

## THE PENETRATING POINT

## Why Surgeons Can Say “No”: Exploring “Unilateral Withholding”

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**OBJECTIVE:** To explore why it is permissible for surgeons to “unilaterally withhold” surgery, whereas it is not commonplace (in the United States) to unilaterally withhold cardiopulmonary resuscitation (CPR) for clinical situations with similar degrees of uncertainty and prognosis.

**DATA SOURCES:** The medical literature was sampled using PubMed and Google search engines, employing a variety of search strategies to capture articles relating to medical/surgical decision-making, risk aversion, acute care surgery, and withholding life-saving therapies. These topics are used to highlight interprovider variability that affects all practitioners—not just surgeons—and to consider why we deem it permissible for surgeons to withhold surgery, whereas—in the United States, at least—it is not routinely permissible for clinicians to unilaterally withhold mechanical ventilation and CPR for cases with similar prognoses.

**CONCLUSIONS:** While there are no published research studies that deal directly with this topic, knowledge, heuristics, experience, variable aversion to risk, and other features inherent in medical-surgical education likely impact decisions to offer or withhold potentially life-saving therapies of all kinds. Both surgeons and clinicians, who request surgical consultation for hospitalized patients, should consider these issues and politely pursue second opinions when there is any doubt whether forgoing surgery is in the patient’s best interests. Similarly, while unilateral withholding of CPR is not commonly employed in some medical cultures, including the United States, beneficence can be facilitated through robust informed consent. *Journal of Hospital Medicine* 2012;7:249–253 © 2011 Society of Hospital Medicine

Each day, hospitalists interact with a variety of specialists and sub-specialists to provide consultative or procedural assistance in care of their patients. Physicians have a duty to practice beneficently and to simultaneously respect patients’ autonomy.<sup>1</sup> Whether to offer a treatment is a function of many variables, but when benefits approach zero, or when risks substantially outweigh benefits, physicians may justifiably withhold therapies without assent or consent of patients.<sup>2</sup> The purpose of this article is to explore why it is accepted practice in the United States to permit unilateral withholding of some potentially life-prolonging treatments (eg, surgery as the paradigm), while it is not common practice for other critical care procedures (eg, cardiopulmonary resuscitation [CPR]). We offer that these examples demonstrate the tension of 2 pillars of medical ethical conduct, namely beneficence and respect of autonomy.<sup>1</sup>

Consider 2 real cases that demonstrated a juxtaposition of diametrically opposing views of thoughtful, capable surgeons asked to provide life-saving surgery to critically ill patients.

**CASE 1**

A 33-year-old man, with a history of obesity, presents with mild epigastric pain and hematemesis of a day’s duration. Endoscopic evaluation demonstrates a deep gastric ulcer with visible vessel that is injected with epinephrine. He is transferred to the medical intensive care unit (ICU) for monitoring and has an uneventful first 24 hours. On his second hospital day, he develops severe epigastric pain of sudden onset, accompanied by light-headedness. He is diaphoretic and dyspneic, sitting bolt upright. His body mass index (BMI) is 40 kg/m<sup>2</sup>, and his vital signs are: 130/min, 140/80 mmHg, 30/min, 99.0°F. Examination is normal except for severe upper abdominal tenderness, absent bowel sounds, and voluntary guarding. Abdominal computed tomography demonstrates a perforation, free air, and a loculated collection adjacent to the original ulcer. He is treated with 4 liters of crystalloids, oxygen, and an emergent surgical consultation is performed. The examining surgeon confirms the diagnosis of acute perforation, but asserts that his operative risk of mortality, due to obesity, is excessive. “He will never get off the ventilator.” He advises watchful waiting. The medical intensivist believes the patient will die without surgery; he asks for a second opinion. A more senior colleague assesses the patient and reiterates the first surgeon’s opinion. The intensivist begins preparations to transfer the patient to the nearest tertiary care center for a third opinion, when the surgeons reverse themselves. The patient is taken to surgery where the collection is removed, with partial gastrectomy. He is extubated in

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the recovery room, spends 12 hours in the ICU, and is transferred to the wards where he undergoes an uneventful recovery.

