Quality reporting: What comes after SCIP?

How well hospitals perform on SCIP measures will affect part of their Medicare payment starting in late 2012. Yet a new study is the fourth to find that the SCIP infection measures aren’t correlated with surgical site infection (SSI) rates. In the new study from 112 Veterans Affairs (VA) hospitals, compliance with 6 SCIP measures went up, but SSI rates didn’t change.

The measures are part of the Surgical Care Improvement Project (SCIP) introduced in 2006 with the goal of reducing surgical complications by 25% by 2010. Hospitals must now report on SCIP measures to receive their full payment update from Medicare. The public can view how hospitals are performing on the government’s Hospital Compare website.

Under Medicare’s new value-based purchasing program, SCIP performance will affect a part of reimbursement starting October 1, 2012. Value-based purchasing is Medicare’s first attempt to pay hospitals based partly on quality, not just on services they provide.

New study findings
The new study by Mary T. Hawn, MD, published in the *Annals of Surgery*, analyzed 61,099 surgical procedures at the VA hospitals. She and her group found that though adherence with 6 SCIP measures improved significantly over the study period, SSI rates stayed about the same. Complying with the SCIP measures was not associated with lower SSI rates either at the hospital level or at the patient level when risk factors were adjusted.

SCIP measures studied were:
- timely antibiotic administration
- timely discontinuation of antibiotic after surgery
- appropriate antibiotic selection
- normothermia
- appropriate hair removal.

The first 3 measures are part of value-based purchasing. (Reporting on hair removal is being suspended as of January 1, 2012.)

Strengths of study
Dr Hawn says the study design has several strengths. First, independent groups of reviewers were used to check SCIP compliance and to identify SSIs. SSIs were tracked for 30 days after surgery, not just during the patient’s initial hospital stay. Also, the study examined patient level data, meaning SCIP adherence and outcomes were tracked for the same patients. Another strength is that the patient data was risk-adjusted, enabling the researchers to look for the independent effect of the SCIP measures. (The other studies are described in the sidebar.)

SCIP in question
“There has been no study on a multi-hospital or national level that has shown any
meaningful value of the SCIP implementation in having an effect on improving outcomes for patients for infections,” Dr Hawn told OR Manager.

For that reason, she doesn’t think it’s “clinically meaningful” to use the SCIP measures to help guide patients to choose certain hospitals, as Hospital Compare is intended to do, even though the measures are based on good practices.

“I doubt that Medicare is going to get any value return by using this for value-based purchasing,” she said.

**Why not a difference?**

Why isn’t compliance with the SCIP measures, which are based on scientific evidence, showing a difference in outcomes? One reason may be that the measures aren’t necessarily based on the evidence, she said.

For example, though the evidence shows that giving a prophylactic antibiotic lowers the rate of SSIs, giving the antibiotic within a specific 60-minute time frame has not been tested, she says. She also questions the specifications and evidence for several of the other measures.

“I think the problem is that there must be 50 ways to get an SSI, with all respect to Paul Simon,” comments Donald Fry, MD, a surgeon who was a member of the group that developed the first 3 antibiotic-related SCIP measures in 2002.

A host of variables influence whether a patient develops an infection, and focusing on only a few is not likely to show a difference, he says. Thus, a measure such as giving a preoperative antibiotic may make a difference in a randomized trial, where variables are controlled, but not make a difference when applied to a heterogeneous population.

“I don’t believe the data [from SCIP] should be used to condemn performance,” Dr Fry comments. Rather, he says, the SCIP process measures are “one step toward identifying scientifically valid measures that do make a difference.”

**What comes next?**

What should come next in measuring surgical quality?

The first step was to identify evidence-based process measures, like prophylactic antibiotic administration.

“The SCIP people have done a nice job with that. Probably the next step is to add something more, either more process measures or outcome measures,” says Clifford Ko, MD, FACS, director of the Division of Research and Optimal Patient Care for the American College of Surgeons (ACS).

Medicare is starting to add outcome measures, including SSI rates, to quality reporting. Hospitals will need to report SSI rates on 2 procedures, colon surgery and abdominal hysterectomy, starting January 1, 2012, to receive their full Medicare payment update in 2014.

SSI data will be reported through the Centers for Disease Control and Prevention’s web-based National Healthcare Safety Network (NHSN). The SSI reporting requirement is in the final 2012 inpatient prospective payment rule issued August 1, 2011.

Several postoperative outcome measures are already being reported: postoperative respiratory failure, pulmonary embolism or deep vein thrombosis, wound dehiscence, and death among surgical inpatients with serious treatable complications.

**New outcome measures**

Dr Ko says ACS has been working with the government for the past 3 or 4 years to develop risk-adjusted outcome measures for surgery. Two new measures were recently endorsed by the National Quality Forum (NQF):
• colorectal surgery morbidity and mortality (NQF #0706)
• elderly surgery outcomes measure for patients age 65 or older (NQF #0697).

They join a third NQF-endorsed surgical outcome measure: lower-extremity bypass mortality and complications (NQF #0534).

Outcomes reporting still has an obstacle to overcome. Clinical data—the most accurate and robust—is more burdensome to collect than data that can be mined from insurance claims. Clinical data is abstracted manually from patient charts.

That’s why implementing electronic health records (EHRs) is so important, Dr Ko comments. Outcome data can be generated more easily from EHRs. “That’s where we will get great data, and it can be done efficiently.”

—Pat Patterson

Reference

Link with outcomes lacking in SCIP studies

Studies have not shown a link between SCIP compliance and patient outcomes.

A 2010 report based on claims data for 387 hospitals found that adhering to individual SCIP measures was not associated with a significantly lower infection rate. There was improvement when the measures were analyzed as a composite score. Experts say claims data is not the best way to study outcomes.


A study assessed to what extent 4 SCIP measures were associated with risk-adjusted outcomes for 200 hospitals participating in the American College of Surgeons National Surgical Quality Improvement Program (NSQIP). Adherence to SCIP measures was not significantly associated with better outcomes, except for SCIP-2 (antibiotic selection). NSQIP uses clinical data instead of claims data.


A retrospective analysis of Medicare claims data looked at whether hospital compliance rates for certain surgical process measures reported on the Hospital Compare website were related to patients’ risk-adjusted mortality rate, venous thromboembolism, and surgical site infection. The researchers found the outcomes did not vary for hospitals with high compliance or medium compliance.