

Lean Principles Go to Work in the Hospital

By Deborah Porto

Mark Leonard, President and CEO, and Luanna Easton, Vice President for Performance Improvement, have been on a mission to increase the pace of continuous improvement to benefit patient outcomes at WestCare Health System. They decided to try lean.

WestCare partnered with lean experts from North Carolina State University Industrial Extension Service to apply lean methodologies to the medication reconciliation process, beginning with a two-day kaizen at Harris Regional Hospital in Sylva.

Good care cannot be provided without knowledge of a patient's current medication regimen. This medication reconciliation process includes four steps: verify, clarify, reconcile and transmit. "The Joint Commission's sentinel event database includes more than 350 medication errors resulting in death or major injury. Of those, 63 percent related, at least in part, to breakdowns in communication, and approximately half of those would have been avoided through effective medication reconciliation," according to a [report](#) by the Joint Commission, which provides accreditation to health care facilities.

A team of nurses, a pharmacist, a pharmacist technician, information systems support and an administrative director learned fundamental lean healthcare practices and then worked for two days in a kaizen training activity to apply lean practices to improve the medication reconciliation process.

WestCare Health System is a progressive, non-profit health care provider that delivers a full spectrum of health care for more than 80,000 people living in Western North Carolina. They acknowledge the leadership and assistance provided by Chat Norvell and CarePartners Health Services for the motivation to use lean healthcare practices to improve processes such as medication reconciliation.

Current Process

The team first identified the current medication reconciliation process. Each team member had a slightly different understanding of the process and questioned each other about details at different stages of the process. The team also identified the issues that can make the reconciliation process challenging.

"Patients may not know, not admit, forget, or don't take their medications," said Clara Franklin, an



Lean health care simulation exercise.

experienced admission nurse. “A common patient response may be that they take a ‘purple pill’, but not know what the purple pill is.”

The team then discussed what the ideal process would be and developed a colorful Post-it process map to display the process steps and problem areas that were wasteful or hindered the process. The team broke up into three groups and developed improved processes for the problem areas. The team then completed a kaizen newspaper that included people and time commitments for follow up activities.



Medication reconciliation process map

The team members presented their results and follow up plan in the kaizen report out meeting at the end of the second day to the nurse managers, CEO and senior administrators. Each team member gave part of the final presentation demonstrating the spirit of every employee contributing to the process.

“The team found issues the administration team would never have found on this problem” said Easton. “Our job as administrators is to give support to the team members by backfilling their jobs so the team can complete their work.”

Mark Leonard genuinely thanked the team for their time and commitment to this task. He told the team that they “showed the value of using our richest resource, our employees, to solve problems.” He asked the team to use what they learned in the kaizen training process in other areas in the hospital.

NC State’s Annah Poteat, the lean healthcare leader, expects they will succeed. “Mr. Leonard and his team are driving towards improvements to patient care and have seen lean work at other hospitals and are adapting it to work for them,” she said. “WestCare already has the culture in place to support a lean effort. They have adopted the most important aspect of lean, using employees to identify and solve problems. I believe they will be very successful.”