## CASE 2

A 50-year-old man, with a history of end-stage alcoholic cirrhosis, presents to the intensive care unit with respiratory embarrassment associated with tense ascites, complicated by pneumococcal pneumonia. He responds to antibiotics but has rapidly reaccumulating ascites, where large volume paracentesis (of 4-5 liters of transudative fluid) is required every 3 to 4 days to promote weaning trials. On his 20th hospital day, the patient develops fulminant septic shock, and work-up reveals free air in the abdomen. A Board-certified critical care surgeon meets with the family and informs them that he is willing to attempt exploratory laparotomy, but that operative mortality exceeds 95%. However, he was willing to try because the alternative otherwise is >99% mortality. The family asks for surgery, which reveals a small perforation, but the patient dies shortly thereafter.

In both cases, patients were very likely, if not certain, to die without operative procedures. Equally certain, the (critical care) surgeon in the second case might find case 1's surgeons neglectful. And they might consider operating on case 2—with >95% preoperative mortality—malpractice.

## WHY IS SURGERY DIFFERENT FROM CPR? BENEFICENCE VERSUS AUTONOMY MODELS

Why can surgeons withhold potentially life-saving surgery, whereas most US physicians—surgeons or internists—do not (routinely) unilaterally withhold CPR or mechanical ventilation?<sup>3</sup> A variety of possible reasons may underlie this asymmetry. First, to compel a surgeon to “cut” another human against his/her judgment would violate the surgeon's autonomy. But why is the act of “cutting” viewed differently from the act of intubating and ventilating, or compressing and shocking? The bodily integrity of the patient is violated in both. Nobody would take issue with a surgeon who assesses a 2% chance of survival and so does not offer surgery. Yet physicians struggle often with patients/surrogates who demand CPR/mechanical ventilation for similar prognoses.<sup>4</sup> In the United States, CPR has crept into general acceptance (ie, when the only other option is death) as a system-wide “default.” In the case of surgery, the judgment of the physician is accepted both by patients and the medical establishment, whereas for CPR—with hypothetically identical consequences—the patient must opt out. Neither model is right or wrong; but the focus in the balance of decision-making (paternalism/beneficence vs autonomy) is different.

Albert Jonsen introduced “the rule of rescue” which suggests that we have an instinctive response to “rescue the doomed.”<sup>5</sup> Surgeons can make the reasonable

argument that, in some cases, surgery is only likely to hasten death, and so beneficence requires that they not provide it. The same argument cannot be made for CPR; we do not provide it until patients have already died. And some (albeit small) fraction of the sickest patients survive. For example, 6.4% of those on 2 or more vasopressors who arrest, survive hospitalization.<sup>4</sup> Another distinction between CPR and surgery is that when a physician does not withhold CPR for a patient who he thinks is not likely to benefit, he is ordinarily not the party providing the CPR. Most hospitals have teams of individuals who may or may not know the patient and the precise pathophysiology and ethics of their case. So there is greater physical “distance” (than with surgery) between making the decision and performing the procedure. Moreover, the process of informed consent is temporally proximate and prior to the need for surgery, whereas informed consent is not uniformly obtained a priori, and never after cardiac arrest in a patient who has not previously opted out.

## PROBLEMS INHERENT IN BOTH EXTREMES

Viewed through the prism of ethical principlism,<sup>1</sup> the ability to withhold surgery may be viewed as “beneficence-strong/autonomy-weak (BS/AW)” whereas prohibiting physicians from withholding CPR when it is only likely to prolong death is “beneficence-weak/autonomy-strong (BW/AS).” These extremes have definable risks that can be named and minimized.

