One more SCIP measure is added for reporting for fiscal year 2010. Two more are proposed for fiscal 2011 as part of the Surgical Care Improvement Project (SCIP).

Beginning Oct 1, 2009, the start of FY 2010, one more measure will affect hospitals’ Medicare payment update: Surgical patients on a beta-blocker prior to arrival who received a beta-blocker during the perioperative period (SCIP Cardiovascular-2). Hospitals started submitting data on this measure at the beginning of 2009.

The 2 measures proposed for reporting to receive the full payment update in FY 2011 are:

- removal of postoperative urinary catheter
- postoperative normothermia for all surgery.

The measures were proposed in the draft 2011 hospital inpatient prospective payment rule released May 1, 2009, by the Centers for Medicare and Medicaid Services.

A possible future measure is the intraoperative redosing of antibiotics.

**Perioperative beta-blockers**

The beta-blocker measure has been the subject of some controversy. The measure is based on a Class I recommendation from the American College of Cardiology (ACC)/American Heart Association (AHA) 2007 guidelines. The guidelines recommend continuing beta-blockers in patients having surgery who receive those beta-blockers for angina, arrhythmia, hypertension, or any other Class I indication specified in the guideline.

The benefits versus harm of perioperative beta-blockers have been debated, and further studies have been published. The ACC and AHA are updating their guideline, and the revision may be published this year, notes Dale Bratzler, DO, MPH, SCIP’s medical director. “But currently, this is a Class I recommendation: If the patient is on a beta-blocker prior to admission, simply don’t stop it.”

Another discussion focuses on the POISE study published in 2008, which randomized 8,351 patients with atherosclerotic disease having noncardiac surgery to receive a perioperative beta-blocker or placebo. The international multicenter trial published in *Lancet* found fewer patients in the beta-blocker group had a myocardial infarction than those in the placebo group, but there were more deaths and strokes among patients receiving beta-blockers. The authors called for a larger randomized trial.

Dr Bratzler said the POISE study does not affect the SCIP measure because the POISE results do not apply to patients already taking beta-blockers at home before surgery; those patients were excluded from the study. Moreover,
he says, another study by Hoeks et al found that when beta-blockers were stopped abruptly, surgical mortality increased.

**Urinary catheter use**

*SCIP Infection 9: Urinary catheter removed on postoperative day 1 or postoperative day 2, with the day of surgery being day zero.*

This proposed measure is based on a study reported in 2008 by Heidi L. Wald and colleagues involving 35,900 Medicare patients having major surgery. Of these, 86% had indwelling urinary catheters, and 50% of those still had their catheters 2 days postoperatively. These patients were twice as likely to develop a urinary tract infection (UTI) as patients who had catheters for 2 days or less. Patients who developed a UTI were more likely to die within 30 days of surgery.

Another study by Sanjay Saint et al found 56% of hospitals did not have a system for monitoring which patients had urinary catheters, and 74% did not monitor catheter duration.

Excluded from the SCIP measure would be patients who had urological, gynecological, or perineal operations and patients whose physician documents a reason not to remove the catheter. On postop day 1 or 2, there must be evidence of an attempt to remove the catheter. The measure has been endorsed by the National Quality Forum (NQF).

**Surgical normothermia**

*SCIP Infection 10: Proportion of patients undergoing any operation (any age) under anesthesia for 60 minutes or more who have active warming devices used or have at least one body temperature of 96.8° F/36 C° recorded within 30 minutes immediately prior to or the 15 minutes immediately after anesthesia end time. Excludes patients with intentional hypothermia.*

This proposed new measure would replace SCIP Infection 7, which applies to normothermia for colorectal surgery patients.

“There is strong support to keep patients warm in the operating room,” Dr Bratzler says. Patients who are hypothermic are at risk for complications such as acute myocardial infarction, arrhythmias, coagulopathy, and surgical site infections.

The measure is aligned with a physician performance measure from the American Society of Anesthesiologists. The measure has been endorsed by NQF.

**Redosing of antibiotics**

A possible future SCIP measure would call for an additional dose of the prophylactic antibiotic within 4 hours of the preoperative dose for patients who receive a short half-life antibiotic (cefazolin, cefuroxime, cefoxitin, or ampicillin-sulbactam) and are still in surgery more than 4 hours after the start time of the preoperative antibiotic dose. This measure has not yet been endorsed by NQF and has not yet been proposed for reporting to CMS.

The basis for the proposal is evidence that when a single dose of a short half-life antibiotic is given, levels of the drug fall off rapidly.

“If you give a single preoperative dose of a drug like cefazolin, and you have a long operation, once you get to 3 or 4 hours, there is no antibiotic left in the tissue—it’s all in the Foley catheter,” Dr Bratzler says. This has been demonstrated in tissue biopsies by DiPiro and other researchers.
A related issue that is not part of the SCIP measures at present is weight-based dosing of antibiotics. “Underdosing is one of the most common errors in surgical antimicrobial prophylaxis,” Dr Bratzler says.

He noted that some institutions use higher doses of antibiotics for patients who are morbidly obese.

“Drugs such as cefazolin are very safe, reactions are uncommon, and underdosing for large patients is probably common,” he says.

For a full description of SCIP measures, reporting specifications, and supporting literature, see the Specifications Manual for National Hospital Inpatient Quality Measures at www.qualitynet.org

References


