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Strategies for Collaborative Consideration of Patients' Resuscitation Preferences

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Abstract

Procedural treatment teams encounter patients with preoperative do-not-resuscitate (DNR) orders who are seeking procedural interventions to improve their quality of life. *Required reconsideration* is the professional discussion standard that seeks to engage patients or their surrogate decision makers in revisiting patient preferences for rescinding or maintaining a DNR order perioperatively. This article canvasses features of a required reconsideration discussion and guidelines for adhering to this standard.

Perioperative DNR Decision Making

Since the passage of the Patient Self-Determination Act in 1990, patients have been legally supported in their right to participate in and direct their own health care decisions. The law itself was written to encourage discussion between health care professionals and patients regarding autonomy, especially at the end of life.[1,2] The tenets of medical ethics similarly support patient autonomy in the context of perioperative decision making, complementing legal perspectives.[3]

Perhaps one of the most misunderstood situations confronting patients, surrogate decision makers, and clinicians practicing anesthesia or surgery is the handling of an existing do-not-resuscitate (DNR) order perioperatively.[4,5] In clinical practice, a DNR order is commonly suspended temporarily while a patient is undergoing a surgical intervention, despite the fact that such a suspension might conflict with a patient's preference to maintain the DNR order throughout the preoperative period. Patients and surrogate decision makers might be challenged by clinicians to rescind a DNR order perioperatively because normal vital sign parameters can be compromised by anesthetic agents and other pharmaceuticals used to provide anesthesia during surgery, necessitating elements of cardiopulmonary resuscitation (CPR) that would otherwise be precluded if patients maintained their DNR order. Therefore, a DNR order is in direct opposition to anesthesiologists' scope and responsibilities of practice. Additionally, patients are more likely to survive perioperative than out-of-hospital CPR,[6] thus calling into question why a DNR is medically appropriate in this setting. Indeed, if perioperative resuscitation is likely to be

successful and offer a therapeutic benefit, it might actually align with a patient's goals and preferences for care. Mandated resuscitation conflicts with the ethical principle of respect for patient autonomy and the legal right of a patient or surrogate decision maker to refuse unwanted treatment.[2,7] For these reasons, a comprehensive review concluded that it is unethical to automatically rescind such orders.[8]

When an anesthesiologist or surgeon discusses a patient's perioperative DNR order with the patient or surrogate decision maker, it is referred to as a *required reconsideration discussion*. Data show that implementation of required reconsideration during the perioperative period has been slow,[9] although it has been recommended in professional society statements, including those of the American Society of Anesthesiologists (ASA),[10] the American College of Surgeons (ACS), and the Association of Perioperative Registered Nurses (AORN).[11] This article focuses on the need for surgeons and anesthesiologists to conduct required reconsideration discussions with patients regarding code status in the perioperative period—specifically, to determine how patients with a DNR order might choose to modify their code status while undergoing a procedural intervention.

What Happens in Practice

There is evidence that anesthesiologists are unfamiliar with the current guidelines. Nurok et al's 2014 study showed that up to 55% of attending anesthesiologists at an academic medical center were unfamiliar with the ASA and ACS guidelines on advanced directives in the perioperative setting.[5] A prior study similarly showed that 18% of academic anesthesiologists and 38% of surgeons agreed that preexisting DNR orders should automatically be suspended for patients undergoing intraoperative interventions.[7] Moreover, a multi-institutional simulation study published in 2018 showed that 10% of clinicians would intubate an unstable patient with a do-not-intubate order. This study also found that physicians' perception of the "reversibility" of the patient's situation influenced their decision to intubate, as did their presumption of patient preference.[12]

Nevertheless, institutional guidelines are available. Waisel et al have outlined guidelines for institutional adoption of perioperative reevaluation of DNR orders.[13] Baumann et al have also shared the process of their quality improvement efforts.[14] Factors limiting implementation of required reconsideration discussion include tradition, time constraints, and the routine care accompanying resuscitation that is provided by anesthesia and surgical staff.[15] Other barriers to implementation include fear of legal liability, documentation requirements, and the need for flexible written policies that respect the moral agency of the treating clinicians.

Patient Perspective

The ethical principle of respect for autonomy relies on patients' freedom of choice to make their own decisions based on their goals and values.[16] A study of patients with acting DNR orders found that 88% agreed that patients with preexisting DNR orders should receive information about suspension of the DNR order during the perioperative period.[17] All patients who agreed that a discussion should take place recommended that family members or supportive caregivers be present for the discussion. And all of the patients interviewed in this study agreed that patients should be offered the opportunity to maintain their DNR status during the perioperative period. A similar study showed that 92% of all-comers seen in a preoperative evaluation clinic (with unknown code status) agreed that a discussion regarding perioperative resuscitation plans should always occur.[7]

In practice, patients or surrogates often have an inadequate understanding of the situation and their choices, including the implications of those choices. Modes et al found that 69% of patients who prioritized relief of pain and discomfort preferred CPR in their current state of health while 33% of people who preferentially valued extending life would not want CPR if they would be dependent on others.[18] These conclusions are somewhat unsettling, given that medical professionals—anesthesiologists and surgeons alike—often rely on advance directives to help guide their clinical decisions.[19]

