
DO NOT RESUSCITATE

DNR
THE ETHICS OF RESUSCITATION

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Many of us view hope as a magic wand—with a wave of that wand we can fix anything. Yet, "hope is viewed through clear eyes and has a profound effect on the chemistry of the brain and workings of the body."[15] When a terminally ill patient goes to the doctor, he or she is looking for hope. Even in dire circumstances, these patients hope for a chance to be cured. With hope, these patients turn to the medical community for guidance to ease their suffering. With hope, these patients trust their physicians to treat them with the dignity and respect every person deserves, even at their time of death.

"A Do Not Resuscitate (DNR) order is written for patients for whom cardiopulmonary resuscitation would be considered futile."[5] The DNR order was developed in the late 1970s, and since its inception, protocols have been written for clearer understanding of its implementation.

"At Columbia HCA Healthcare Corporation, a 22-week-old fetus was delivered by induced labor. Before delivery, the parents had decided, based on the uncertain prognosis for such a premature infant, that they did not want the baby resuscitated, although it is unclear whether this decision was documented. The baby was resuscitated because, in the caregivers' judgments, the baby's condition was adequate for survival.

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The baby survived but required total care. The district court awarded the parents a substantial financial award based on the fact that the hospital and its staff did not follow their directive."[11]

The Court of Appeals in Texas overturned this decision and ruled in favor of the hospital, even though the Texas Natural Death Act, amended as the Advance Directives Act, clearly states parents may withhold life-sustaining treatment from their child, if the child has been certified as terminally ill.[11]

In another case, an 82-year-old man was resuscitated after initiating a DNR order. Shortly after, he suffered a stroke and became partially paralyzed. He was discharged to the care of his daughter and admitted to a nursing home. Even though the court ruled that treatment without consent was a breach of duty, the court also declared that continued living was not a compensable injury.[11]

When a patient unmistakably limits the medical measures he or she is willing to endure, and a health care provider disregards such instructions, consequences could include the damages arising from any battery inflicted on the patient, as well as licensing sanctions against the health care professional and the medical profession.[11] Even with the incorporation of comprehensive standards of care in practice, controversy and ambiguity remain in the execution of the DNR in the perioperative setting.

Many hospitals have a policy that states DNR orders are automatically suspended during surgery.[5] Acknowledging a patient's right to self-determination by being placed on DNR status in the operating room creates considerable ethical and professional trepidation. On one hand, the patient has the right to refuse treatment. This refusal may sometimes be in conflict with the unwritten perception of saving a life by the surgeons and anesthesia providers who are caring for the patient. The Patient Self-Determination Act (PSDA) was passed in 1990 to allow all patients to make choices and decisions about the type and extent of medical care they receive. The PSDA ensures that hospitals, long-term care facilities and home health agencies receiving Medicare and Medicaid reimbursement recognize living wills and power of attorney for health care as advance directives. This is the right of self-determination guaranteed by the Fourteenth Amendment.[9] (See sidebar.)

Many professionals consider execution of the DNR in the OR as malpractice rather than ethical practice.[2] This stems from the fear of legal liability for correctable incidents and the fact that the deaths would be reviewed by hospital morbidity and mortality committees.[2] This could be paramount to negative influence on their professional reputation. The American Society of Anesthesiologists (ASA) has published guidelines suggesting the re-evaluation of DNR orders

THE PATIENT SELF-DETERMINATION ACT

The Patient Self-Determination Act (PSDA), passed in 1990, requires medical care facilities that receive Medicare and Medicaid payments to inform patients of their right to choose the type and extent of their medical care and to provide patients with information about living wills and power of attorney. Specifically, the PSDA requires the following from heath care facilities (including hospitals, nursing homes, home health agencies, hospice programs, and HMOs):

- Provide written information to patients about their rights to make decisions about their treatment through advance directives. A representative from the health care facility should also explain its own policy regarding advance directives. If a portion of the patient's advance directives violate the policies of the facility, the patient must be advised of which of their directives will not be followed.[9,16]
- Ensure compliance with state law. The information offered to patients and written policies and procedures should take into account the laws and court decisions of the state.[9,16]
- Maintain written policies and procedures regarding advance directives. And educate employees and the local communities about laws in the state governing advance directives. Effective implementation of advance directives will be easier for all parties involved if personnel are trained in advance and familiar with hospital policies.[16]
- Document the existence of or lack of an advance directive in the patient's medical record.[9,16]
- Do not discriminate in the type or quality of care provided based on whether or not the individual has executed an advance directive.[9,16]

ADVANCE DIRECTIVES

An advance directive is a general term that refers to one of two legal documents used to speak for the patient in the event that they cannot make decisions for themselves. Those two legal documents are 1) a living will or 2) the durable power of attorney.

