Targeted Solutions: Joint Commission Center for Transforming Healthcare Takes on Patient Falls

Each year, about 1 million people in the United States fall in the hospital. Between 30% and 35% of these falls result in injuries, often extending patient stays or requiring additional treatment. Aprroximately 11,000 people also die every year from falls in hospitals.[1]

Given these numbers, fall prevention has become a top concern for health care organizations around the country. Many facilities have directed their energy into staff education and creating safer environments. However, finding successful methods for mitigating the risk has often been a struggle. Traditional safety efforts have not been enough to reverse the statistics on patient falls.

"We know that there are thousands of falls in health care facilities each year despite efforts to prevent them," says Anne Kilpatrick, Project Lead and Black Belt at the Joint Commission Center for Transforming Healthcare. "These events are considered preventable by the US Centers for Medicare & Medicaid Services and should never occur."

In an effort to address patient fall prevention, the Center collaborated with seven participating facilities, ranging from a 178-bed community hospital to a 1,700-bed academic medical center. Kilpatrick says the Center worked with participating organizations that were skilled in Robust Process Improvement® (RPI) and the DMAIC approach. RPI is a fact-based, systematic, and data-driven problem-solving methodology that incorporates tools and concepts from Lean, Six Sigma, and change management. *DMAIC* stands for Define, Measure, Analyze, Improve, and Control, and is a tool in the RPI methodology that the Joint Commission Center for Transforming Healthcare employs to identify and implement improvements. All of the project participants used RPI methods and tools during the 18-month project to identify causes and develop solutions to prevent patient falls.[1]

Each participating organization selected one or two inpatient units to serve as pilot sites. The main goal was to decrease the fall with injury rate by an ambitious 50%. The secondary goal was to decrease the overall fall rate by 25%.

Using risk management reporting systems, patient charts, and staff and patient input, the hospitals gathered data related to falls to determine contributing factors—variables that increase the risk of a patient fall. The participants looked at a variety of influences such as medication, environment, equipment, education, and patient characteristics.

"The teams realized that the contributing factors varied from one organization to the other. This helped to illustrate [that] to reduce the falls rate you first had to understand which contributing factors applied to falls in your organization or unit," Kilpatrick says. "As the data for each organization were analyzed, the top contributing factors became apparent for each. This helped the organization focus its improvement efforts on the top factors that would result in the greatest improvement."

A fall with injury can have a devastating impact on the health of vulnerable patients.

With help from the Center's Black Belts, the hospitals identified contributing factors, validated them, started developing and implementing targeted solutions for the specific contributing factors at each hospital, and then pilot tested and validated the solutions. "Solutions were implemented according to the top contributing factors, and data on falls continued to be collected and analyzed at each site," says Kilpatrick. "In this way, it was determined whether or not the solution that had been implemented actually made an improvement."

As they discussed the contributing factors and data, participants recognized that fall prevention was not dependent on a single "silver-bullet solution," but on a comprehensive strategy based on a variety of targeted

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solutions—such as engaging patients and their families in safety processes, making fall data collection a consistent daily task, auditing the data periodically to ensure that they are correct, and strengthening relationships between health care staff and patients. It also meant adopting a culture of commitment to fall safety.

"One of the most important findings was that to create a 'culture shift' in the organizations, the staff had to be fully involved in the project. That meant training and mentoring each staff person on a unit, on all shifts, and keeping the goal of reducing falls a focus of discussion. It meant leadership commitment to the project and to reaching the goal," Kilpatrick says. "Even with the development of the solutions, the basics of managing and maintaining a culture shift to improvement is the key to success."

Success Built on Communication

Kilpatrick says participating organizations' success was built on communication. The teams knew conducting a project the way they had in the past had not been effective in reducing fall rates. They had to alter their approach. Much of that change, as well as solutions to fall problems, came from just getting the right people in the same room together to talk about the problem and potential solutions. The Joint Commission Center for Transforming Healthcare worked with the teams to follow the RPI methodology, which led to team meetings with representatives from different departments in each facility to discuss the problem, analyze the data, and develop solutions. Kilpatrick says that including the correct staff members in these meetings helped to inform the team not only about potential factors contributing to falls but also about how each department operates and how a proposed solution might be implemented.

