

VIEWPOINT

Innovations in Surgical Communication 4— Present the Downsides of Surgery, Not Just Risks

Sarah I. Zaza, MD

Department of Surgery,
University of
Wisconsin, Madison.

Robert M. Arnold, MD

Department of
Medicine, University of
Pittsburgh, Pittsburgh,
Pennsylvania.

**Margaret L. Schwarze,
MD, MPP**

Department of Surgery,
University of
Wisconsin, Madison.



Viewpoint

pages 995, 997,
and 993

In hundreds of audio-recorded consultations,¹⁻³ we found surgeon disclosure of risk to be fairly comprehensive. For example, “So there are major risks about surgery... a laundry list; not all of them are going to happen but I have to tell you, okay? So bleeding... that comes with any type of surgery, uh, there's a risk of me hurting the structures around where I'm dissecting. Where I make, where I make the connection, there's a risk of that connection not healing a hundred percent... uh, heart attacks, pneumonia, blood clots in the lungs and legs. The other important thing to know is infection, right?” While this is an ostensibly reasonable list of complications, this patient and many others told us they were blindsided by the experience of surgery, even when none of the itemized complications occurred.

Surgeons are dedicated to disclosure of complications. Legal and ethical standards require transparency about possible complications, and avoiding postoperative complications is a major focus of our day-to-day job. We judge our performance by measuring complications at 30 days and report these events at morbidity and mortality conference. We have spent decades investigating risk factors, predicting operative end points, and working to reduce serious complications through personalized risk calculators. Accordingly, these notions permeate our consultations. But for patients, the downsides of surgery extend beyond a list of unwanted outcomes that surgeons conceptualize as complications.

To truly deliberate about whether surgery is right for them, surgeons need to help patients consider all the downsides of surgery. Surgery hurts. It involves hardships that must be endured. Even when surgery goes well, patients will find the experience of surgery and recovery burdensome. As such, we should confirm that what we are trying to accomplish with surgery is worth it. This is more than simple disclosure of the probability of a bad outcome; patients need to participate in the work of recognizing the reciprocity between the goals of surgery and its hazards. This deliberation will also help patients and families anticipate and prepare for the experience so they aren't flustered by the inevitable difficult moments.

To do better, we can consider the downsides of surgery comprehensively, in a consolidated “bin of bad stuff” (**Box**). We envision this bin with 3 layers: expected bad stuff, possible bad stuff, and falling short of our goals.

Expected Bad Stuff

Nearly all patients who have surgery have pain and a surgical scar and will need to put time and effort into

recovery. The range of these experiences varies depending on the operation. Laparoscopic cholecystectomy is a routine procedure but includes incisional pain and some time away from work or other responsibilities. In contrast, esophagectomy is more painful, requires at least a week in the hospital, requires weeks to recover, and, when the stomach becomes the esophagus, produces marked change in physical function. These aren't complications, but they affect the patient's life and need to be revealed so patients can consider whether surgery is worth it and prepare for the experience.

Possible Bad Stuff

Possible bad stuff includes bumps in the road, major functional changes, reportable complications, and wholly unanticipated events. Although we see bumps in the road frequently, we rarely mention postoperative delirium or urinary retention (among others) when we talk about surgery, in part because surgeons experience these events as transient. Yet bumps in the road are distressing when they are unforeseen by patients, and some have long-lasting impact. Patients and families might better tolerate this distress with advanced warning, noting the possibility of bumps and providing examples: “He might get confused,” or “It may be difficult to pee,” but it “gets better.”

Major functional changes occur for some percentage of patients after surgery, which may well be worth the surgical goals. For example, multiple loose bowel movements might be a reasonable trade-off for extending life with a colectomy for cancer, but patients who miss the opportunity to deliberately navigate this compromise will be dismayed, like the patient we refer to in the first paragraph. Tolerance for other changes in functional status, such as loss of physical independence or cognitive dysfunction, will vary between individuals based on their values and might be worth it in exchange for some goals, eg, life extension, but not others, eg, preventing future disability.