### Risks of Beneficence at the Expense of Autonomy

All physicians routinely assess patients to determine whether the risk of a particular intervention (eg, surgery or CPR) outweighs potential benefits. Since unilateral withholding of CPR has not been studied, we can only examine what is known about factors that may impact decisions to withhold surgery. While an elegant study demonstrated substantial interoperator variability of surgeons' opinions for elective cases,<sup>1</sup> no similar studies have been performed to quantify or qualify this problem for emergency cases. Nonetheless, some factors that may contribute include:

1. *Knowledge and heuristics*—We only know what we know. So the surgeon's knowledge about a particular surgical problem and heuristics are sure to contribute to the result of the calculus preceding whether to offer surgery.<sup>6–10</sup> Unilateral withholding of any potentially life-saving therapy (surgery or CPR) should be predicated on near-certitude. Unfortunately, clinicians of all specialties are not particularly good at prognosticating. All available evidence suggests that doctors are very poor at predicting which severely ill patients will live or die, and when.<sup>11–13</sup> In a study that calls into serious question the accuracy of prognostication of critically ill patients, Meadow and colleagues showed that only half of “patients with a prediction of ‘death before

- discharge’ actually died in hospital.”<sup>11</sup> So the clinical judgment upon which risk estimates are predicated, are themselves imprecise and vulnerable to a multitude of heuristics.<sup>8</sup>
2. *Risk aversion*—Risk proclivity is inherent in all medical disciplines, and is likely impacted by a multitude of factors, including genetics,<sup>14,15</sup> upbringing, moral beliefs, fear of litigation (even if reduced by informed consent), and effect of bad outcomes on reputation and morale. A review demonstrates the epidemiology of risk-taking across various disciplines, but there is very little data regarding the impact of risk and ambiguity on surgeons’ practice.<sup>16</sup> Medical culture can also impact risk aversion. Morbidity and Mortality Conference (M&M) could serve as a disincentive to undertaking risky care, but such fears can be attenuated by minimizing “cultures of blame.”<sup>17</sup>
  3. *Experience*—There is scarce data on the effects of years of experience on surgeons’ practice. It is plausible that surgeons with greater experience—with a more extensive personal library of cases—are more comfortable or “certain” about outcomes. There is data to support that older surgeons are more risk-averse, but the reasons have not been deciphered.<sup>18</sup>
  4. *Death by omission or commission*—Ethicists argue that if the result is the same (ie, the patient is very likely to die irrespective), acts of commission are not morally distinguishable from those of omission. Yet, clinicians in various fields are predisposed to “omission bias,” that is, when faced with the choice of action or inaction, when the result is likely to be the same, we often favor inaction.<sup>19–21</sup> So it is not surprising that some surgeons, when faced with difficult, life–death decisions regarding surgery, favor omission, because to act—to perform surgery and the patient dies nonetheless—includes the possibility that their action could have caused the death, whereas the result from the alternative (ie, no surgery) is unknown.<sup>20</sup> The reciprocal is also true, but omission bias allows the surgeon to attribute death entirely to “the disease” (even if there was a small chance that surgery could have changed the course). If the chances of success of surgery are small, and the chances of death and/or prolonging suffering are substantially larger, beneficence (and non-maleficence) is certainly an appropriate consideration.<sup>2</sup> But the thresholds, that is, percent likelihood of success versus percent likelihood of failure defined as death or prolonged suffering, at which surgeons withhold (ie, omit consideration; don’t offer surgery) will vary based on their own views of professional and moral obligation,<sup>22</sup> and some of the factors (ie, knowledge, heuristics, risk aversion) suggested above.

