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## IN THE LITERATURE

### Perioperative Do-Not-Resuscitate Orders

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Truog R. "Do not resuscitate" orders during anesthesia and surgery. *Anesthesiology*. 1991;74(3):606-608.

American Society of Anesthesiologists Committee on Ethics. Ethical guidelines for the anesthesia care of patients with do-not-resuscitate orders or other directives that limit treatment. Approved by the ASA House of Delegates on October 17, 2001, and last amended on October 16, 2013.

<http://www.asahq.org/~media/sites/asahq/files/public/resources/standards-guidelines/ethical-guidelines-for-the-anesthesia-care-of-patients.pdf>.

In 1990, the United States Congress passed the Patient Self-Determination Act in response to public concerns over the medical profession's lingering authoritarianism and paternalism in decision making about life-sustaining therapies. This law requires that patients receiving medical care in federally reimbursed facilities be informed of their rights under state law to consent to and refuse medical therapy [1]. It is notable that this federal law focuses on a patient's right to refuse medical treatment, including life-sustaining therapy, thus tacitly recognizing that without the opportunity for informed refusal, there can be no informed consent [2, 3].

The do-not-resuscitate (DNR) order, a medical and legal document that reflects the patient's decision and desire to reject life-sustaining interventions, is predicated on the concept that patients (or their surrogates) may choose to forgo certain resuscitative procedures—and their possible benefits—because they reject the possible burdens associated with them. These burdens may be related to either the resuscitation attempt itself (as with fractured ribs) or the decrement in functional or cognitive capacity that may occur despite a "successful" resuscitation.

A significant number of patients with DNR orders, however, agree to have surgery and other procedures, many of them palliative in nature. Common examples are tracheostomy, gastrostomy, bronchoscopy, catheterization for central venous access or pain management, and repair of a broken hip or release of a bowel obstruction. Historically DNR orders were suspended during such procedures.

Robert Truog: Individualized, Rather than Automatic, Suspension

The year after the Patient Self-Determination Act passed, Robert Truog wrote a seminal paper analyzing the (then) routine management of existing DNR orders for patients who were about to undergo anesthesia and surgery or an invasive procedure [4]. Truog called

attention to the fact that automatically suspending a patient's DNR order when he or she entered the operating room violated the federal act. This disregard for patient autonomy was starting to be challenged not only by patient-rights advocates but also by bioethicists. Indeed, consensus was mounting that automatic suspension of DNR orders could not be ethically justified [5-15].

*Conflicts between anesthesia and an existing DNR order.* As Truog points out, it is assuredly unpleasant and uncomfortable to provide anesthesia care for a patient with a DNR order. After all, patients who have DNR orders in place are usually in the terminal phase of a disease. Moreover, they are likely more susceptible to the adverse or depressive effects of anesthetic drugs and maneuvers. However, "many feel it is inappropriate for a patient to die as a direct result of an anesthetic complication" [16]. Yet, according to Truog, even if a life-threatening complication is iatrogenic, this in and of itself is not a reason to override a DNR order. If there is a valid reason for suspending existing DNR orders during anesthesia and surgery, then it "must be found within the unique nature of anesthetic practice" [16].

Truog argues that several aspects of anesthetic treatment justify suspension of DNR orders during surgery, but that the specifics of that suspension must be individualized and discussed with patients. For one, Truog argues, general anesthesia or sedation (even light or moderate sedation) can result in the need for resuscitation from depression of vital functions. Furthermore, as stated previously, terminally ill patients often possess a degree of physiological dysfunction that predisposes them to hemodynamic or pulmonary instability or collapse when exposed to the depressive effects of anesthesia. It is therefore conceptually challenging to differentiate resuscitative maneuvers inherent to standard anesthesia practice from "resuscitation." One could reasonably infer, then, that informed consent for anesthesia includes consent to the full benefits of standard anesthetic practice and is therefore, in effect, a consent for resuscitation and inconsistent with the continuation of an existing DNR order.

Importantly, some patients who enter the operating or procedural room with an existing DNR order might prefer an attempt at resuscitation after an arrest that is judged likely to be reversible. In fact, there is a much greater likelihood of quickly and successfully reversing a cardiopulmonary arrest related to the anesthesia or the procedure than one caused by a spontaneous event such as a myocardial infarction [4]. As Truog states, "every arrest that occurs under anesthesia must be considered the result of an intervention, and thereby potentially reversible, until proven otherwise" [17]. Therefore, an all-purpose preexisting DNR is not necessarily applicable during an anesthetic.

*Topics to be discussed with patients, rather than dictated by policy.* Truog recommends that this question of whether spontaneous and iatrogenic arrests are to be handled differently should be factored into the preanesthesia discussion about whether to retain the existing DNR order. From a patient's point of view the cause of the arrest may be irrelevant because it does not significantly alter the factors that prompted the request for a DNR order—preoperative functional status and threshold for further burdens while dying.

Truog also advocates that both the anesthesiologist and proceduralist discuss with the patient (and among themselves) the potentially prolonged adverse physiological effects of

the anesthetic and surgery. Excluding pulmonary effects, these generally resolve within several hours after surgery, after which time any resuscitation or continued physiologic support is to be withdrawn [3, 4]. Because recovery of respiratory function may take as long as several days, ventilatory support can be continued as long as there is evidence of sustained improvement in pulmonary function. Appropriately, Truog dispenses with concerns about whether it is better to withhold care than to begin and then withdraw it by reminding the reader that there is uniform agreement among bioethicists that withdrawing and withholding life support are morally equivalent [4, 18].

While Truog ultimately concludes that existing DNR orders *may* not be applicable or ethically appropriate during surgery, he advocates for preanesthetic discussion and personalizing decisions about resuscitation-related matters, rather than imposing one-size-fits-all policies on patients.