A living will must be properly witnessed by a notary, and allows the patient to state, in writing, that they do not wish to be kept alive by artificial means or heroic measures. Patients should discuss their living wills with their doctors and legal counsel to identify and understand the terms—such as code status, artificial means, and heroic measures—used in their living wills.

Creating durable power of attorney is a legal way to appoint a health care proxy who will make medical decisions for the patient in the event that he or she cannot do so. This person should be aware of the patient's specific wishes for treatment and be familiar with any religious considerations that the patient wants to have taken into account.[9,16]

Each state has its own laws concerning advance directives, which can vary widely. A living will or durable power of attorney signed in one state may not be recognized in another. Traveling technologists should be aware of the specifics of the state law in which they're practicing. State specific documents can be obtained through the state's health department. Advance directive documents are also available at no charge through the Partnership for Caring, 800-989-9455, or ***www.partnershipforcaring.org/Advance/documents_set.html***.

Additional information

- A Patient's Bill of Rights is available on the American Hospital Association web site: ***www.hospitalconnect.com/aha/about/pbillofrights.html***
- The Partnership for Caring, a nonprofit educational organization, provides a wealth of information on setting up and following advance directives. Visit their web site at ***www.partnershipforcaring.org*** or call 1-800-989-WILL for information.

prior to the patient coming to the OR.[1] The ASA's documented guidelines include a goal-directed approach to perioperative DNR orders. Caregivers should discuss with the patient his or her preference for resuscitation on three levels:

1) Quantitative and qualitative outcomes. This involves the qualitative characteristics of those outcomes and their meaning to the patient and the burden of reaching the various patient-desired outcomes. The patient needs to be given realistic expectations for any outcome, and the caregiver needs to be honest as to what quality of life the patient can expect postoperatively. If a patient does not want to be on a ventilator long term, is his or her physician aware of this?
2) Operating room caregivers. This includes the surgeon and anesthesiologist who should act as fiduciary representatives with expert knowledge to determine if any continued therapy would be consistent with the patient's wishes.
3) Evidence-based practice. Patients who wish to retain their DNR orders may choose to request "resuscitative efforts during surgery and in the postoperative care unit only if the adverse events are believed to be both temporary and reversible in the clinical judgment of the attending anesthesiologists and surgeons."[1]

The ASA Guidelines limit possible discrepancies that sometimes arise with procedure directed orders. This approach allows for care of the patient to be more idiosyncratic to the patient's wishes, because the success of the therapies can be tested and not predicted. This also allows for the option of withdrawing care in the postoperative setting, if continued care is unlikely to achieve an expected beneficial result.[1]

Rescinding the DNR in the OR is an ill-defined area of patient care in which there fails to be continuity in the scope of practice. One would presuppose that with education, improved policies and the creation of perioperative DNR forms, greater overall acceptance and documented use of perioperative DNR orders would exist.[1] However, resistance to the perioperative re-evaluation of DNR orders remains for several reasons. Foremost, many anesthesiologists and surgeons have personal beliefs that bind them to continue a treatment once it has begun. Anesthesia involves the deliberate depression of vital systems, followed by their resuscitation that may include the need for mechanical ventilation.[5] Also, general internists and geriatricians who practice in tertiary care settings are more familiar with life-sustaining treatment than palliative medicine.[7] To discontinue treatment would be a breach of an implied contract or a conviction that they have personally failed in their fiduciary responsibilities to a patient.

These views are substantial when considered with the idea that anesthesiologists are still likely to be sued if they permit a patient with a well-documented perioperative DNR order to die.[1] There are more perceived reasons than not to suspend DNR orders in the OR. It is critical that the patient understand the implications of both. Respect for patient autonomy is the most important reason to ensure the patient has a full understanding of rescinding the DNR.[5]

The ASA suggests that anesthesiologists may agree in theory with perioperative re-evaluation of the DNR, but find it very difficult to put into practice. First, hospital policies may not clarify the patient's right to refuse treatment, nor do they provide a practical apparatus for re-evaluation and proper documentation. Secondly, as DNR occurrence is not a daily event, the anesthesiologist may lack expertise in this area of care. Novice anesthesia providers may find it difficult to think past the concept that anesthesia causes physiological instabilities that are routinely corrected to the point that anesthesia care stops and resuscitation begins.[1] Physiologically maintaining a patient during a procedure is often necessary, as anesthesia changes a patient's blood pressure, circulation and level of consciousness.[8] The point when resuscitation becomes extraordinary care is never clear, because events that lead to an intraoperative arrest often resemble actions that occur in the course of routine anesthesia.[4] The

burden of this decision rests on the anesthesiologist, who may not have established a relationship with the patient due to constraints. Lastly, the pressures of production, decreased turnover time, and lack of time to hold necessary discussions with the patient or surrogate may also lend itself to rendering well-written policies ineffective in everyday practice.

