Almost a year after moving to computerized preference cards, the OR nursing staff in a small community hospital still didn’t want to give up the 5 x 7 cards they had relied on for years. They liked the convenience of jotting down changes and found the computerized cards were not user friendly. Neither set of cards was being updated consistently. With patient charging based on the computerized cards, a more organized process was needed.

“We had a parallel process—2 sets of cards to support the same thing,” says Jannifer McLean, RN, BSN, MSBA, CNOR, who led the change project as a recently trained Six Sigma Green Belt. She is surgical case manager for the 3-room OR at 130-bed St Joseph Mercy Livingston Hospital in Howell, Michigan.

McLean started by forming a team made up of an inventory coordinator, central processing staff, and OR staff nurses. Having staff involved helped ensure they would support the changes.

Rather than tackle all 400 to 500 preference cards at once, the team selected the 26 cards used most often by the 3 or 4 highest volume surgeons.

To help track progress, McLean calculated a baseline defect rate for the 26 existing computerized cards. She did this by running copies of the cards for 1 month and counting anything added or deleted during a case. She then calculated a defect rate for each card. The average number of defects per card was 7.3, and the defect rate was 27%. As the project progressed, she continued monitoring the defect rate and reporting it on control charts.

**What were the barriers?**

To help identify why nurses weren’t using the computerized cards, the team did a process flow diagram. Barriers they found:

- The computerized cards did not follow a standard format. The cards were originally entered into the computer without being reviewed or updated, and many weren’t accurate.
- There was no process for communicating changes to the computerized cards, while the 5 x 7 cards could be updated easily.
- The computerized cards included items no longer used, leading to inaccurate patient charges.

**Changing the process**

To start the change process, McLean set up an experiment to eliminate use of the 5 x 7 cards for the 26 procedures. These were the steps:

- The 26 cards were updated. The lead nurse for each service met with the surgeons to update their cards. The nurses also discussed what changes the surgeons would be willing to make that would save costs.
- The 26 cards were reorganized in a standard format developed by the team. Data entry to revise the cards was performed by Ann Lott, a surgical technologist who works night shifts.
- The new computerized cards were reviewed by the staff.
- On a predetermined date, the 5 x 7 cards were removed so the nurses had to rely on the computerized cards.
Remeasuring the defect rate for the 26 cards, McLean found it had been reduced to 2.4%. Consistent with the hospital’s Six Sigma process, she then monitored the defect rate on those cards for a year to make sure the process held up. The defect rate is now at 2.1%.

She calculates cost savings from updating the 26 cards and eliminating unneeded items was $135,000 from March 2006 through March 2007.

A routine for updates

A standardized process was developed for updating the cards, with a form developed for this purpose. During the case, if a surgeon makes a change that is expected to be permanent, the nurse notes the change on the form, and the surgeon signs it.

The form is routed to the charge nurse, who checks with the inventory coordinator to determine the cost of the addition. If the cost is minimal, the charge nurse approves it. If the cost is more than $100, the change is referred to the OR’s service delivery leader.

All preference cards have now been updated—and the team was planning a party to celebrate—and bury the old 5 x 7 cards.

Success factors

These were factors that enabled the team to improve the process:

• Leadership support. “If you don’t have leadership support, you won’t get very far,” McLean says.

• Consistent effort. The team made a commitment to meet every week for 1 hour. Staff nurses were included in the process. “They’re the driving force because they’re the ones who do the work,” says McLean.

• A champion. Joyce Kessler, RN, the service delivery leader, was the team’s champion. For example, Kessler worked with the system’s materials management department to make sure new supplies are added to the materials management database. Then they can be reflected on preference cards and used in patient charging.

• Streamlined format. In addition to being more user friendly, the computerized cards are formatted to flag items surgeons have agreed not to have opened unless needed, yielding additional savings.

• An organized updating process. Besides the obvious benefit of keeping the cards up to date, the new process enables managers to catch supplies vendors bring in for trial and bill for without official approval.

“The best part was identifying the barriers,” McLean says. “When we did the process flow diagram and cause-and-effect analysis, we were able to start thinking of solutions.”

McLean presented an abstract of the project as a poster at the 2007 AORN Congress in Orlando, Florida.