Original Article

"Best Case/Worst Case": Training Surgeons to Use a Novel Communication Tool for High-Risk Acute Surgical Problems

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Abstract

Context. Older adults often have surgery in the months preceding death, which can initiate postoperative treatments inconsistent with end-of-life values. "Best Case/Worst Case" (BC/WC) is a communication tool designed to promote goal-concordant care during discussions about high-risk surgery.

Objective. The objective of this study was to evaluate a structured training program designed to teach surgeons how to use BC/WC.

Methods. Twenty-five surgeons from one tertiary care hospital completed a two-hour training session followed by individual coaching. We audio-recorded surgeons using BC/WC with standardized patients and 20 hospitalized patients. Hospitalized patients and their families participated in an open-ended interview 30 to 120 days after enrollment. We used a checklist of 11 BC/WC elements to measure tool fidelity and surgeons completed the Practitioner Opinion Survey to measure acceptability of the tool. We used qualitative analysis to evaluate variability in tool content and to characterize patient and family perceptions of the tool.

Results. Surgeons completed a median of 10 of 11 BC/WC elements with both standardized and hospitalized patients (range 5–11). We found moderate variability in presentation of treatment options and description of outcomes. Three months after training, 79% of surgeons reported BC/WC is better than their usual approach and 71% endorsed active use of BC/WC in clinical practice. Patients and families found that BC/WC established expectations, provided clarity, and facilitated deliberation.

Conclusions. Surgeons can learn to use BC/WC with older patients considering acute high-risk surgical interventions. Surgeons, patients, and family members endorse BC/WC as a strategy to support complex decision making. J Pain Symptom Manage 2017;53:711–719.

Key Words

Acute care surgery, communication tool, palliative care, shared decision-making

Background

Older adults often undergo surgery in the months preceding death, which can lead to postoperative intensive care unit (ICU) admission and prolonged periods of recovery with progressive decline in functional status.[1–6] Yet, most older people prefer care focused on the relief of symptoms rather than aggressive treatments including ICU care and hospitalization

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near the end of life.[7–9] Despite widespread preference for symptom-focused care, the use of ICU services before death has increased over time.[1,2] Preoperative communication between surgeons and frail older patients who face a decision about high-risk surgery is a modifiable contributor to the use of treatments that are discordant with patient preferences.[10–14] Efforts to improve communication during the decision-making process could decrease unwanted burdensome treatments near the end of life.

For patients who develop life-threatening surgical conditions, preoperative decision making is complex. Given the life-altering consequences and substantial prognostic uncertainty, the "right" decision can only be reached by exploring each individual patient's goals and values. Efforts to improve preference-sensitive medical decisions have focused on the concept of shared decision making and the development of disease-specific decision aids.[15] Although decision aids can improve decision making for many medical choices,[16] they are not applicable or available for in-the-moment treatment decisions for patients who face acute life-threatening illness.

To improve complex surgical decision making for older adults, we developed a novel communication tool called "Best Case/Worst Case" (BC/WC).[13] Building on an established conceptual model of shared decision making[17] and feedback from seniors and surgeons,[18] we designed the BC/WC tool for in-the-moment, acute surgical decisions. Essential tool elements include depiction of two or more treatment choices, creation of a pen-and-paper graphic aid, use of narrative to tell a story about how the patient might experience the outcomes in the best and worst case scenarios, estimation about the most likely outcome, description of how the treatment option affects the larger context of the patient's overall health, and providing a treatment recommendation at the conclusion of the discussion. During the conversation, the surgeon uses narrative to describe the best and worst possible outcomes of each treatment option and creates a graphic aid to illustrate the range and estimated probability of each outcome to leave with the patient and family for future deliberation (Fig. 1).[13] In focus groups, seniors and surgeons praised the tool for depicting "both sides of the story" and clearly

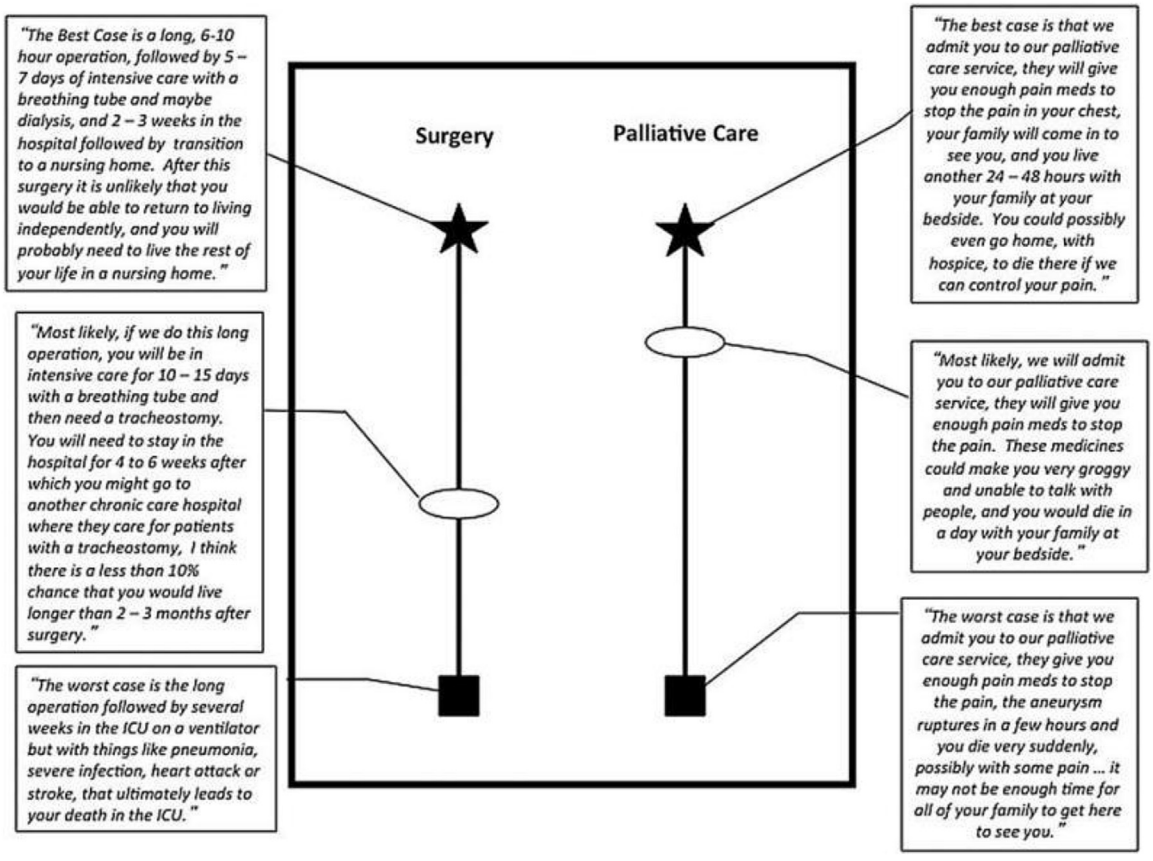

Fig. 1. Example of graphic aid component of BC/WC tool for a patient with a life-threatening surgical condition. The star represents the best-case scenario, the box represents the worst-case scenario, and the oval designates the most likely outcome. The location of the oval indicates whether the most likely scenario is more similar to the best case or the worst case. Adapted with permission from Reference 13.