

## Economics of surgery

# In reducing complications, plan on less revenue

One would think that reducing surgical complications would lower a hospital's costs in addition to being the right thing to do. But the hospital's bottom line can be seriously affected. The loss can be substantial unless new surgical volume is added to make up for the loss, a new analysis finds.

The reasons: As complications are reduced, fewer beds are occupied with less reimbursement coming in. Hospitals also believe the savings are greater than they actually are.

"Many believe the cost savings associated with eliminating the average surgical complication would be \$15,000 to \$20,000," based on the literature, says Dan Krupka, the lead author.

"Unfortunately, they are mistaken."

Though it's true that hospitals avoid the excess cost a complication entails, that's just for items like medications and supplies, which represent only 10% to 15% of the cost.

"The nurses, beds, and administration don't go away," he says.

The loss could be large. A hospital that drops its complication rate by 1% would lose \$1.2 million per 10,000 cases, the authors estimate.

But if the caseload is growing, the hospital could increase its revenue, perhaps appreciably. That is because as beds are freed up, they can be filled by patients with shorter lengths of stay, bringing in more revenue per patient.

The authors say their analysis leads them to the "distressing conclusion" that a program to reduce complications, while in the interests of patients and payers, will result in a negative cash flow for hospitals whose inpatient surgical caseload isn't growing.

Reducing complications will yield a positive cash flow only if 2 conditions are met:

- Inpatient surgical volume is growing.
- The ratio of the length of stay for patients with complications to that for patients without complications exceeds the corresponding ratio of reimbursements.

### Plan how to make up volume

The authors' advice: When embarking on a project to reduce complications, involve the CFO and senior leaders in analyzing the potential impact and in planning how to make up the volume.

Hospitals should also establish gainsharing arrangements with payers in areas where their volume is not growing so they share in the savings from reducing complications.

The article includes an appendix on calculating the number of additional surgical patients who could be accommodated as complications are reduced. ❖

### Reference

Krupka D C, Sandberg W S, Weeks W B. Impact on hospitals of reducing surgical complications suggests many will need shared savings programs with payers. Health Aff. Published online before print, October 17, 2012.

**Have a question  
on the OR  
revenue cycle?**

*Keith Siddel will respond to questions in the column. Send your questions to [editor@ormanager.com](mailto:editor@ormanager.com)*

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