#### American Society of Anesthesiologists Committee on Ethics Guidance

The year after Truog's article was published, the American Society of Anesthesiologists (ASA) reestablished its Committee on Ethics, whose first task was to develop an opinion and guidelines relevant to this matter. Within a year this extraordinary committee had produced "Ethical Guidelines for the Anesthesia Care of Patients with Do-Not-Resuscitate Orders or Other Directives that Limit Treatment," which was adopted by the ASA in the fall of 1993 [19]. The current version states that "policies automatically suspending DNR orders...may not sufficiently address a patient's rights to self-determination in a responsible and ethical manner. Such policies...should be reviewed and revised" [20].

The essence of these guidelines is a required reconsideration or reevaluation and renegotiation of the DNR order. With the committee's prompting, the ASA guidelines were adopted in spirit, if not verbatim, by the American College of Surgeons [21] and the Association of Operating Room Nurses [22]. As a result, all three professional organizations now advocate for the fundamental right of self-determination for competent patients to define and limit what treatment will be provided to them in the operating or procedural suite.

These guidelines set forth two options for a patient with an existing DNR order. The patient could opt for a full attempt at resuscitation, thus suspending any existing DNR directive during the procedure and a defined duration afterward. If, however, the patient decided to reject a full suspension of the existing DNR order, he or she could choose a procedure-oriented, limited attempt at resuscitation and indicate what procedures it would entail. By completing a kind of checklist, patients could designate which specific resuscitative procedures they would permit or reject—for example, chest compressions, defibrillation, tracheal intubation, mechanical ventilation, fluid resuscitation, or cardiovascular drugs.

Nonetheless, while offering the advantage of avoiding some ambiguities by precisely describing what resuscitation functions were to be permitted, this procedure-oriented approach failed to address context-dependent preferences or the patient's desired outcome, thus leaving anesthesiologists who followed these guidelines with incomplete information about how to implement the information on the checklist.

Bearing this flaw in mind, and pursuant to a new proposal by Truog, Waisel, and Burns [23], the ASA Committee on Ethics revised the guidelines in 1998 to incorporate a third option: a limited attempt at resuscitation with regard to a patient's goals and values [19]. This new three-pronged guideline permitted the anesthesiologist to consider the patient's goals and values as a guide to decision making with respect to attempts to resuscitate. Patients now could define desired perioperative resuscitation in terms of outcomes rather than procedures, leaving more decisions about specific resuscitative procedures to the anesthesiologist's (and proceduralist's) judgment. The context of a cardiac arrest or hemodynamic deterioration now could play a more significant role in determining the clinician's response. Although this option gave the anesthesiologist an enhanced understanding of the rights of autonomous patients, it concomitantly imposed a pragmatic and ethical requisite upon the anesthesiologist and proceduralist to understand a patient's values and objectives [24, 25].

This third option is, indeed, a challenging ethical responsibility for the typical anesthesiologist, who manifests discomfort and inexperience in discussing issues of death and dying with patients about whom he or she has limited knowledge and with whom only a nascent therapeutic relationship exists. Admittedly, given the production pressures of modern-day practice, it is not an easy task to achieve a level of intimacy, knowledge, loyalty, and trust that would be conducive to a comprehensive understanding of a patient's goals, values, and objectives. Notwithstanding the opportunities presented by this third option, one can question whether a patient's right to self-determination is best honored by a goals-directed process that has the *potential* to introduce, rather than eliminate, ambiguities in decisions about therapeutic interventions [24]. Additionally, there clearly exists a psychological reluctance within the operating room community to invite death into their domain [26], and, as we have seen, a terminally ill patient's request for surgical or other procedures is considered by many to be inconsistent with an existing DNR order.

Yet, despite these concerns, the ethically appropriate preoperative DNR discussion relating to a robust informed consent process is one that achieves, as far as is practical, a fully informed patient decision and consent by clarifying the three options and making them well understood. These patients have highly specific goals and objectives—usually the palliation of distressing symptoms—and would want the benefits of the procedure only when certain burdens, such as a lengthy postoperative intensive care or living with further decline in cognitive or functional capacities, are not placed upon them [25].

To prevent conflicts, not only anesthesiologists but also surgeons and nurses must agree beforehand about how to manage these ethically, psychologically, and emotionally perplexing scenarios.

#### Legal Considerations

The possibility of legal action or investigation always exists when withholding or withdrawing care at the end of a patient's life. However, standard and accepted practices of communication, collaboration, and documentation provide safe harbor when adhering to a properly executed DNR order [27]. On the other hand, unwanted physical intervention constitutes a battery offense, and there are instances of physicians, nurses, and hospitals

having been found culpable when patients have been resuscitated against their wishes ("wrongful life" suits) [27]. Overall, it is most prudent to act ethically by honoring an informed patient's directive.

### Conclusion

Perhaps Truog, in his seminal article's concluding paragraph, best summarizes the ethical need for a robust, interactive, and flexible approach to resuscitation orders that takes into account individual patients' and physicians' perspectives:

Ethical analysis rarely provides concrete solutions to complex medical problems. At best, it clarifies the relevant issues and delineates areas of conflict.... Traditional medical practice...respond[s] individually and compassionately to the unique needs of each patient. Policies are designed to promote uniformity and generally are not well suited to situations that depend heavily on individual preferences and values. Rigid policies related to the management of DNR orders during anesthesia and surgery would restrict rather than enhance the options of patients and physicians in facing this difficult issue. With the increasing recognition of the autonomy of the competent patient in medical decision making, it would be inappropriate not to seek the patient's guidance and provide as much latitude as possible within the constraints of the physician's own ethical standards [28].

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