A 100% telephone presurgery patient evaluation

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Patient assessment before surgery isn’t a new concept, but the elimination of reimbursement for patient hospitalization the night before surgery created the need for a new model for preoperative assessment. This article describes how one facility transitioned from live presurgical assessments to 100% telephone assessments.

A CINAHL and Ovid review of literature revealed more than 1,500 articles related to presurgery evaluation (PSE). Most of those articles didn’t specifically address the telephone assessment process. The articles of interest were divided into three categories: 14 had relevant content but were more than 7 years old, 10 referenced generalized preoperative screening and testing, and 6 specifically addressed presurgery telephone assessment. Three outdated articles will be referenced for historical data; all additional references are current (published from 2007-2012).

A look back

More than a century ago, only 10% of the U.S. population received hospital care, so nurses began preparing patients, both physically and mentally, for surgery in their own homes.1 Hospital admissions became more common after World War II, due in part to lengthy hospitalizations for veterans recovering from reconstructive surgery.2

As recently as 1980, surgical patients were typically admitted to the hospital 1 to 2 days before surgery for routine lab work, ECG, chest X-ray, anesthesia consultation, and medical history. The OR nurse conducted a preoperative visit to share information about the anesthesia, surgery, and postoperative period. The emergence of outpatient surgery and minimally invasive surgery has shortened the hospital stay. When insurance carriers began to implement limited or no reimbursement for overnight hospitalization the day before surgery, the need to streamline the preoperative evaluation practice began.3

In December 1986, our hospital instituted a new preoperative assessment model that let patients complete routine preadmission testing (PAT) in 3 to 4 hours. By 1996, the rise in outpatient surgery and creation of freestanding surgery centers prompted us to perform 10% of our nursing preadmission interviews via telephone (the remaining 90% were done live). A comparative analysis of preoperative telephone interviews versus live patient visits endorsed the nursing telephone assessment as being a valuable preoperative tool.4

PAT was provided in two locations—five rooms plus a chart room located on the main hospital campus, and two rooms at the outpatient surgery center. Both campuses provided licensed perioperative nurses to conduct initial medical-surgical and medication history. In addition, each location had onsite lab and ECG services, and access to anesthesia providers who performed daily chart checks, consultations, and patient exams. The main hospital initially used a full-time anesthesiologist for live interviews, and then moved to a full-time NP by 2008. The outpatient facility used an anesthesiologist exclusively. Selection for telephone interview at both campuses was determined by the surgeon. Candidates for telephone interviews had to be under age 50, undergoing elective minor surgery, healthy (American Society of Anesthesiologists (ASA) physical status classification I or II, and available by telephone during clinic hours.5

Going electronic

Electronic technology enabled us to increase the ratio of live to telephone assessments to 50:50 by June 2008. In January 2008, a workgroup comprising two RNs, an anesthesiologist, and representatives from patient scheduling, informatics, and information technology (IT), met weekly to create the assessment tool, menus, dictionary, policy, procedures, and staff training for medication reconciliation and online
documentation. The documentation streamlined our interview process and shortened live patient visits. By the fall of 2009, we had developed an original flowchart (see Evaluating your patient) and preanesthesia order set that recommended common tests (such as a complete blood cell count and ECG) based on the patient’s age, comorbid conditions, and type of surgery. As a result of our progressive thinking in the area of patient assessment, two members of the PAT staff were invited to sit with the Magnet® surveyors during the hospital site visit. Achievement of Magnet status encouraged us to look at the bigger picture. How could we promote best practices and improve customer service? Current literature supported process improvement at several preoperative clinics through standardization of practices.6

A six-member pretest committee was formed. The nursing vice president, PAT medical director, director of perioperative services, nurse manager, clinical coordinator, and perioperative consultant met weekly for 9 months to assess the entire service and process. The objective was to restructure the department, using evidence-based practice to enhance clinical safety, improve efficiency, decrease day-of-surgery cancellations, and promote collaboration with surgeons and their staffs.7 Three pilot offices helped us evaluate and review current practices and trial changes for improvement. The goals to redesign patient flow, paperwork, and redefined core staffing and roles and responsibilities were accomplished.

In December 2010, the three pretest offices were consolidated into one off-site location, and the pretest department was officially renamed PSE. Based on best practices and feedback from our patients, the new location offered one-stop preadmission assessment and testing at a convenient location.8,9

As of January 2011, meetings were set up with all physician offices to distribute brochures and to discuss PSE guidelines, available onsite services, and hours of operation. Preoperative telephone assessments were scheduled in the five interview rooms up to 30 days but not less than 24 hours before surgery. One express room was designated for surgery add-ons of 7 days or less. By February 2011, all assessments were being done via telephone using the flowchart and preanesthesia screening order set. The next month, the PSE joined forces with the patient access department, which now provides on-site support for preregistration, appointment scheduling, and managing chart preparation.

In October 2011, an off-site orthopedic, spine and sports medicine center opened, and orthopedic-specific PSE and lab services were implemented. The anticipated increase in surgery and pain management services required attention to risk factors specific to outpatient facilities.10

The benefits
Our goal was to provide comprehensive presurgery screening in one location.11 The PSE department was extended by 3 hours (7 a.m. to 8:30 p.m.) to accommodate patients’ varied schedules. The services were convenient, easily accessible, and cost-effective (RN-driven, anesthesia-directed). The 3- to 4-hour office visit is now a 30- to 45-minute telephone interview. With the help of nursing informatics, a revised online patient questionnaire can be archived, referenced, and updated during the telephone evaluation.

