What works to smooth preop process?

Three organizations describe steps they’ve taken to improve their preoperative processes.

Close ties with MD offices

Piedmont Hospital
Atlanta
500 beds, 21 inpatient and 8 outpatient ORs
24,000 cases per year

A close relationship with physicians’ offices keeps the preop process on track at this urban facility. The relationships were forged 15 years ago during a performance improvement project and have been maintained.

“When I pick up the phone and call a doctor’s office, I pretty much know who to direct my information to, and they know me. It’s very smooth,” says Kim Swanson, RN, CPAN, director of perianesthesia services.

A manual for physicians’ offices is available through the hospital’s intranet. The manual covers how to schedule a case; information the hospital needs; responsibilities of the office, hospital, and anesthesiology department; and how to handle patients with special needs, such as discharge planning, language services, and transportation.

The 9-room preadmission testing area reports to surgical services and is staffed primarily by RNs with a nurse practitioner, unit secretary, 2 charge nurses who share a position, and 2 chart-review nurses (1 RN and 1 LPN). The unit manages about 16,000 to 17,000 visits per year.

“We feel having the unit staffed by RNs is key to evaluating the patient’s needs before surgery,” says Nancy Flanagan, RN, CNOR, performance improvement coordinator for surgical services. Nurses do their own blood draws and EKGs while assessing the patient.

Preanesthesia assessments are usually conducted on the morning of surgery except for high-risk patients. Patients fill out a preanesthesia assessment during their preadmission visit, which is reviewed by a nurse. Patients with potential anesthesia issues are referred to the nurse practitioner, who acts as a central point for surgeons, anesthesiologists, primary care physicians, and the nursing staff.

The unit has employed a nurse practitioner since the early 1990s. Originally, the position was provided by the anesthesiology department but is now a hospital position. (Anesthesia services are provided by a contracted group.)

“We felt it was essential to have an advanced practice nurse in this role, and the hospital supported it,” says Swanson.

Most patients are walk-ins to the preadmission area because most of the surgeons’ offices are on the hospital campus. About 60% are seen prior to the day of surgery, with phone assessments for those who are healthy or cannot come to the unit.

All charts are reviewed 72 hours and 24 hours before surgery. Documents are
faxed to the hospital, with the original consent delivered by the patient or office staff. Office staff sign when they deliver forms.

The OR Committee strongly supports having the H&P and consent form on the chart before surgery.

“If these are not on the chart, the patient does not go back for surgery. There is no give on that,” Flanagan comments.

**Update note for the Joint Commission**

Piedmont recently changed its process for the Joint Commission’s requirement to have an update note on the patient’s chart at the time of admission.

The note is now provided by the anesthesiologist, who documents both the preanesthesia assessment and the update of the patient’s condition. The OR committee approved the change after reviewing the Joint Commission’s response to a frequently asked question (FAQ) on its website. The FAQ posted in February 2006 states, among other things: “In the situation where the patient is going to surgery within the first 24 hours of admission, the update to the patient’s condition and the preanesthesia assessment (PC.13.20) could be accomplished in a combined activity.”

The Joint Commission elaborated in a statement to OR Manager: “The anesthesia provider’s assessment of the patient on the day of surgery could be acceptable for the update to the patient’s condition if the anesthesiologist has privileges to perform the history and physical and updates, and the documentation includes information required to be addressed by the organized medical staff. The same documentation, if it includes the information required by the organized medical staff to be included in the preanesthesia assessment, could be used as the preanesthesia assessment.”

(The FAQ is at www.jointcommission.org. Look under Standards, Standards FAQs, Hospitals, Provision of Care, Assessment.)

Piedmont was surveyed by the Joint Commission in April 2006 and received no recommendations on the preop process. “They were complimentary of our admissions testing and preop workup process,” says Swanson. “They asked us about the update, we discussed it, and they agreed that it was fine.”

**‘Lunch and learn’**

The hospital hosts “lunch and learn” sessions for office staffs at least every 6 months.

“Working with the offices is an ongoing process,” says Swanson. There is turnover, and sometimes information isn’t passed along. “We feed them, give them a chance to ask questions, and provide any updates.”