Kilpatrick recounts one meeting in which the nursing staff brought up the problem of not being able to acquire a certain medication at the correct bedtime because the pharmacy closed early. Staff had assumed that the medications would not be accessible, Kilpatrick says. "By having a pharmacy representative in the meeting, the team learned that the issue had been resolved long ago, and the medication was available. The key is to communicate and have the right people in the project to help reach the goal."

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> ***Project Lead and Black Belt at the Joint Commission Center for Transforming Healthcare.***

Applying Tested Solutions

The demonstrated need for a comprehensive and more transparent plan for preventing falls and fall injuries made a big impact on how each health care organization created solutions. Through measurement, analysis, discussion, and testing the teams came up with a number of targeted solutions to creating a safer environment, including the following:

- Foster organizationwide awareness of fall safety and communicate it at every level of the health care organization.
- Engage patients and their families in the fall safety process at admission and encourage them to take an active role to help identify patients at risk for falling.
- Use a validated fall risk assessment tool that is fully integrated into the electronic medical record.
- Fortify the caregiver–patient relationship with hourly rounding and patient partnering programs.[2]

Working within these broad strokes, each organization worked to develop its own programs, tailored to its specific

The Preventing Falls Targeted Solutions Tool®

Anne Kilpatrick, Project Lead and Black Belt at the Joint Commission Center for Transforming Healthcare, says the Preventing Falls Targeted Solutions Tool (TST) is designed to be a guided, step-by-step application. It has been created in the DMAIC format by phases, with each phase having subsections in a progressive style: Define, Measure, Analyze, Improve, and Control.

The tool contains project tools and templates to help teams conduct a project of this type. Data can be collected either directly into the online form or captured on a paper Data Collection Form printed from the TST and then entered into the tool. As data are entered into the TST, the tool updates the results in real time. The tool performs analysis and will identify the top contributing factors for each project. That analysis then points to the specific targeted solutions for those contributing factors. The Preventing Falls TST will also create charts and graphs that can be shared with staff and leadership.

It was developed by the Center to share the robust approach to preventing falls with organizations nationwide. You can find more information about the TST and find tools for other projects at http://www.centerfortransforminghealthcare.org/tst.aspx.

For more information about the falls project, its solutions and the project team, visit the project detail page at http://www.centerfortransforminghealthcare.org/projects/detail.aspx?Project=7.

needs. This was seen not only with the original participating organizations but also with the pilot organizations that validated the initial work. Staff at one of the pilot hospitals, St. Mary Medical Center, Langhorne, PA, for example, developed a multidisciplinary fall prevention team, comprised of many representatives from departments including Physical Therapy, Pharmacy, and Volunteer Services. Team members meet monthly to continually assess and improve the hospital's fall prevention strategies. St. Mary also instituted a process to screen all newly admitted patients for fall risk factors and another to help identify high-risk patients. The nursing department also launched the internal awareness program, "Call Don't Fall," which encourages patients or their visitors to use the call light to request help before a patient tries to get out of bed.[3]

St. Mary's hospital admission packets for new patients now include fall prevention educational materials. The organization also created a Patient–Family Advisory Council, composed of 12 community members who meet monthly with St. Mary staff to provide feedback and guidance on ways to increase patient safety.[3]

Targeted Solutions

Through commitment, communication, culture change, and robust data-driven approaches to fall prevention, the teams were able to exceed the goals set at the project's start. They reduced their rate of patient falls by 35% and the rate of patients injured in a fall by 62%. During the eight-month postintervention phase of the project, an estimated 38 injurious falls were avoided at the participating hospitals.[2]

The robust approach, the measurement system, and targeted solutions were validated by five additional pilot organizations. The Joint Commission Center for Transforming Healthcare then developed the Preventing Falls Targeted Solutions Tool® (TST®) in August 2015. This online tool guides a project leader through this robust DMAIC approach mitigating falls and fall injuries. The Center estimates that using the Preventing Falls with Injury Project model at a typical 200-bed hospital could reduce the number of patients injured in a fall from 117 to 45 and avoid approximately $1 million in costs annually.[1]

"This has been a very gratifying project to be involved in," Kilpatrick says. "Organizations are all working on reducing the rates of falls, and we have created a tool that will certainly help reach these goals." TS

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