



My Thoughts / My Surgical Practice

Do we know our patients' goals? Evaluating preoperative discussions in emergency surgery



In the care of patients with a critical illness, providers' accurate understanding of a patient's goals of care is essential.¹ However, particularly in surgical populations, this understanding may be clouded by poor communication and surgeons' tacit expectation of a certain degree of "buy-in" to aggressive postoperative care in the face of declining clinical status.^{2,3} Evidence has shown that surgical trainees are inadequately trained to effectively lead preoperative conversations focused on goals of care and palliation.⁴ Furthermore, the nature of emergency general surgery (EGS) is such that preoperative discussions are both understudied and likely to be suboptimal. As such, we undertook a small pilot study in which we describe critically ill general surgery patients' experience of communication regarding treatment goals in the preoperative phase of acute surgical illness.

We conducted a single-center, prospective survey study over a period of 3 months (May 1 through July 31, 2019). The surgical intensive care unit (SICU) census was screened every weekday morning for postoperative adults ≥ 18 years old admitted to the Emergency Surgery Service at our institution. Patients were approached if and when the Glasgow Coma Scale (GCS) was documented in the chart as 15 by the bedside nurse. If the GCS remained below 15 for 48 h postoperatively, a healthcare proxy was approached. Alternatively, if the patient's GCS was 15 but he or she indicated that a proxy was solely involved in the preoperative conversation with the surgical team, the proxy was approached. Proxies were preferably approached at the bedside; if they were not available in person, they were approached by telephone using a script. Clinical data was entered into a linked form, at the time of survey completion, using manual electronic chart review.

The survey was composed of 12 yes/no and Likert scale questions. Clinical data included age, gender, race, ethnicity, Charlson Comorbidity Index, admission diagnosis, operation undergone, and "do not resuscitate" (DNR) status. Several descriptive analyses were then performed. Comparisons were made using chi-squared tests where appropriate; correlations between Likert scale responses were made using Spearman's rho.

All survey data was collected anonymously using Research Electronic Data Capture (REDCap). Participants were consented electronically via the REDCap link. This study was approved by our Institutional Review Board.

Of the 43 eligible patients, 22 were enrolled (51.2%). The majority of the unenrolled patients either declined consent or had proxies that were unreachable (81.0%). This was a cohort of relatively ill patients, as demonstrated both by a median Charlson Comorbidity Index (CCI) of 5.5 (Interquartile range [IQR]: 3, 8) and self-reported

health status; there was a relatively even sex distribution and a predominance of white and black patients.

Nine (40.9%) patients had established a written advance directive prior to surgery. 12 (54.6%) had designated a legally authorized representative (LAR) and 14 (63.6%) included their health care proxies in their preoperative GOC conversations. The majority of patients affirmed (answered "agree" or "strongly agree") that their surgical teams discussed their prognoses (16/22, 72.7%) and their desires surrounding cardiopulmonary resuscitation (CPR) and intubation (15/22, 68.2%) with them. Fewer (10/22, 45.5%) affirmed that their preferences regarding longer-term interventions such as a tracheostomy or feeding tube were discussed. Similar numbers of patients affirmed that these preferences had been discussed with their families (CPR/intubation: 17/22, 77.3%; tracheostomy/feeding tube: 11/22, 50.0%). Most patients (18/22, 81.8%) affirmed that the care they had received was in line with their goals.

The correlation between responses for discussions regarding resuscitative measures with surgical teams and family members was 0.74 ($p = 0.0003$). Similarly, the Spearman coefficient for responses regarding tracheostomy and enteral feeding access discussion with surgeons and family members was 0.69 ($p = 0.0014$). There was no correlation between having a preoperative advance directive and having a preoperative discussion regarding resuscitative measures with one's surgeon ($\rho = 0.44$, $p = 0.0695$). There was a correlation between having a preoperatively designated LAR and having such a discussion with one's surgeon ($\rho = 0.59$, $p = 0.0097$).

In our cohort, patients reported GOC conversations with their surgical teams with surprising frequency. The most significant limitation in our single-institution pilot study is the recruitment rate, with just over 50% enrollment. This is a challenging population to study; patients and their families may be reluctant to participate in a voluntary study in the acute phase of critical illness. In addition to the limitations of having an overall small sample size, there is likely an element of selection bias; those who are faring well and/or are satisfied with their care may be more likely to enroll.

We recognize these limitations, but emphasize the importance of beginning to study this topic in our population of critically ill surgical patients. Improved understanding of this issue and the populations to which it is most applicable⁵ should inform efforts to create a framework for improved communication.^{6,7} Future, prospective, multi-center study should focus on direct observation of preoperative discussions, describing patient experiences in a generalizable manner, identifying barriers to surgeon-patient communication, and developing strategies to improving preoperative

discussions in EGS.

Author contributions

JSH, HHHP, NDM: conceptualization, data interpretation, and drafting of the manuscript. HHHP, KD, and WO: data collection. JSH: data analysis. KD, WO, NG, NO, LJK: critical review and revision of the manuscript.

Declaration of competing interestCOI

No authors have conflicts to declare.

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