staff to speak up and alert their colleagues and physicians when patient safety is at risk," said Dr. Williams, who is evaluating the TeamSTEPPS program for possible use at Emory.

Key team events that make up the TeamSTEPPS program include briefs, huddles, debriefs, and conflict resolution, Heidi King, director of DOD's Healthcare Team Coordination Program, said at the meeting. A brief is a short gathering of caregivers to review what is scheduled for the day. Topics include assignments, a review of relevant patient data, plans for specific patients, staff availability and workload, and resources.

"The idea is that we are creating words that people can use, when we say 'get together for a brief or a huddle,' everyone knows what is meant," Ms. King said. "What we call the 'huddle' is for problem solving and to reestablish situation awareness. An example of a huddle: When a core care team, such as a surgical team or ob.gyn. team, meets for a quick review prior to a specific procedure."

The debriefing is the step in which quality improvement occurs. Team members meet after the procedure or the next day to review events, even if everything went well the previous day. "This is where patient safety needs to take place, on the front lines of patient care," Ms. King said.

A debriefing may include conflict resolution. The TeamSTEPPS material offers a constructive approach to resolving conflicts among team members in a four-step process called the DESC:

► Describe the specific situation or behavior that caused conflict.

► Express how the situation made you feel and what your concerns are.

► Suggest alternatives and seek agreement.

► Consequences should be stated in terms of the impact on team goals.

The outcomes of the training can be measured by improvements in four core skill areas: leadership, situation monitoring, mutual support, and communication. (See box at left.)

Program participants develop a combination of knowledge (of the shared goals), attitudes (of mutual trust and support), and skills (related to accuracy, efficiency, and safety) that ultimately improve patient safety, Ms. King said.

"The big thing is sustaining the changes in attitude," Ms. King said. "Implement the training in one section of the hospital, start monitoring what is going on, and communicate about what is working and not working, and then expand the training to other areas of the hospital," she advised.

In order to change a hospital culture with teamwork training, create opportunities for team members to practice what they learn, then celebrate success as a way to promote progress, she added.

Barriers to good teamwork include inconsistency in team activity, lack of information sharing, hierarchy, defensiveness, varying communication styles, overwork, misinterpretation of cues, and confusion about one's role. The TeamSTEPPS strategies of better communication through briefs and huddles, as well as through feedback, patient advocacy, and mutual support, can combat these problems, Ms. King said, and result in mutual trust, improved performance, and patient safety.

Developing a team mentality is easier said than done. "We all train separately, and we come together and are expected to work together," she acknowledged.

But physicians can learn the concept of better teamwork as a way to improve patient safety, said Dr. Alison Clay, who participates in TeamSTEPPS at Duke University in Durham, N. C.

TeamSTEPPS at Duke began in the pediatric ICU and it has spread to the operating room. "We are taking it to different parts of the hospital," said Dr. Clay, an internist with appointments to the departments of surgery, and of internal medicine and pulmonary critical care at Duke. The program is likely to move next to the hospital wards and hospitalists and attending physicians, and then to clinics, she said.

The program starts with lectures and conversation and then proceeds to use of simulations and a debriefing to assess how the participants worked as a team.

Dr. Clay has participated in the TeamSTEPPS curriculum, and she has trained to coach others in teamwork building in her role as the capstone course director for fourth-year medical students. "We are committed to teamwork training for all the medical and nursing students," she said.

Dr. Clay has a unique perspective on patient safety: She was a victim of a medical error at Duke when she arrived at the emergency department as a patient and went into respiratory arrest after being given a medication meant for the patient across the hall. ■

*For more information about TeamSTEPPS or to review and order materials, visit www.ahrq.gov/qual/teamstepps.*

## Key Skills for Team Effectiveness

The TeamSTEPPS approach is an evidence-based framework that is designed to improve team performance in all areas of health care.

According to AHRQ, the framework integrates four key skill areas:

► **Leadership.** This means the ability to coordinate team activities by ensuring that the team's action are understood, that new information is shared, and that team members have the resources needed to do their jobs.

► **Situation monitoring.** This involves actively scanning and assessing the elements of a situation to get more information, gain a deeper understanding, or maintain awareness to support the function of the medical care team as a cohesive unit.

► **Mutual support.** Team members must be able to anticipate and support team members through knowledge of common goals and recognition of the team members' responsibilities and workload, and being willing to help where needed to improve patient care.

► **Communication.** Team members must exchange information clearly and accurately.

The TeamSTEPPS materials incorporate specific strategies to ensure clear and accurate communication, including the SBAR (Situation, Background, Assessment, and Recommendation) technique for communicating critical information that requires immediate attention, and the use of "call outs" and "check backs" as techniques for team members to stay informed, especially in critical care settings.

# Hospital Staff Often Override Systems' Drug Allergy Warnings

WASHINGTON — Clinicians ignored more than half of drug allergy warnings generated by computerized physician order entry programs, based on a review of nearly 30,000 medication orders for 2,732 hospitalized patients.

To determine how often computerized allergy warnings for medications were overridden and why, Philip J. Schneider of the Ohio State University, Columbus, and his colleagues analyzed data from four 1-week intervals and one 16-week interval between August 2003 and February 2005. They presented their findings in a poster at a conference sponsored by the National Patient Safety Foundation.

Computerized physician order entry (CPOE) programs allow physicians and other qualified clinicians to enter medication orders directly into a database in order to reduce the ambiguity of handwritten prescriptions. Once a prescription has been entered into the database, the system generates alerts regarding patient allergies and potential drug-drug interactions.

Clinicians overrode warnings about potential drug allergies in 56% of the orders, and changed the medication in 44% of the orders.

When the data were broken down by provider type, physicians were the least likely to override warnings, although more than half of them did so. A total of 54% of physician medication decisions overrode the warnings, compared with decisions by pharmacists (55%) and nurses (61%).

The most commonly cited reason for overriding the warnings was that the patient had tolerated the drug in the past. Other reasons included "not a true allergy," "medical reason outweighed risk," and "physician/pharmacist approved."

CPOEs are not yet widely used, but they have the potential to improve patient safety, the researchers noted.

**—Heidi Splete**