One way to address this ethical dilemma, suggestive of compromise, is to provide resuscitation in the operating room for cardiopulmonary arrests due to anesthesia, but not those for the underlying disease. When the caregiver must begin chest compressions or defibrillate a patient, it is tacit that care has moved from reversing the complications of an intervention to performing cardiopulmonary resuscitation (CPR).

Cardiopulmonary resuscitation was instituted in the 1960s and quickly disseminated through cardiac arrest teams and coronary care units. CPR was initially developed to reverse sudden death in otherwise healthy individuals; however, it became more widely used in chronically ill hospitalized patients. CPR has become the standard of care, unless the patient or surrogate explicitly refuses it.[7] In 1986, the National Academy of Science (NAS) endorsed "respect for patient authority" in decisions regarding CPR and the initiation of a DNR status. According to the American Society of PeriAnesthesia Nurses (ASPAN), an "estimated 15% of surgical patients have an active do-not-resuscitate or do-not-intubate clause that reflects the elderly or chronically ill patient's preference for a 'dignified death' without artificial life support."[10]

Although great disagreement remains over the ethical answer for patients with DNR orders in the operating room, little information is available on the outcomes of patients with DNR orders who undergo surgeries, especially those who require perioperative resuscitation.[12] To evaluate whether patients with DNR orders were less likely to undergo operations, and to illustrate the characteristics, preferences and outcomes of patients with DNR orders who underwent surgery, a study was conducted on seriously ill patients at five hospitals.[12] The study involved adult patients admitted to five acute care hospitals who agreed to participate in Phase I of the Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT) between June 1989 and June 1991.[12]

Patients who met the predetermined criteria had the following diagnoses: acute respiratory failure, exacerbation of chronic obstructive pulmonary disease, exacerbation of congestive heart failure, end-stage liver disease, nontraumatic coma, nonsmall cell lung carcinoma stage III or IV, metastatic colon carcinoma, or multiple organ system failure with sepsis or malignancy.[12] The expected six month mortality for the patient group at the beginning of the study was 50%.[12] Patients were excluded: if they died or were discharged within 48 hours of admission, were expected to have a hospital stay of three days or less, had AIDS, head trauma, were pregnant, or did not speak English.[12]

PATIENTS SHOULD DISCUSS THEIR LIVING WILLS WITH THEIR DOCTORS AND LEGAL COUNSEL TO IDENTIFY AND UNDERSTAND THE TERMS—SUCH AS CODE STATUS, ARTIFICIAL MEANS, AND HEROIC MEASURES—USED IN THEIR LIVING WILLS.

The intention of the study was to predict patients' outcomes and to illustrate their decision-making abilities.[12] Patients and surrogate decision makers were interviewed after enrollment in the study concerning the patient's functional status and their general preference regarding aggressiveness of care. Patients were asked, "If you had to make a choice at this time, would you prefer a course of treatment that focus-