Anesthesiology Perspective

Anesthesiologists know that anesthetic interventions inherently affect vital functions, often resulting in respiratory depression or hemodynamic instability that make the use of mechanical ventilation and vasopressors tantamount to resuscitation. For these reasons, an argument can be made that any patient with a preoperative DNR logically should not receive anesthesia.[8]

With the introduction of the Patient Self Determination Act in 1990, the anesthesia community began to gradually reconsider how to handle patients with a DNR order in the perioperative setting. Initially, patients and surrogate decision makers were presented with options of either rescinding the DNR or keeping it in place.[20,21,22] It wasn't until 1998 that the ASA Committee on Ethics revised its initial guidelines to include a third option.[23] This third approach is more pragmatic and respects a patient's goals and values. Nevertheless, anesthesiologists can and do make predetermined decisions to forego intraoperative interventions that do not align with a given patient's overall goals of care. In one survey, 91% of anesthesiologists responded that they strongly or somewhat agree that a patient with decision-making capacity should be given the opportunity to refuse attempts at resuscitation in the setting of intraoperative cardiac arrest.[7]

The statistical knowledge[6,15,24,25] of better outcomes of intraoperative cardiac arrest compared to out-of-hospital cardiac arrest can be discussed with

patients, but this supportive data is not a reason to rescind a DNR order without a required reconsideration discussion. In fact, the viable survival rate from intraoperative cardiac arrest is only approximately 25%.[6]

Surgical Perspective

Surgeons are more likely than anesthesiologists to automatically rescind a DNR order at the time of operative intervention. Seventy-five percent of surgeons surveyed by Burkle et al felt that active DNR orders didn't make sense during surgical procedures, and many surgeons held a fixed presumption that patients are all in for the duration of the perioperative period (ie, that DNR orders should automatically be suspended during surgery).[8] These and other beliefs[26] have direct consequences for surgeon behavior, including (1) unwillingness to operate on patients who set boundaries on postoperative interventions and (2) refusal to withdraw life-sustaining treatments.

Because of their ongoing care of patients in the postoperative setting, surgeons struggle more than anesthesiologists when patients ask them to acknowledge or honor limitations on care. This phenomenon can in part be explained by surgical "buy-in." As described by Schwarze et al, surgical buy-in is a complex process by which surgeons negotiate a commitment to postoperative care with patients before undertaking high-risk surgical procedures.[26] In particular, surgeons seek a commitment from the patient to abide by prescribed postoperative care in isolation of potential prolonged suffering or a change in the anticipated clinical outcome, which would then no longer align with the patient's goals and values. Additionally, Christakis and Lamont found that, as the duration of the physician-patient relationship increased, prognostic accuracy for terminally ill patients decreased; physicians' optimism potentially provides a rationale for continued aggressive care at the end of life.[27]

Framing Discussion

The decision to maintain or revoke a DNR order in the operating room (OR) depends on patients' understanding of their illness and their broader goals of care. Cooper et al convened a panel of national leaders who made recommendations for best communication practices to facilitate goal-concordant care for seriously ill older patients with emergency surgical conditions. These recommendations include 9 key elements:

(1) formulating prognosis, (2) creating a personal connection, (3) disclosing information regarding the acute problem in the context of the underlying illness, (4) establishing a shared understanding of the patient's condition, (5) allowing silence and dealing with emotion, (6) describing surgical and palliative treatment options, (7) eliciting patient's goals and priorities, (8) making a treatment recommendation, and (9) affirming ongoing support for the patient and family.[28]

If the patient or surrogate elects to move forward with surgical intervention, a perioperative plan can be formulated and adhered to. This perioperative plan

would serve as a guideline for therapeutic interventions and goals of care that would align with the patient's expressed preferences and address unwanted interventions while clearly outlining the expected quality of life that would be acceptable to the patient during recovery and beyond. This plan can inform all members of the perioperative treatment team—including surgeons, anesthesiologists, and nurses—about the patient's goals of care and should be clearly documented in the patient's medical record.

Putting Required Reconsideration Into Practice

The ASA's Ethical Guidelines for the Anesthesia Care of Patients With Do-Not-Resuscitate Orders or Other Directives That Limit Treatment suggests that there are 3 alternatives to consider when caring for patients with DNR orders during anesthesia care[29]:

1. "Full Attempt at Resuscitation."
2. "Limited Attempt at Resuscitation Defined With Regard to Specific Procedures" (eg, chest compressions, mechanical ventilation, or chemical intervention).
3. "Limited Attempt at Resuscitation Defined With Regard to the Patient's Goals and Values." Based on "the patient's stated goals and values," the members of the surgical team should be allowed to use their clinical judgment to determine "which resuscitation procedures are appropriate," depending on the context of the situation.

We agree with Waisel et al that the leading hurdle in following these recommended guidelines is clinician bias towards an expected course of action.[13] If there are members of the OR team who have moral or ethical objections to participating in the care of a patient with a perioperative DNR in place, arrangements must be made to permit such individuals to withdraw from the case and to provide a suitable alternative team member in a timely manner.[30]

Upshot

In sum, when a patient with a DNR order undergoes a procedure involving anesthesia or conscious sedation, the DNR order should be formally reconsidered using the required reconsideration framework, beginning in the preoperative period. We suggest that a decision to maintain or rescind a DNR order should be made in the context of the patient's overall goals of care and that honoring patient autonomy and patient preference at the end of life should outweigh physician concerns about perioperative metrics or quality measures.[31]

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