

An electronic path for streamlining scheduling

An electronic form surgeons' offices use to place scheduling orders has streamlined the preoperative process and sharply reduced case cancellations for a Chicago-area hospital.

Cancellations are down from about 12% to less than 1% of cases since the scheduling form was introduced in early 2012. The offices took to the electronic form quickly, and more than 95% are using it.

"Now we get all of the information we need. There are hard stops, and the form can't be submitted for scheduling unless it has everything filled in," says Katrina Spears, BSM, MAOL, manager for business and informatics, surgical services, at Advocate Good Samaritan Hospital in Downers Grove, Illinois.

The Level 1 trauma center with 15 ORs began looking for solutions to scheduling after a Lean project found waste in the process. In one example, faxed scheduling forms were being rejected on average of 960 times a month. Forms had missing information, were illegible, or had an antibiotic selection that needed to be clarified.

Straightening out the orders required phone calls and additional work for hospital and office staffs, notes Lina Munoz, BSN, RN, CPAN, manager of the Pre-surgical Testing Department.

Electronic scheduling process

In the new system, offices enter the booking on the online form by CPT or ICD-9 code, which Spears says provides additional benefits.

The software automatically checks for medical necessity for Medicare patients.

"Before, we had to check for medical necessity," she says. "This way, the offices can check when they schedule. It has re-

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duced Medicare denials.”

Having the code also aids pre-certification of patients' insurance coverage.

Other improvements:

- For CPT codes that entail laterality, a drop-down menu was added so offices can check the procedure side/site. On the hospital side, the CPT codes are mapped to procedure names.
- CPT codes are tied to procedures included in the Surgical Care Improvement Project (SCIP). An alert is triggered when one of those cases is scheduled so the correct antibiotic can be selected.
- When applicable, a drop-down menu requires the office to enter the type of sequential compression device (SCD) the surgeon prefers for venous thromboembolism prophylaxis.

Edits tracked

Once the electronic form is received, the surgical scheduler enters the information in the OR scheduling system.

If offices modify a scheduled procedure later, the edits are entered online and automatically color coded so OR schedulers can see the changes made. All iterations are stored, which has eliminated confusion previously caused by edits to paper forms, Spears notes.

Patients can use the same software used for the electronic sched-

uling form to preregister online through a secure web portal. They also have the option to submit their health histories. The histories are available to the surgeons' offices as well as the hospital.

The hospital plans to use the software to trigger alerts as part of a new program for spinal surgery patients who will be screened for methicillin-resistant and/or methicillin-sensitive *Staphylococcus aureus*.

Electronic form is MD order

The electronic scheduling form serves as a physician order, which enables the hospital to start the presurgical process, including scheduling any testing, as soon as the order is received. The form is printed and placed in the patient's record under orders.

The scheduling form has a box the office can check to acknowledge that the surgeon is aware of the anesthesia protocol and authorizes the hospital to move ahead. Testing is selected based on the patient's history according to anesthesia department guidelines.

The nurse does not need to sign the order and have the physician counter-sign later, Munoz says. "It's electronic and automated." That is also true for preop medications that are part of standing order sets.

The electronic form also resolves a snag that occurred when patients were allergic to penicillin (PCN). Before, it took back-and-forth communication with the offices to have the surgeon approve an alternative. Now, if the patient is allergic to penicillin, the surgeon can click on "Alternative Antibiotic Prophylaxis" and select one of these choices:

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- Cefazolin 1 or 2 gm (physician aware of PCN allergy)
- Cefoxitin 1 or 2 gm (physician aware of PCN allergy).

Offices can attach a link to the surgeon's medication order for the procedure. For orthopedic cases, the office can attach an equipment list.

Launching electronic scheduling

Spears, Munoz, and the vendor met with the offices before the electronic form was developed and asked for feedback.

These face-to-face meetings and regular communication are why Spears thinks electronic scheduling was adopted so readily.

Use of the electronic form "is not mandatory, but once the offices are trained, they never go back," Spears says. The form saves offices time because forms no longer have to be returned for missing or illegible information.

The electronic form also saves time for the hospital staff. She estimates the equivalent of 1 FTE has been saved because nurses no longer have to track rejected forms or check for medical necessity.

As an added efficiency, when health care reform is implemented in 2014, the software will help the hospital identify self-pay patients who will need to be informed about the availability of insurance coverage.

The web-based scheduling form uses software by Health-Nautica, Oakbrook Terrace, Illinois, which provides computerized provider order entry systems. A software developer from the company helped the hospital modify the form to fit its scheduling needs. ❖

—Pat Patterson

Readmissions less likely with good nursing environment

Medicare patients treated in hospitals with a good work environment for nurses had up to 10% lower odds of readmission than did those treated in hospitals with a poor work environment, according to data from 412 hospitals in California, Pennsylvania, and New Jersey.

"Improving nurses' work environment and reducing nurses' workload are organizationwide reforms that could result in fewer readmissions for Medicare beneficiaries with common medical conditions," said lead author Matthew D. McHugh, PhD, JD, MPH, CRNP, of the University of Pennsylvania School of Nursing.

Data from more than 200,000 nurses showed that in hospitals with good work environments, the likeli-

hood of readmission within 30 days among Medicare patients was lower among patients with heart failure, heart attack, and pneumonia.

Preventable readmissions cost hospitals more than \$15 billion annually, and hospitals are being penalized for excessive readmissions.

The researchers suggested hiring more staff nurses, noting that the costs could be offset by increased productivity, less turnover and need for retraining, better patient outcomes, and fewer readmissions and postdischarge services. ❖

Reference

McHugh M, Ma C. Hospital nursing and 30-day readmissions among Medicare patients with heart failure, acute myocardial infarction, and pneumonia. *Med Care.* 2013;51:52-59.

More surgeons are joining ranks of hospital-employed physicians

More than half of practicing US physicians are either employed by hospitals or belong to a large group practice that has a contract with a hospital. Surgeons increasingly are joining the mix.

The number of surgeons employed full time by hospitals increased 32% between 2006 and 2011, according to Anthony G. Charles, MD, MPH, and colleagues at the University of North Carolina in Chapel Hill.

Hospitals employing physicians stand to gain market share by increasing admissions, diagnostic testing, and outpatient services. Direct employment means hospitals can:

- beef up the number of on-call physicians, especially in emergency departments and rural clinics
- get the specialists they need for a

state regulation, such as trauma center designation

- guarantee use of their facility by the physicians they employ.

The trend toward hospital employment is most apparent among younger general surgeons and female surgeons, the researchers found.

Between 2000 and 2009, the number of general surgeons graduating from medical school who were employed rose from 64.5% to 86%. Among female surgeons, 61% were employed in 2001 vs 75.5% by 2009.

Physicians and hospitals alike need to align more closely to meet financial and professional expectations, the researchers wrote. ❖

Reference

Charles A G, Ortiz-Pujols S, Ricketts T, et al. The employed surgeon. *Arch Surg.* 2012; doi:10.1001/jamasurg.2013.1013.