ThedaCare selected its radiation oncology (rad-onc) department to kick off a systemwide effort to introduce lean management principles. Because it was preparing to invest in a CyberKnife and wanted to maximize its use, the department started by conducting a value stream analysis. A team of representatives from rad-onc and other hospital departments and patients mapped the total process, from making the first call for an appointment to ending treatment. After taking radiation oncology patients through the diagrammed flow, the department discovered the patients found value in only 10 percent of the treatment process.

The three areas of value were seeing a physician, receiving treatment and talking to a care navigator. "It was so striking—how long our patient waits were and what the patient really valued," says Editha (Edie) Krueger, MD, radiation oncologist.

Adhering to lean practices, the radiation oncology department held a series of rapid improvement events to help physicians, nurses and staff eliminate inefficient daily tasks and allow patients more face-to-face interactions. During this process, a sensei (leader) led representatives of the department, administrators and patients in a hands-on effort to brainstorm new approaches and build action plans. For each changed process, they set quality, business and employee engagement goals.

"We take on the urgency of patient care. So at first, it seemed counter-intuitive to slow down to understand our processes and roadblocks," says Karen Flom, manager of the rad-onc unit.

Patient satisfaction has soared, with 80 percent rating five key services a 5 out of 5 after the first year. Since then, 96 percent of patients have rated the five services a 5 each year.

Removing redundancies and non-valued tasks allowed the department to absorb additional patients for the CyberKnife by hiring two new full-time employees rather than the 3.7 new FTEs it had expected to need.

Delivers care at the pace the patient sets, with some wanting to hear results or updates as soon as they are available, while others want to wait.

A growing number of hospitals are using lean or Six Sigma management principles. A 2009 survey of 77 hospitals by the American Society for Quality found 53 percent of hospitals report some level of lean deployment, and 42 percent of hospitals report some level of Six Sigma deployment. Just 4 percent, however, say they have fully embraced lean, as ThedaCare has.

The transition to lean management was not always easy. "It's hard to implement change, and we needed to change," say Dr. Krueger. "Some groups in our departments were more resistant than others. During our first time around, we found a pace we could all absorb well."

STREAMLINING RADIATION ONCOLOGY PRACTICES TO INCREASE PATIENT SATISFACTION

**The Problem**

ThedaCare is a community health system with four hospitals and 20 physician practices in northeastern Wisconsin.

**Results**

- Productivity rose 30 percent in the first year, then another 58 percent in the second year.
- Gross revenue increased 24 percent in the first 12 months and 26 percent more the following year.
- More than halved the time between an initial patient call to first appointment, from seven days to three days.
- Reduced the time between patient referral to treatment from 26 days to 16 days in the first year, then cut it to 7 days the next year.

**Background**

A growing number of hospitals are using lean or Six Sigma management principles. A 2009 survey of 77 hospitals by the American Society for Quality found 53 percent of hospitals report some level of lean deployment, and 42 percent of hospitals report some level of Six Sigma deployment. Just 4 percent, however, say they have fully embraced lean, as ThedaCare has.
ThedaCare sees this approach as critical to attracting both patients and employees. “Lean management has helped us to practice a higher scope of care,” said Barnas. “Our patients are happier because they’re getting better service, and our employees are happier because they are able to focus on the end result, providing exceptional patient care. It’s a win-win.”

Principles of Performance Excellence
Patient Focus

Now, when a patient comes for a consultation, the entire care team plans its schedule to accommodate the patient—instead of the reverse. The team includes nurses, dosimetrist, radiation physicist, radiation therapist and radiation oncologist. As a result, the patient goes through a simulation and any magnetic resonance images they might need the same day. Before the patient leaves the center, a physician reviews the images to be sure they are accurate and the proper views. This way, ThedaCare obtains all of the information needed for treatment planning without requiring repeat patient visits or other delays, which speeds the start of treatment.

“We used to plug in a patient wherever there was an opening,” recalls Dr. Krueger. “It used to take two weeks to see me and three weeks before getting treatment. Now, it’s seven days or less.”

Eliminating Process Variability

The radiation oncology department created templates to better manage workflow and the time of both patients and staff. ThedaCare also standardized the exam rooms, so all of the equipment and supplies are the same and in the same place in each room. It then created a regular schedule for restocking the rooms every morning.

In the past, “I would do a head and neck exam and walk out of the room five times because I didn’t have all of the equipment I needed,” says Dr. Krueger. The new approach “allows doctors and nurses to be so much more productive and it makes for a better patient experience.”

Creation of High-Reliability Culture

ThedaCare became an early health care adopter of lean methodology. Starting with rad-onc, ThedaCare created systems and processes of evidence-based care for the entire health system. Equally important, it sets goals and then measures processes and outcomes, so it can spot inefficiencies and correct problems.

“We went from working independently to working as part of the whole department,” says Flom. “Now we all understand how the entire system works, so we can agree on priorities.”

Continual Improvement

After its first round of changes, the rad-onc department saw substantial progress but it knew it could still do better. In the second year, ThedaCare focused on alleviating the staff’s biggest headaches by involving them in further process redesign efforts. In some cases, it takes plenty of trial and error before the rad-onc depart-
ment hits on the right process. With scheduling, the department tried four approaches before finding the one that works best.

Now, identifying opportunities and solutions for enhancing operations has become ingrained in the department. It holds daily huddles to assess improvement efforts underway and raise new issues. “We created a community of problem solvers and a culture of no fear,” says Barnas.