Our primary objective was to assure patient readiness via improved patient education and adherence through nurse-patient teach-back methodology (also called a return demonstration).12

Our current performance improvement plan includes monthly audits reflecting day-of-surgery cancellation of patients who don’t adhere to N.P.O. status. Before implementing the telephone assessment, the day of surgery cancellation rate for 6 months was 4.06% (59 out of 1,451 surgeries); it’s now 1.62% (26 out of 1,603 surgeries). Other factors in the reduction of the cancellation rate include an anesthesia protocol to ensure appropriate testing, ease of interpreter services (live and via telephone) to support appropriate documentation, and use of a problem list communication system to alert anesthesia and perioperative staff of issues to be presented at the daily huddle.

Our challenges
Patient comorbidities led to daily variations in workload, testing done outside the hospital increased turn-around time on chart completion, and past medical history was based on the accuracy of patient recall. With the help of our IT department, we acquired access to seven shared electronic medical record databases to collect preoperative materials such as labs and ECG results, patient consent forms, and history and physical assessment data from off-site medical offices. This has reduced the need for additional tests or appointments for medical or cardiac clearance, alleviating unnecessary patient anxiety.
All patients have an initial phone interview with a nurse. Depending on the information obtained, patients may be okayed for surgery or need additional screening, as follows:

- Smokers with no pulmonary symptoms
- Hypertension is controlled; no other cardiac manifestations
- Patient has diabetes
- Patient has hyper- or hypothyroidism but is asymptomatic and having nonthyroid surgery
- Patient has asthma but doesn’t require treatment
- Surgeon or patient requesting consult (must have identified what specific issue for seeing anesthesiologist)
- Patients requiring other physician’s consults before surgery
- Patients with family history of malignant hyperthermia
- Pregnant patients having nonobstetrical surgery
- Patients with obstructive sleep apnea
- Patients with a history of coronary artery disease, including myocardial infarction, angina, coronary artery bypass graft surgery, or a stent
- Patients with significant valvular abnormalities or valvular repairs
- Patients with a history of heart failure
- Patients with cardiac dysrhythmias
- Patients with recent chest pain or angina
- Patients with clotting disorders, on anticoagulation therapy or antiplatelet therapy other than aspirin
- Patients with renal or hepatic failure, including cirrhosis
- Patients with a history of seizures or stroke

OR any of the following surgeries:
- Thoracoscopy
- Radical neck dissection
- Spinal fusion instrumentation
- Gastrectomy
- Prostatectomy
- Nephrectomy
- Adrenalectomy
- Total joint replacement
- Inpatient pediatric surgery

- Known difficult airway
- Severe anesthetic complications
- Morbid obesity (defined as a BMI of 40 or more)
- History of pheochromocytoma
- Uncontrolled hypertension (systolic BP over 190, diastolic BP over 110)
- Uncontrolled diabetes (blood glucose level of 250 mg/dL or more)
- Uncontrolled chronic obstructive pulmonary disease, or asthma that requires daily treatment

OR any of the following surgeries:
- Major vascular procedures such as abdominal aortic aneurysm repair, aortofemoral bypass, peripheral vascular bypass, carotid endarterectomy
- Craniotomy
- Whipple
- Liver resection
- Gastric bypass
- Thoracotomy, video-assisted thoracic surgery, esophagectomy
- Cystectomy

Source: Used with permission of South Shore Hospital.
Accuracy of dosage and complete medication recall is patient-specific. We’re participating in a pharmacy database trial to help capture more complete medication documentation for each patient.

We weren’t always able to ascertain a patient’s level of cognition or distraction (which could result in nonadherence with N.P.O. or medication orders) or confusion (for example, about the location of surgery or arrival time). For this reason we implemented teach-back instructions.

**Recommendations for improvement**

The unit-based shared governance committee is designing a single, standardized patient education tool in web-based, e-mail, and brochure format, and the presurgery order set has been revised to include an orthopedic protocol. The nurse educator is creating a tool to evaluate effectiveness of the program through development of a patient satisfaction survey to be given at the 1-week postoperative visit.

The clinical coordinator continues to act as a liaison to the physician office for initiation of preoperative patient education before the PSE. The nurse educator also provides bimonthly and just-in-time educational programs for the staff to support current best practices for cardiac, diabetes, and medical patient management.

**Ringing up**

Of the 14 hospitals within a 25-mile radius of our facility, we’re the only one with 100% telephone PSEs. The other hospitals report a 20% to 40% telephone surgical screening process. Our call volume averages 950 to 1,200 per month, with half of those patients requiring preoperative lab work, and about 20% referred to the NP for additional telephone assessment or a live appointment. The patient sees the anesthesiologist in the holding area the day of surgery to sign the consent.

Conducting all PSEs via telephone is still a relatively new practice. However, we hope it will improve patient satisfaction, increase positive postoperative outcomes, and decrease readmission through structured preoperative patient and family education.

**REFERENCES**


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