Withholding CPR does not *cause* the death of the patient, who has already died. We may have hardwired survival bias that CPR will not harm a dead person—because success entails life. There is an

intrinsic (biological or value-laden) presumption that life is always preferable to death, so “there is nothing to lose.” Yet many patients don’t want CPR after they’ve learned the risks, benefits, and alternatives.<sup>23</sup> And beyond issues of patient autonomy, CPR by default has a number of additional negative consequences, including “reinforcement of false optimism,”<sup>24</sup> prolongation of dying in many initial survivors, and distress to clinicians who administer this invasive therapy to some patients who are highly unlikely to benefit. But, as Pope articulates, there is currently a “now supposed *right* of patients to make requests for non-indicated CPR.”<sup>24</sup>

5. *Other*—Medical decision-making is an extremely complex process and is certainly impacted by a multitude of variables. Even nonmedical or logistic exigencies, not considered here, could—in theory—affect or frame decisions. Surgery often involves hours of hard work and a large emotional investment, whereas CPR is a relatively impersonal procedure, most often performed on an individual we don’t know, and seldom lasting for more than an hour. So it is possible that differences in operators’ personal/emotional investment impact the apparent inconsistency (of why surgeons can say “no,” while it is rare to unilaterally withhold CPR).

Other psychological factors, including patients’ expectations and physicians’ fears may also play a role. Popular culture has (mis-)shaped patients’ understanding of CPR, grossly overestimating success of the procedure.<sup>25</sup> Misunderstanding is coupled to “creep” of CPR from a procedure initially introduced for highly selected cardiac care patients, to a default/right for all Americans. Patients simply don’t expect life-saving surgery on demand; whether it’s the “mystery” of the OR, or some other factor, they’re more willing to rely on the surgeon’s clinical judgment.

We offer the 4 possibilities discussed above, not as an exhaustive list, but rather to spur greater consideration and discourse on this subject. Even a survey, similar to that undertaken by Rutkow and colleagues to examine elective surgery decisions,<sup>6</sup> would be a first step to answering this question with more precision and detail.

## RECOMMENDATIONS FOR MINIMIZING ETHICAL RISKS

### Life-Saving Surgery

The inherent ethical risks of extremes (eg, BS/AW as with withholding surgery vs BW/AS as with CPR) can be attenuated. Those who are highly uncomfortable with high risk could make it known, and their exposure to covering in situations where high-risk patients are likely to be encountered could be minimized wherever possible. In recent years, “acute care surgeons” have been self-selected and trained to deal with critically ill patients.<sup>26</sup> It stands to reason that ranges of

risk aversion are likely to exist among surgeons—and that those who select acute care surgery will have greater facility and comfort with high-risk critically ill patients. Since there are insufficient acute care surgeons in the country, even if they were preferable (which is unproven) for high-risk critical care surgery, general surgeons would still be required to fill the manpower gap to staff acute care hospitals appropriately for these problems.<sup>26,27</sup> Surgery, like all of Medicine, will always remain as much art as science, and variability is sure to impact what decisions are made in the care of acutely ill patients; it is a premise of being human. Those who know that they are risk-averse, but are in a situation of assessing a case with very high but not 100% risk, could acknowledge this in their assessments and offer opportunities for second opinions using validated prognostic tools where possible.<sup>28</sup>

As some have suggested,<sup>9</sup> metacognition, that is, greater attention to thinking about how we think, should be included in all medical curricula. If we consider carefully “is there no chance of survival or only small chance of survival,” then an optimal model of shared decision-making can result. For those where they estimate no chance: “It is my best professional opinion that your loved one will certainly die if surgery is performed, so I cannot provide it in good faith. But since this decision involves such finality, I’m glad to help you obtain a second opinion if it will help your peace of mind.” Or: “It is my best professional opinion that your loved one will die without surgery. While there may be a very remote possibility of a miracle, surgery is only likely to prolong death and suffering; the likelihood of survival is very low and the quality of that survival is likely to be very poor . . . what would he want?” Such an approach acknowledges the imprecision of medical science, and fully respects autonomy of patients. Beneficence, non-maleficence, and respect of autonomy can be served simultaneously without unilateral withholding, in those cases where perioperative mortality is not believed to be 100%.

