A preoperative process that doesn’t run smoothly can be costly, not only in revenue but in patient safety and satisfaction. A case that is cancelled or postponed because key data is missing can cost thousands of dollars. A missed allergy or medication can be a patient safety hazard. It’s also costly if physicians order too many tests or patients come in for a preoperative appointment when they don’t need to.

Automation is helping to make the preoperative process safer and easier. Examples of how automation can help now include:

- less redundancy in data entry
- greater integration of patient information
- electronic links to physicians’ offices for scheduling requests
- alerts and reminders

Here’s a look at what systems can do now and what’s coming.

**Single patient database**

As hospitals inch toward more robust information systems and electronic medical records, clinicians will have easier access to patient information throughout the continuum of care (see related article).

Greater integration can help with activities such as scheduling. Using McKesson’s Horizon Surgical Manager system, for example, a scheduler can select an existing patient from the hospital’s master patient index and schedule the surgery and any related appointments, notes Barbara Harris, RN, a McKesson engagement manager. If surgery must be rescheduled, a dialog box pops up to remind the scheduler that the preop appointment also must be rescheduled.

Similarly, once a patient’s name is entered in the Meditech system, software searches for the patient’s record and pulls forward information such as lab tests.

“The benefit of an integrated system is that you have past information at your fingertips from previous visits to the hospital or physicians’ office. It saves time and ensures patient safety because information on the patient’s allergies and medications is instantaneously accessible,” says Christine Castagna Murray of Meditech.

**Systemwide scheduling**

An integrated information system allows coordination of resources at the time surgery is scheduled. As an example, a module of ORSOS One-Call from Per-Se Technologies enables the physician’s office scheduler to coordinate multiple appointments without having to pick up the phone, says product director Mickey Larkins. Unibased System Architecture’s (USA) OR software is linked to its scheduling system, enabling nurses to schedule surgery as well as tests and other needed services like rehabilitation, says USA’s marketing director, Wanda French, RN, BSN, CNOR.

**Across the perioperative continuum**

There’s more demand for data to flow throughout the perioperative continuum, from scheduling through postanesthesia care, including both nursing and anesthesia. SIS and Picis both claim strengths in this area, having been developed specifically for the OR, anesthesia, and related functions and areas. Other companies, such as GE Healthcare, also have anesthesia modules, and Per-Se says it will introduce an integrated option early this year.

The advantage of integration is that once patients’ information is entered in the system, it is available throughout the surgical episode.

“In the OR, all of our modules are shared. The circulating nurse and anesthesia
provider can click on an icon to direct them into the perioperative record,” says Patricia Heid, RN, MSN, clinical consultant for Picis.

In the SIS system, preoperative information, such as the patient’s nursing and medication history, is available both to nurses and anesthesia providers down the line.

SIS has an exclusive partnership with Eclipsys, an enterprisewide provider of clinical information systems, which offers “deep clinical integration,” says Steve Pennock, vice president for clinical solutions. “With a single sign-on, you can make the two systems behave as one,” he says. For example, OR and anesthesia providers could bring up lab results in the OR. Postanesthesia nurses would have access to medications given in the OR, and floor nurses could see what pain medications the patient received in the recovery area. So far, about 10 customers use the integrated system.

Paging Dr Smith . . .

Automation allows users to build in a “safety net” of reminders. For example, when a nurse is charting in the system preoperatively, messages can pop up reminding her to check the patient’s identification and verify the surgical site.

Rules can be written so that if a patient is on an anticoagulant, the system alerts clinicians to check when the anticoagulant was stopped or if the patient had a PT and PTT (prothrombin time and partial thromboplastin time).

Missing a history and physical? Need an update note?

GE Healthcare’s software can post reminders to clinicians in multiple ways, notes Donna Maddox, RN, BSN, manager of upstream marketing for GE Centricity Perioperative. As preoperative nurses assemble charts, system-generated worklists can help them keep track of what information is missing. On the day of surgery, when the situation is more urgent, a “white board” tracking system can flash alerts or even page clinicians who need to respond. Other companies also offer similar capability.

Who needs a preop visit?

Keeping track of who needs preoperative testing and appointments is a challenge.

Many of the software packages enable users to write rules so the system can generate reminders. For example, if anesthesia guidelines say patients over 50 need an electrocardiogram, a rule can be written to generate a message when a patient over 50 is scheduled.

Linking up with physician offices

There’s increasing interest by perioperative customers in being able to communicate online with surgeons’ offices, software vendors say. They want physicians to be able to send electronic requests to the surgical scheduler, reducing the number of phone calls. Some want physicians to be able to view their block time online. But not many ORs have physicians actually book cases into their blocks online.

What insurance does the patient have?

Financial counselors and schedulers spend hours calling 800 numbers, verifying patients’ insurance. ORSOS One-Call has a web-based application that allows a facility to check the patient’s insurance and medical necessity online—avoiding hours on hold.

“As you are scheduling cases, the scheduler is automatically checking the insurance information,” says Larkin of Per-Se. The system sends an electronic transaction to the payer to confirm that the patient is covered.

What’s coming?

If people can book plane reservations online and print a boarding pass before they go to the airport, shouldn’t they be able to prepare for surgery online? They could preregister and perhaps submit their health care history from a computer at home or in the doctor’s office.

So far, the major software vendors say there hasn’t been much demand for online patient registration and histories, although they are seeing these more in requests for
proposals. They expect demand to increase and say the security technology is available to make such transactions safe.

There are some fledging efforts in this area (see related article). ✤

—Pat Patterson

Benefits of automating the preop process

• More accurate scheduling
• More legible and consistent documentation
• Resource-conflict checking
• Access to real-time patient information in all phases of surgery
• Fewer phone calls for scheduling
• Better workflow management
• Automatic alerts and reminders for clinicians.