To help ensure a good turnout, they mail invitations and phone offices they really want to attend, following up with e-mails and more phone calls.

**Metrics for management**

Piedmont’s managers monitor these metrics to keep the preop process on track:

- patient volume by hour and day of week to guide staffing
- patient wait times, tracked daily and monthly, with a benchmark of 15 minutes between the time the patient registers and is called by a nurse
- chart completion.

A screening tool is attached to each chart where nurses note any incomplete workups, missing paperwork, H&Ps and consents that did not arrive until the patient is in the holding area, and surgical delays and cancellations.

The tools are reviewed for trends, which are shared with the preadmission staff, OR committee, and surgeon and anesthesiology peer review committees. There is follow-up with physicians’ offices when necessary. The staff also watches for new issues. For example, when automatic internal defibrillators were introduced, the staff learned these needed to be turned off before surgery, and education was provided.

**What works?**

What works at Piedmont:

- a manual for office staff available by intranet
- close coordination with physicians’ offices, with regular “lunch and learns”
• a preadmissions unit staffed primarily by RNs, with a nurse practitioner as a central point for information
• monitoring trends in chart completion and following up with offices
• strong support from the medical staff and OR Committee.

Community hospital fine tunes process

Sewickley Valley Hospital
Sewickley, Pa
191 beds, 8 ORs in hospital, 4 ORs in ambulatory surgery center
11,520 cases per year

A well-thought-out preadmissions packet and automated preop phone calls have helped a community hospital fine-tune its presurgical process. The process has been streamlined using Six Sigma and other quality improvement techniques.

Sewickley Valley Hospital performs about 900 procedures a month in its 8-OR main suite and 4-OR ambulatory surgery center.

The surgical cancellation rate is less than 1%, notes Vanessa Santucci, RN, BSN, nurse manager for outpatient surgery, the presurgical offices, GI lab, and medical treatment unit.

The process was organized several years ago by Marilyn Rudolph, RN, BSN, MBA, now vice president for performance improvement for VHA Pennsylvania and a faculty member for the Institute for Healthcare Improvement’s program, Improving Flow through Acute Care Settings.

Here’s how the process works:

Preadmission packet

Most information is collected by surgeons’ offices using a user-friendly preadmission packet developed by the hospital. Few patients are seen at the hospital before the day of surgery.

When the decision for surgery is made, the office begins completing the packet, which includes the surgical consent, registration form, health history questionnaire, surgical admission form with orders, and patient instructions. For the H&P, depending on the patient, the surgeon either completes a short form or dictates it to the hospital’s transcription line.

The packets are self-explanatory, so the hospital doesn’t need to orient office staffs. When the packet is updated, office staffs are invited to an early-morning meeting with the presurgical office to learn about the changes and offer feedback.

Consensus on testing

The anesthesiologists, who are a contracted group, have consensus guidelines for preoperative testing. They also agree on which responses on the health history will trigger a call to the patient or patient’s physician prior to surgery. The anesthesia group employs 2 nurse practitioners (NPs) who review flagged charts before surgery.

Presurgical office

Preadmission packets are processed by the hospital’s presurgical office, which has separate areas for the hospital and ASC. Hospital packets are white, and the ASC’s are gray. The unit is staffed by 2 secretaries (1 full time and 1 part time) and 2 RNs (1 full time and 1 part time).

Preadmission packets are handled as follows:

• The secretaries begin work on the packets, sending registration forms to the admissions department and filing the rest of the packets by date of surgery. They add test results and other information as received. They have been instructed to flag charts meeting criteria for further review.
• The nurse practitioners review the flagged charts for anesthesia issues. They
order more tests or consults if needed, consulting with an anesthesiologist as necessary.

• Two days or more before surgery, an RN phones only those patients having surgery at the hospital. She is able to contact about 15 to 17 patients daily of the approximately 44 scheduled. These are typically elderly patients and those having complex procedures such as total joint replacements or vascular surgery.

• Two days or more before surgery, secretaries from the outpatient surgery unit pick up the packets and begin assembling the charts. A worksheet on the front tracks information as it is received. They follow up on missing information.

