Restructuring circulator nurse role aids turnover

Second of 3 articles on applying Lean management to turnover time.

Efforts to weed waste from turnover time quickly took root in one 10-OR department. Within about a month after OR staff and certified registered nurse anesthetists (CRNAs) embraced the new process, turnover time decreased from about 26 minutes to about 20 minutes on average.

Three major changes were introduced:
- freeing the circulating nurse between cases from duties that did not add value
- adding a visual aid to keep the team focused on 20 minutes
- issuing pagers so all available staff can assist with turnover.

Turnover time had crept up at Henry Ford West Bloomfield Hospital, a 3-year-old community hospital in the Detroit suburbs. Previously an outpatient facility, the facility had been known for efficient throughput, says MaryClaire Dangel-Palmer, MSN, CRNA, director of surgical and anesthesia services.

Two-thirds of the surgical volume is outpatient, though with a focus on orthopedics, neurosurgery, and robotics, many cases are complex.

The extended turnovers were causing more cases to run over at the end of the day, resulting in overtime and work-life balance issues for the staff. Patients and surgeons weren’t happy about the delays. To address the problem, Dangel-Palmer and her team reached for their Lean management tools. All employees are trained in Lean as part of the hospital’s culture of innovation.

The parent Henry Ford Health System, known for its innovation, received the Baldrige National Quality Award in April 2012.

### Revised turnover process

#### Anesthesiologist
- Has prepared the next patient (assessment, nerve blocks, additional IV access).

#### End of case
- Staff transfer patient to bed. End of case is declared on pager system; all available staff report to room.
- OR RN announces time out of room and expected 20-minute return to room. All staff agree on time.
- OR RN remains in OR, completes care of any specimens, closes chart.
- Patient is escorted to PACU by anesthesia provider and any available assisting staff.

#### Between-case activities
- CRNA returns to OR to set up next case.
- OR RN goes to preop holding area to assess patient and confirm procedure.
- OR RN returns to OR to assist in setting up for next case. RN has 15 minutes of protected time to prepare the OR.
- CRNA goes to preop holding area to assess the next patient.
- With consent, H&P, and labs complete, the CRNA and team member move patient to OR in 20 minutes or less.
- Patient is greeted at OR door by OR RN with use of Virtual Ticket.*
- Handoff from CRNA to OR RN is completed before the patient is escorted into the room.

*Virtual ticket includes signed consent and updated H&P.

Source: Henry Ford West Bloomfield Hospital.
What were the barriers?
A team of managers and staff analyzed current process and identified a number of barriers:

- **Communication.** Communication among team members was not always timely. To encourage a quiet environment, there is no overhead paging system. Initially, pagers were distributed to turnover team members, but some pagers were turned off or unavailable. The wireless phone system didn’t have complete coverage. Staff members could not always be found when needed.

- **Patient readiness.** Patients sometimes did not arrive in a timely manner. Lab tests sometimes weren’t available. Some cases needed special preparations. Patient assessments had to be completed. Anesthesia providers required time to place lines and administer blocks.

- **Instruments and supplies.** These items were not always available.

- **Misconceptions.** Perceptions of turnover time differed. For surgeons, turnover time began when they finished with one patient until they could make the incision on the next. For managers and staff, turnover was from patient exit to next patient entry. For the project, turnover was defined as wheels out for one patient to wheels in for the next.

- **Staff.** Limited staff were available due to vacancies, patient transport needs, and other demands.

The improvements brought a change in culture that caught on quickly. Though the team had planned a 5-week roll-out, bringing 2 ORs on line each week, the new process took only 3.5 weeks to implement for all 10 ORs.

The CRNAs immediately adopted the changes and began spreading them to any OR to which they were assigned, Dangel-Palmer notes.

**Freeing the circulator**
A major change was restructuring the circulating nurse’s role to protect more of the nurse’s time in the OR to prepare for the next patient (sidebar).

Rather than accompanying the patient and CRNA to the postanesthesia care unit (PACU), the circulator reports to the CRNA in the OR, who conveys the surgical report to the PACU nurse. The OR RN remains in the OR to close out the record and delivers specimens to the specimen room.

The nurse then goes to the preop unit to assess the next patient and confirm the procedure, returning to the OR to prepare for the next case. This gives the circulator the remaining time to set up for the case. At or before the 20-minute mark, the CRNA and a preop team member (perioperative assistant, RN, or unit clerk) transport the patient to the OR.

The streamlined process still maintains the nurse’s ability to assess the next patient.

“We feel that completing the assessment is super-important for all of our nurses and CRNAs, and we’re proud we are able to do that,” Dangel-Palmer says.

**Adding visual aids**
A dry-erase board in each OR helps the team focus on the turnover process (illustration). At the end of each case, the circulator writes the patient’s exit time and the next patient’s expected entry time 20 minutes later.

For example, the nurse calls out, “Patient leaving at 9:00,” explains the OR manager, Deborah Gauthier, BSN, RN, CNOR. “The team’s expectation is to have the next patient in the room by 9:20. Visual aids work well—people see it, and they remember it.”
**Improving communication**

To be sure help is available at the end of a case, all staff members, including perioperative assistants (POAs), carry a pager.

When a case finishes, all available POAs go to the room to help, along with available nurses, surgical technologists, and clinical coordinators.

The team finds this approach works better than assigning POAs to specific rooms.

“This has kept everyone on their toes,” says Margaret Mulcrone, MSN, RN, CNOR, OR education specialist. “It became the culture of the department that we are all responsible, and we all help each other out.”

**Pulling the ‘andon cord’**

In Lean manufacturing, each person is responsible for the precision and accuracy of his or her part of the process. On an assembly line, when a problem is spotted, any team member can pull the “andon cord,” alerting the leadership that a problem is about to occur. Help is sent to remedy the issue to keep the line from stopping.

Similarly, in the OR, a team alerts the leadership when a problem would cause turnover time to exceed 20 minutes. For example, an instrument set is not available, a patient is not prepared, or there is a last-minute change in the procedure.

The team’s clinical coordinator or the OR board runner is notified so he or she can help mobilize the necessary supplies, instruments, or personnel.

**Sharing the data**

Data on turnover time and other metrics are widely shared on bulletin boards and by other means. The data are reviewed daily to check for outliers. The OR’s turnover team committee meets monthly to review the results and make adjustments in the process when necessary, Mulcrone notes.

Reports are color-coded by service so each team can see how it is doing and compare notes with other services.

“We post the data, we send reports to our leadership—and we celebrate,” says Dangel-Palmer. “People need to be rewarded because we are really pushing them.”

Once the changes were in place, minutes were quickly trimmed from the turnover process.

The biggest change of all, she says, “is a change in culture where getting the patient into the OR in 20 minutes is everyone’s job.”

—Pat Patterson

Henry Ford West Bloomfield presented its project in a poster at the AORN Congress in March 2012 in New Orleans.