Doubling capacity in pre-admission treatment.

Early Lean success promotes a culture of improvement.

Pre-admission testing for same-day surgery is often chaotic. Orders for arriving patients are missing or incomplete. Nurses scramble to make corrections with last-minute calls to physician offices. Procedures are delayed. Patients are kept waiting. The operating room is thrown off schedule. What is wrong with this process?

Operating room improvements were a strategic priority for Solaris Health System, based in Edison, NJ. The organization chose Lean Skills Transfer as the framework for the initiative.

“We had an urgent need to see results immediately,” says Vinnie Brigandi, director of process improvement. “The Lean tools and concepts applied very well to the patient flow, efficiency and standardization issues we wanted to address. We also felt that our staff members working on projects could learn Lean methods quickly and become empowered to drive change on their own.”

The first step in the process, value stream mapping, produced a road map for specific improvement opportunities. As the first project, the Solaris team conducted a Kaizen (a rapid-cycle process improvement event) to streamline pre-admission testing (PAT) for same-day surgery.

PAT was being block-scheduled for 18 patients per day, an artificial capacity limited by a less-than-optimal process. The Kaizen broke the process down into its parts and revealed the sources of inefficiency.

Most significant was that surgeon offices that booked patient appointments were neglecting to provide orders or were sending defective orders. Defects were not corrected and were passed downstream. On any given day, the equivalent of one nurse’s time was spent chasing information and correcting orders.

After the Kaizen, the Solaris team took several corrective steps. PAT orders and anesthesia guidelines were revised to ensure the right tests were being performed. Also, the OR booking office no longer schedules PAT appointments until physician orders are complete and correct.

“The Lean Skills Transfer enabled by GE will allow us to continually look for ways to improve our processes. We’re equipping people with the tools and knowledge to say, ‘How can I make my work life better and more efficient?’”

Vinnie Brigandi
Director of Process Improvement
Solaris Health System
Edison, NJ

Perform at the Next Level through Culture-driven Performance.
This change effort included extensive collaboration with the surgeons and their office staffs. “We approached them saying, ‘Here’s what we need from you, and here’s the benefit to your office and your patients if you provide complete orders in a timely fashion,’” Brigandi says. This allowed the nurses to focus more on patient care.

Patient charts are now stored on carts instead of on shelves, providing easier access for clerical staff. Visual cues in the form of color-coded dots clearly show which charts need attention and at what level of priority, minimizing the amount of incomplete charts on the day of surgery.

The process improvements enabled Solaris to increase PAT throughput to 37 to 40 patients per day.

“By increasing our volume in PAT, we have seen a 24 percent increase in reimbursements this year over last year,” Brigandi says. “The staff members who saw the benefit of this Kaizen have helped set a good foundation for future initiatives. They believe in the tools and methodologies and have become promoters, encouraging others who have been asked to take part in Kaizens and other methods of process improvement.”

Solaris Health System: PAT Kaizen results

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
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</thead>
<tbody>
<tr>
<td>PAT patients per day</td>
<td>17-18</td>
<td>37-40</td>
</tr>
<tr>
<td>Appointments booked with defective orders</td>
<td>85%</td>
<td>0%</td>
</tr>
<tr>
<td>Process efficiency</td>
<td>22%</td>
<td>72%</td>
</tr>
</tbody>
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“The Lean engagement has given us a systematic approach to continuous quality improvement. It has helped our people improve communication across departmental lines and within departments, as well. It also empowered the staff to take charge of processes and to replicate the successes we’ve had in other areas.”

Kevin Fitzpatrick
Interim Director of Perioperative Services
Solaris Health System
Edison, NJ

“The Lean efforts offered us quick and tangible returns. We and our physicians benefited from faster turnaround times. It has been a new way of approaching the development of ideas to eliminate waste, improve efficiency and target growth opportunities — by pulling the best and brightest ideas from our staff members.”

Scott Gebhard
Executive VP and COO
Solaris Health System
Edison, NJ