• On the day before surgery, outpatient surgery RNs review the charts as they have time and complete the preop checklist.

• The master surgical schedule notes any information still missing in red.

• Preanesthesia and nursing assessments are conducted on the day of surgery. Surgeon compliance with the packets is generally good, Santucci says. A few surgeons don’t dictate the H&P until the night before surgery. The staff is aware of who they are and works with the transcription department to make sure the H&P is on the chart before surgery.

Automated phone call

Automated phone calls communicate preop information to patients. Patients receive 3 calls, using software from TeleVox (www.televox.com). The scripted calls cover preop instructions, arrival time, and a follow-up after surgery telling the patient where to call with questions and concerns. The calls are attempted for a 4-hour period. During the call, patients can leave a detailed message with questions or concerns, and the staff contacts them.

The hospital receives a report on patients reached and not reached, and for those reached, whether they answered in person or by machine. The office staff contacts patients who were not reached to provide the information they need for surgery.

The system took some fine tuning, but Santucci says patients seem satisfied, and the hospital has been able to reduce FTEs. Though some physicians’ offices and patients have not been happy about use of an automated system, she says patient compliance is as good as with personal calls.

What works?

Sewickley Valley’s successful strategies:

• The preadmission packet helps ensure everything is in one place.

• Experienced secretaries in the presurgical office do a good job processing the packets.

• Automated phone calls give patients consistent information and save time.

• “Teamwork is what makes everything go so smoothly—everyone in all areas working together,” Santucci says.

What would she still like to achieve? Her goal is to have charts completed 48 hours before a case.

“We’d also like to streamline the process further so the packets aren’t being touched so many times,” she says.

Surgeon-specific teams

Kettering Medical Center
Dayton, Ohio
450 beds, 21 main ORs
21,000 cases per year

Faced with dissatisfied surgeons and a disconnected process, Kettering piloted a new approach that created better teamwork among staff and physicians.

Before, patients would come to the preanesthesia clinic, but there were no agreements or accountability for reviewing their orders.
There was not a review of the chart the day before surgery. So when a patient arrived on the day of surgery with a low potassium or EKG irregularities, they might have to delay or cancel the case,” says Judith Canfield, RN, MBA, MHA, who was interim director of surgical services during the project. Also, surgeons had a different team in their OR every day. Not all staff knew their routines, and cases didn’t always go smoothly.

The improvement process kicked off when the administrative director of perioperative services, Karen Gorby, RN, MBA, FACHE, worked with a focus group where surgeons voiced their concerns.

Two surgeons volunteered for a pilot project, a bariatric surgeon, Rita Anderson, MD, and a vascular surgeon, Jonathan Velasco, MD. Both surgeons had 90% on-time starts and high utilization of their block times. Managers thought improving the process for these surgeons would carry over to the rest of the department. The facilitators were Gorby, Canfield, and the team leader for general surgery services, Marianne Keaton, RN, BSN.

The pilot project

The facilitators met with all groups that affect the preop process: physicians’ office staffs, the preanesthesia clinic, preadmission unit, and OR as well as surgeons and anesthesiologists. (Anesthesia services are contracted with 1 group that serves several facilities.)

They reached formal agreements with the 2 surgeons, the clinics, preanesthesia clinic, and the surgical admissions unit about the improvements to be made (sidebar, p 12).

The 2 surgeons set the tone.

Steps taken to improve the process:

• Anesthesia providers couldn’t always cover the preanesthesia clinic because they cover multiple sites. But they agreed to complete their assessments 15 to 30 minutes before the start of the case.

• About 9 to 12 months into the pilot, the project team determined that the preanesthesia clinic was understaffed. The team planned to hire a nurse practitioner to conduct the preanesthesia assessments and activate surgeons’ orders. Indicators used to justify the hiring were the percentage of case cancellations on the day of surgery and H&P completion. (The NP was not hired during the pilot.)

• OR staff met with the 2 surgeons to fine tune their preference lists, instrument sets, and case carts so setups became routine, and cases ran more smoothly.

• Surgeon-specific OR teams were set up to work with these 2 surgeons consistently. These staff agreed to adjust their schedules to match these surgeons’ blocks. Surprisingly, this was easy. “The staff respects both surgeons and really enjoys working with them,” Keaton says.