Next are reportable complications, eg, bleeding, infection, heart attack, stroke, damage to organs, and death, which surgeons disclose routinely. Finally, there are events that are difficult to forecast. Patients are vulnerable to myriad incidents we struggle to foresee, such as corneal abrasion. The range of events is too broad and random to generate a list, although we might cite exemplars. Still, it is important for patients to weigh this vulnerability in deliberation. Supporting patients postoperatively is easier when their emotional reaction is tempered by some forewarning. Patients note, “You told me something like this could occur,” despite not naming “this” preoperatively.

Corresponding

Author: Margaret L. Schwarze, MD, MPP, Department of Surgery, University of Wisconsin School of Medicine and Public Health, CSC Building, 600 Highland Ave, Room K6/134, Madison, WI 53792-3236 (schwarze@surgery.wisc.edu).

Box. Three Layers to the Bin of Bad Stuff**Expected Bad Stuff**

Surgical: eg, pain, work of recovery

Functional: eg, scars, physical function

Possible Bad Stuff

Bumps in the road: eg, postoperative ileus, urinary retention, shoulder pain after laparoscopic surgery

Major changes: eg, chronic diarrhea, loss of independence

Reportable complications: eg, bleeding, infection, death

Wholly unanticipated events: eg, corneal abrasion, numbness from operative positioning

Falling Short of Our Goals

Examples: cancer recurs, back pain persists, bypass fails

Falling Short of Our Goals

Even when there are no complications, surgery can fall short of its goals. We proceed with surgery aiming to help the patient, eg, to live

longer or feel better, but the operation fails to accomplish this goal. Six months after an uncomplicated Whipple procedure, the cancer recurs. The laminectomy proceeds uneventfully, but the patient remains in pain. A wide-open bypass fails in 3 months, and we are discussing limb loss, again. Surgery is a lot to go through and then not be better off. While many patients value the chance to improve their lives, the likelihood of falling short needs to be considered along with other downsides.

A better conversation about surgery goes beyond disclosure of surgical complications and instead presents all the downsides of surgery in an organized way. Surgeons can help patients and families visualize trade-offs and consider whether surgery is right for them by describing the goals of surgery in close juxtaposition to all downsides. This comprehensive approach will allow surgeons to spot patients for whom the downsides of surgery are intolerable, despite otherwise valuable goals, and to communicate their reluctance to operate when the chances of falling short are unconscionable. Helping patients anticipate outcomes will strengthen our relationships and mitigate frustrations when unwanted events occur.

ARTICLE INFORMATION

Published Online: August 23, 2023.
doi:[10.1001/jamasurg.2023.3650](https://doi.org/10.1001/jamasurg.2023.3650)

Conflict of Interest Disclosures: Dr Arnold reported royalties from UpToDate and Cambridge University Press, being a board member for VitalTalk, and being an editor for the American Academy of Hospice and Palliative Medicine. Dr Schwarze reported grants from the Greenwall Foundation and Patient-Centered Outcomes Research Institute. No other disclosures were reported.

Additional Contributions: We thank Justin Clapp, PhD, University of Pennsylvania; Kimberly Kopecky, MD, Johns Hopkins University; and Jacky Kruser, MD, University of Wisconsin, for their review of previous versions of this article.

REFERENCES

1. Nabozny MJ, Kruser JM, Steffens NM, et al. Patient-reported limitations to surgical buy-in: a qualitative study of patients facing high-risk surgery. *Ann Surg*. 2017;265(1):97-102. doi:[10.1097/SLA.0000000000001645](https://doi.org/10.1097/SLA.0000000000001645)

2. Pecanac KE, Kehler JM, Brasel KJ, et al. It's big surgery: preoperative expressions of risk, responsibility, and commitment to treatment after high-risk operations. *Ann Surg*. 2014;259(3):458-463. doi:[10.1097/SLA.0000000000000314](https://doi.org/10.1097/SLA.0000000000000314)

3. Schwarze ML, Buffington A, Tucholka JL, et al. Effectiveness of a question prompt list intervention for older patients considering major surgery: a multisite randomized clinical trial. *JAMA Surg*. 2020;155(1):6-13. doi:[10.1001/jamasurg.2019.3778](https://doi.org/10.1001/jamasurg.2019.3778)