Additionally, metacognition is a deliberate method for increasing the likelihood that our conclusions are predicated on sound medical science and judgment, and not on biases (eg, heuristics), exigencies related to the healthcare system (eg, resource/personnel availability), fear of litigation, or patient traits. To the extent that socioeconomic variables impact the quality and quantity of care provided to American citizens,<sup>29</sup> it is particularly imperative that unconscious, value-laden effectors of behavior not impact life and death decisions.

Surgical leaders should provide “psychological safety”<sup>30</sup> for surgeons who offer surgery that is not futile, but highly unlikely to succeed, if proper care is taken to quantify and share risks, benefits, and alternatives with patients/surrogates.

Finally, medical physicians who request surgical consultations should always communicate directly, whenever possible, with surgical colleagues. Not infrequently, details are clarified that permit the most accurate cost–benefit ratio. If a surgeon feels that surgery will only prolong dying or cause immediate death, and the internist is not so sure (as in case 1 above), a second opinion can be requested respectfully.

### Withholding Cardiopulmonary Resuscitation

Unilateral withholding of CPR is a more difficult problem. Since some (albeit a small percentage) of even the most critically ill patients survive, it would be difficult to assert that CPR would be futile in the preponderance of very ill patients.<sup>4</sup> There is simply no tool that pre-defines with certainty successes and failure. There are patients with end-stage diseases (eg, widely metastatic cancer, end-stage dementia, or heart disease) where the short-term prognosis without cardiac arrest is abysmal, and survival after CPR is only likely to extend a patient’s suffering. To date, some medical cultures, notably the United States, have not allowed physicians to act beneficently to withhold CPR in such circumstances, requiring instead consent or assent of the patient or surrogate.<sup>31,32</sup> For those who practice in this model, there is “room for” greater beneficence at the expense of autonomy, but such will come only if accepted norms of conduct change in this medical culture. Medical norms in other countries permit physicians greater latitude to withhold CPR in such situations,<sup>33</sup> whereas it is not common in the United States. The risk, of course, is that CPR is withheld unilaterally for patients who otherwise would have wanted it and survived. Nonetheless, perhaps greater emphasis on truly informed consent for CPR increases our duty to beneficence and reduces the likelihood that a patient will insist on CPR that is contrary to their best (medical) interests. There is abundant evidence that patients do not fully understand the risks, benefits, and alternatives of CPR, but when apprised, many opt out.<sup>23</sup> The improbable likelihood of survival *and* the long-term prognosis (including quality of life) following CPR, and the resulting stay in the critical care unit, should be included in truly informed consent for this procedure. Then, beneficence can be served more fully, albeit short of unilateral withholding. Importantly, while informed consent for CPR may respect patient autonomy, it does not address the (arguably incorrect) notion that CPR is a right.<sup>24</sup> Such a shift in views/practices—of both clinicians and laypersons—might require substantial investment by professional societies and policy-makers to engage citizens. It has taken 50 years for CPR to be viewed as a right in the United States, and it is likely to require considerable focus and effort to modify that expectation.



Our acutely and critically ill patients are most vulnerable and at the highest risk of adverse and irreversible consequences resulting from medical decisions—whether for surgical or nonsurgical treatments. We will never eliminate entirely interprovider variability of skills and behaviors. But to the extent possible, we might acknowledge and attenuate, where possible, human and systems features that contribute to inconsistent care. It is worth stressing here that while this discussion has been focused through the prism of surgical care, these concepts apply to all medical disciplines. A transparent, mindful approach—that applies shared, rather than unilateral decision-making, whenever possible—may simultaneously protect the autonomy of both physicians and patients.

### Postscript

Interested readers can explore this topic in greater detail in: Lo B. *Resolving Ethical Dilemmas: A Guide for Clinicians*. Philadelphia, PA: Lippincott Williams & Wilkins; 2009.

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