• Reports were posted so the rest of the department could see results these 2 teams were achieving in turnover time and meeting the schedule.

Pilot outcomes

In the first 6 months, the 2 surgeon-specific teams:

• reduced turnover time from an average of 30 minutes to 17 to 18 minutes

• completed cases an average of 1 hour and 47 minutes earlier than before the project began.

“This gives them the chance to put in a case that day because they will have the extra time,” Keaton says, adding it hasn’t affected the nurses’ motivation.

Ripple of success

The teams’ success has rippled through the department.

“Things seem to flow so much easier,” Keaton says. Before, it was difficult to get the lab work and so forth on the chart before surgery. Now more surgeons are achieving that.”

One reason may be that more surgeons want their own teams and are vying to be the next selected. Two more surgeons are currently involved. One uses many of
the same team members Dr. Anderson does because they operate on different days. The OR has enough 10- and 12-hour employees to handle the challenge of providing more surgeons with teams. Other specialties have adopted some strategies from the pilot, but not all will adopt the team model because of variations in surgeon practice, infrequency of some procedures, and other factors.

**What works?**

What has made the biggest difference so far?

- **Motivated surgeons.** “We had 2 very motivated surgeons to start the project,” Keaton says.
- **Formal agreements.** The leaders negotiated formal agreements with all parties involved. “I met with each department and talked about how we could facilitate the process so the patient would have a better outcome,” says Canfield. “We kept the focus on the patients. Everyone said, ‘You’re right. We want this for the patients.’”
- **Data reporting.** Reports helped others to see what the 2 teams were achieving, which created peer pressure for others to want to improve.

**Agreements to improve**

Agreements to improve the preop process at Kettering Medical Center:

**Volunteer surgeons**

Two volunteer surgeons agreed to:

- review their preference lists for accuracy, signing off on the lists and not changing them frequently
- review their instrument sets, eliminating unnecessary instruments
- monitor their preoperative orders, follow through on findings, and ensure all patients were cleared for surgery
- ensure the history and physical and surgical consent are completed before the day of surgery
- be present 20 minutes before the start of the case to see the patient, mark the surgical site, and allow RNs time to complete their interviews
- remain in the surgical department during their block time.

**Preoperative units**

- The preanesthesia clinic agreed to review patients’ charts 48 hours ahead of time, calling surgeons about any unfinished items.
- The preadmission staff agreed to:
  — review the patient’s chart the evening before surgery and work with the surgical team to correct any missing elements
  — have the patient ready 30 minutes before the scheduled start of surgery.
- Anesthesia providers agreed to complete their assessment 15 to 30 minutes before the start of the case.

**Operating rooms**

- OR nurses and surgical technologists agreed to adjust their schedules to match the 2 surgeons’ block hours.
- OR RNs agreed to interview the patient 15 minutes before the start of the case.
Literature on the preoperative process

Preop clinic decreases cancellations, unnecessary testing
In the first year after a preoperative evaluation clinic was opened:
• day-of-surgery cancellations decreased by 88%
• tests ordered decreased by 55% with a cost reduction of 59% with no OR cancellations, delays, or adverse events reported because of this change.

Reducing preop risk factors could save costs
Preoperative risk factors and surgical complexity are effective predictors of hospital costs. Preoperative efforts to reduce risk could lead to significant cost savings.

Fewer cases cancelled with preop evaluation
In a study at the University of Chicago, 8.4% of cases evaluated in an anesthesiologist-directed preop clinic were cancelled compared with 13% of cases involving patients without a clinic visit.

Lost revenue from cancelled cases
Lost revenue from each cancelled case averages $1,430 to $1,700 per OR hour plus the variable cost of performing the case.

Nurse practitioners for preop assessment
A review of the emerging role of nurse practitioners in preoperative preparation.

Nurse practitioner-assisted assessment
A nurse practitioner-assisted preop assessment program maintained quality outcomes in the first year of use at Cincinnati Children’s Hospital. The program was introduced because of a shortage of anesthesiologists and rising surgical demand.