Team participation and planning produce quality handoffs

A fter a poor handoff from the OR to the postanesthesia care unit (PACU) was identified as the culprit behind a serious adverse event, Nancy Robinson, DNP, MSN, RN, LHRM, CCM, made it her mission to avoid a recurrence.

“I’m passionate about safe patient hand-offs,” says Robinson. “I didn’t want this to happen to another patient.”

Robinson, who is director of education at Health Central Hospital, Ocoee, Florida, part of the Orlando Health System, tackled the project of improving handoffs as her doctorate in nursing capstone project, working closely with Marcia Olieman, MBA, RN, director of surgical services. The result was a tool that has boosted OR and PACU nurse satisfaction and is still being used 2 years later.

In 2006, the Joint Commission launched a National Patient Safety Goal for implementing standardized handoffs, and in 2013, the Commission’s Center for Transforming Healthcare released Improving Transitions of Care: Handoff Communications. The tool is based on the acronym SHARE: Standardize critical content, Hardwire within your system, Allow opportunity to ask questions, Reinforce quality and measurement, and Educate and coach.

Many hospitals are using these principles when they address how to conduct a handoff, which seems to be a simple task. But like a young person in whom a surgeon unexpectedly finds cancer, appearances can be deceiving. Handoffs aren’t simple. An effective handoff requires commitment, coordination, and yes, a bit of passion.

The value of handoffs
OR leaders, clinicians, and other administrators intuitively know that accurate handoffs help prevent errors that can harm patients. But handoffs can also improve outcomes. A study of 1,507 neonates, infants, children, and adults published in the Joint Commission Journal on Quality and Patient Safety found that using a structured handoff when transferring patients from the cardiovascular OR to the cardiac ICU significantly reduced the number of unplanned extubations and the amount of time patients were on the ventilator.

“The handoff protocol definitely contributed to those results,” says Mark Twite, MD, BCh, MB, an anesthesiologist at The Heart Institute of Children’s Hospital Colorado in Aurora and 1 of the study’s authors. Having an awareness and a structure to the handoff “shows we think it’s a really important part of patient care,” he says. For example, when the anesthesiologist tells the nurse and the respiratory therapist where the endotracheal tube is taped, both clinicians will know to speak up if they note even a small difference in placement.

Dr Twite attributes the reduction in ventilator time to setting expectations. “That helps the ICU team decide on who to fast-track for extubation, and the anesthesiologist, surgeon, and nurse are all on board with the plan. Everyone is hearing the same message.”

Assemble the right team
Like professional coaches, OR leaders must strive to build the best team possible to attain success. “It’s hard to get everyone to come to the table,” Olieman acknowledges.
At Health Central Hospital, a community hospital that has 8 ORs and performs nearly 5,000 procedures a year, she and Robinson surmounted that challenge by drafting champions from each area affected by handoffs to be on the team. The chief of anesthesia and a certified registered nurse assistant known for his strong patient advocacy, along with representatives from the PACU and the OR, comprised the team. These leaders were able to help “bring reluctant ones into the fold,” says Olie-man. The interdisciplinary team also managed to break down silos, getting staff from various departments to talk more about issues beyond handoffs.

Ina Cherepaha-Kantorovich, MN, RN (EC), advanced practice clinical educator for the preadmission, PACU, endoscopy, and cystoscopy units at Toronto General Hospital in Ontario, Canada, suggests asking for volunteers to fill staff spots on the team. The working group for handoffs facilitated by Cherepaha-Kantorovich and Maria Masella, MN, RN, educator in the OR, included 4 staff nurses from the OR and 4 from PACU.

“You also have to have organized meetings and follow-up during implementation so the process doesn’t fall apart,” she adds. “Include staff all the way.” Cherepaha-Kantorovich and Amanda Zakrzewski, a PACU staff nurse, spearheaded the process.

Think outside the box; a nonclinical person can be a great facilitator, says Mary Grzybinski, BSN, RN, administrative clinical advisor for PACU at Beth Israel Deaconess Medical Center (BIDMC) in Boston. A staff member from the business transformational office who is embedded in the perioperative area helped the 10-member multidisciplinary BIDMC team establish an effective handoff procedure.

“We are focused on clinical, so we don’t always see how to attack a problem from...
a bigger picture,” Grzybinski says. The business staff member “helped us see the business end and keep us focused.”

**Analyze the process**

Many OR leaders use Lean tools to analyze the handoff process. A value stream analysis showed the team at Health Central Hospital deficiencies in the current process, Robinson says. The team at BIDMC also performed a value stream analysis and identified several categories of changes that could be made.

“The value stream map helped us know how everyone perceived handoffs so we were on the same page,” Grzybinski says. Team members learned what others needed from them.

“PACU nurses sometimes only got part of a patient’s information because the provider didn’t realize that the whole picture made a difference in the case,” she says. “Then we did an impact difficulty analysis grid that helped us analyze the difficulty of fixing each problem and the impact fixing that problem would have on improvement in handoffs. Communication had the highest difficulty and the highest impact, so we decided to tackle that.”

The team created an affinity diagram that examined 4 areas: communication before transport, post-transport communication, disposition of the patient, and communication interoperatively to the unit that will receive the patient after surgery (sidebar above). Strategies were identified to address each area.

Robinson says a factor that’s easily missed in an analysis is whether people are focused on the handoff or on the task. When observing handoffs from the OR to the PACU, she was struck by the fact that participants were doing many tasks while trying to receive important patient information.

“When you are performing tasks and receiving information simultaneously, you don’t retain what you are being told,” she says. That led to the creation of a “no fly” zone—report is not given until basic tasks, such as connecting the patient to the monitor and oxygen, are completed, so the PACU nurse can give the other

A survey revealed OR nurses felt “devalued” because the PACU staff weren’t paying attention to what the OR nurses were saying. The PACU nurses revamped their approach, and the process was revised so that it better reflected contributions from the OR nurses.

**Handoff Communication Guidelines**

**PERIOPERATIVE PEARLS**

| Patient name: | |
| Procedure performed | |
| Patient age: | |
| Allergies: | |

**Primary language spoken:**
- English
- Other

**Past medical history:**
- Diabetes
- HTN
- COPD
- Asthma
- OSA
- Renal Disease
- Seizures
- CAD
- PVD
- CVA
- Liver Disease
- ETOH
- Smoking (ppd)
- Arthritis
- MRSA
- VRE
- TB
- C Diff
- Deaf
- HOH
- Blind

**Position during surgery:**
- supine
- prone
- lithotomy (type of stirrups: candy cane: other)
- jack knife

**Precautions:**
- falls
- Seizure
- Aspiration
- Decubitus
- Isolation
- Contact
- Droplet

**Personal Items:**
- Dentures
- Glasses
- Hearing Aids
- Prosthesis

**Vital signs:**
- Temp: ______
- HR: ______
- BP: ______
- RR: ______

**Equipment needs:**
- CPM
- Ventilator
- Wound Vac
- NGT
- Cell saver

**Communication before transport:**
- Family location
- Contact phone #: _____________________________
- Radiation: CXR

**Lines:**
- Central
- Arterial

**Blood products:**
- H&H
- BMP
- CBC
- PT/PTT
- T&C
- Accuchek
- Blood sugar

**Pain management:**
- PCA pump
- Epidural

**Equipment needs:**
- CPM
- Ventilator
- Wound Vac
- NGT
- Cell saver

**Radiation:**
- CXR
- Other

**Drains:**
- JP
- Hemovac
- Penrose
- Blake tube
- Chest tubes
- Lt
- Rt
- G tube

**Lines:**
- Central
- Arterial

**Blood products:**
- H&H
- BMP
- CBC
- PT/PTT
- T&C
- Accuchek
- Blood sugar

**Lines:**
- Central
- Arterial

This worksheet, which facilitates handoffs, is not part of the medical record.

Source: Health Central Hospital, Ocoee, Florida. Used with permission.
Put the process in place

Protocols, especially those incorporating checklists, are a frequent—and effective—solution to handoff challenges. For instance, a 2013 study in Pediatric Anesthesia found that a checklist dramatically improved the quality and reliability of the handoff.

Olieman recommends allowing protocols to develop organically. “We kept the flow of information during the handoff loose at first so that it could be developed, and then we standardized so it included what each person needed to know,” Olieman says.

Ultimately, the team developed a paper tool (sidebar, p 12). Olieman says the paper format is key to the tool’s success: “When a nurse gets a patient, she needs to know information really fast without flipping through a dozen computer screens.” The tool, which isn’t part of the permanent patient record, provides that.

“Although some people might think it’s double documenting (because some of the information on the tool has to be entered into the computer), it’s not,” Olieman notes. “It’s not hard and it’s not complicated. It’s like a worksheet.”

The tool has expanded so that it starts in the preoperative area and travels with the patient through the OR, the PACU, and onto the nursing unit.

“It’s color coded, so each unit has ownership for their section,” says Robinson, who adds, “It’s not just a piece of paper; it’s a process by how we can make the patient’s trajectory through the system safe and meet regulatory agency requirements.”

BIDMC’s guidelines “spell out what happens from step to step, whether the patient is going to the PACU or the ICU,” says Grzybinski, adding that scripts help everyone remember what needs to be included (sidebar, p 13). “Otherwise, people tend to tell what they think is important, which might not be what’s important to the other person,” she says, citing situations in which the anesthesiologist fails to mention the patient doesn’t speak English or can’t hear at all without his hearing aids.

“We try to broaden the horizons of all providers,” Grzybinski says. “It’s not just what one provider needs; it’s what we all need to take excellent care of the patient.” Laminated cards of the scripts are available.

The structured handoff used at Children’s Hospital Colorado outlines the order of report. After the patient is on the ICU monitor and the vital signs have been checked, the OR nurse and ICU nurse both verify the patient’s identification. The cardiac surgeon or fellow gives report, followed by the anesthesiologist or anesthesia fellow and the OR nurse.

Dr Twite says the team in the cardiovascular ICU then does a “wrap up, going through the plan for the patient—hemodynamic goals, where we are going with extubation, the plan for sedation—and at the end they cover any questions or concerns. Then the ICU assumes official care of the patient.”

Whatever the process, Cherepaha-Kantorovich emphasizes that consistency is
vital even if that means standing firm. “If a surgeon or OR nurse didn’t come, the PACU nurse didn’t accept the patient,” she says. “You need the consistency so that people understand it is serious; it’s important for the patient’s safety.” She and the OR nurse educator made sure they were available to staff to facilitate implementation, and now the process is standard practice.

**The time factor**
Rapid throughput is essential for a successful OR, so staff and leaders worry about the time spent on handoffs. Fortunately, this fear is often unfounded. “There was some reluctance [among] OR nurses to participate,” says Robinson. “They were eager to get back to the OR to start the next case.” By eliminating the inefficiencies discovered through the value stream analysis, however, nurses easily found the time they needed.

“Taking time up front can save time later on,” Cherepaha-Kantorovich adds. The handoff takes about 5 minutes and replaces the multiple calls PACU staff used to have to make to the OR to obtain missing information.

And, of course, time isn’t standing still in the OR while the nurse is in the PACU or ICU. “While we are doing the handoff, our team is doing the room turnover,” says Dr Twite. He says the entire team agrees that any delay “is a small price to pay for accurate handover of patient information. An accurate handover is part of excellent patient care and excellent outcomes.”

**Follow up**
To ensure the handoff process meets the team’s needs, it’s helpful to survey clinicians at key intervals. Robinson used a Likert scale to assess satisfaction among OR and PACU nurses before and after implementation. After implementation, satisfaction increased in both areas, with a particularly dramatic increase among OR nurses. “[The handoff process] helped them put aside the task part of the job and remind them why they became perioperative nurses,” Olieman says in accounting for the increase.

Cherepaha-Kantorovich surveyed staff before and after implementation and 1 year later. “The final evaluation was very positive,” she says, adding that the new process has now been in place for 18 months. Most surgeons and PACU, OR, and anesthesia staff believed the handoff tool had improved communication and helped to convey accurate patient information to the PACU staff.

**A commitment to patient safety**
“Anytime there is a change, it’s hard,” Robinson says. “But this [handoff tool] has become hardwired into the process.” Olieman says the tool is part of orientation and that the perioperative nursing council has taken ownership of it. Perhaps the most exciting payoff for the team at Health Central Hospital was that in 2012 they received an award from the Florida Hospital Association.

So what advice does Olieman have for other OR nurse leaders planning to work on handoffs? “Don’t be afraid to take on the big, scary project. It was overwhelming, but we did it.”

—**Cynthia Saver, MS, RN**

*Cynthia Saver, a freelance writer, is president, CLS Development, Inc, Columbia, Maryland.*
References