TABLE 1 **Guidelines for perioperative do-not-resuscitate (DNR) policies**

Reevaluation requirements	Patients with DNR orders may be appropriate candidates for anesthesia and surgery, especially for procedures intended to facilitate care or relieve pain. The etiologies and outcomes of cardiac arrest during anesthesia are sufficiently different from those in nonsurgical settings that reevaluation of the DNR is necessary.
Delineating responsibilities for reevaluating the DNR order	The anesthesia provider, in conjunction with the patient's other physicians, is responsible for discussing these issues with the patient and/or family in reassessing the patients DNR status, and for communicating the decision to those who will be involved with the patient's care during the intraoperative and immediate postoperative period.
Provision of options Agreement with the patient and/or family on one of the following options may meet the needs of most patients with DNR status who require anesthesia and surgery.	• *Full Resuscitation.* The patient desires that full resuscitation measures be employed during surgery and in the PACU, regardless of clinical situation. • *Goal Directed.* The patient desires resuscitative efforts during surgery and in the PACU only if the adverse clinical events are believed to be both temporary and reversible, in the clinical judgment of the attending anesthesiologists and surgeons. This option requires the patient and/or surrogate to trust the judgment of the anesthesia provider and other care givers to use resuscitative interventions judiciously, based on their understanding of the patient's values and goals of treatment. • *Procedure Directed.* The patient desires that full resuscitative measures be employed, with the exception of certain specific procedures, such as chest compressions or electrical cardio version. However, certain procedures are essential to providing the anesthetic care (such as airway management and intravenous fluids). Refusal of these procedures would not be consistent with a request in the progress notes. • *Additional options.* One of the options outlined above, or any other if appropriate, should be documented in the progress notes.
Documentation requirements	Documentation must include both an entry in the progress notes as well as an order in the physician's orders. An attending physician, whether utilizing the standardized form or a narrative format, must sign the physician's orders. Documentation in the progress notes should include the following and be written or cosigned by the attending physician: • The decision-making process which has been and will be followed • The role of professional staff involvement • Role of patient, family, and other decision makers • Data on which the decision is to be based
Time limitations for DNR orders	The original DNR order should be reinstituted at the time the patient leaves the care of the anesthesia provider (on transfer out of the OR or PACU) unless documented otherwise.
Special considerations	• *Caregivers right to withdraw from the patient's care.* If the patient elects to have the DNR order remain in effect during anesthesia and surgery, physicians and other caregivers have the option of declining to participate in the surgery. • *Role of iatrogenic disease.* Iatrogenic causes of arrest do not deserve any special consideration. Caregivers should not override patients' decisions about resuscitation, unless they have specifically addressed these issues with the patient and the patient authorizes such interventions. • *Pediatric perioperative DNR orders.* Pediatric patients should have their DNR orders reevaluated for the perioperative period. Decision making for pediatric patients is a complex area that is beyond the scope of this document. Caregivers should seek guidance from more knowledgeable clinicians, ethical and legal consultants or other policies.
Resources available for assistance	Caregivers may believe that ethical or legal consultation may be necessary or might prove helpful, particularly when there is a lack of consensus about whether to resuscitate. The following resources are available: • Ethics Consultations (provide mechanism of contact) • Hospital Office of General Counsel (provide mechanism of contact)

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es on extending life as much as possible, even if it means having more pain and discomfort, or would you want a plan of care that focuses on relieving pain and discomfort as much as possible, even if that means not living as long?"[12]

As stated in the study:

"The results concluded that of the 4,301 patients enrolled in the study, 1,251 were considered for surgery and 745 (60%) had surgery performed. Of the patients undergoing surgery, 10% had DNR orders recorded on their chart. Of those patients considered for surgery who had DNR orders, 48% received surgery (57 patients).[12] The 57 patients who had a DNR order prior to surgery had a mean age of 66 (range of 19 to 86 years) and 54% were male. These patients had the following diagnoses: acute respiratory failure (32%), exacerbation of chronic obstructive pulmonary disease (9%), exacerbation of congestive heart failure (4%), end stage liver disease (2%), non-traumatic coma (8%), non-small cell lung carcinoma stage III or IV (9%), metastatic colon carcinoma (12%), multiple organ system failure with sepsis (7%) or multiple organ system failure with malignancy (21%).[12] A wide variety of procedures was performed, with tracheostomies being the most common."[12]

"Of the 57 patients who had DNR orders prior to surgery, 10 had documentation in the medical chart that the orders were to be disregarded (18%): nine had the DNR order reversed preoperatively, and one had a note indicating that resuscitation was to be used, but the order was not reversed. Three patients experienced an intraoperative cardiopulmonary arrest (5%); two received resuscitation (one had a note and the other an order to reverse the DNR preoperatively), and one patient whose DNR order was not reversed, died without resuscitation. Two other patients received resuscitation during their hospitalization: one patient was resuscitated seven days after surgery, the second 70 days after surgery. The DNR order was never reinstated for these two patients."[12]

"Of the 57 patients, 13 died within one week of the surgery (23%). Two of these patients received intraoperative resuscitation; death occurred one day post-op, the second death happened on the fifth day after surgery. Of the 11 patients who died without resuscitation, one patient died intraoperatively, and nine patients had died by postoperative day seven. One patient was discharged and died within one week of the surgery. Nine patients died between one and two weeks postoperatively (6%), and eight between two and four weeks postoperatively (14%)."[12]

"Of the 57 patients who had DNR orders prior to surgery, 31 survived to leave the hospital (54%). None of the four patients resuscitated intra- or postoperatively survived to leave the hospital; 44% of the patients survived two months or more postoperatively, and 30% survived at least four months."[12]

One way to address this ethical dilemma, suggestive of compromise, is to provide resuscitation in the operating room for cardiopulmonary arrests due to anesthesia, but not those for the underlying disease.

The authors of the study identified five harms as a consequence of resuscitation.[13] The first harm is unnecessary resuscitation when the patient's condition does not justify it. This harm could include ineffective actions. The second harm is when the patient's condition is too far advanced, and resuscitation is unsuccessful. The patient may be too ill for the resuscitation to have the desired effect. If this ensues, the harm to the patient might include physical discomfort, loss of dignity, delayed death and survival with an unacceptable quality of life. Harm to the family might include unfulfilled hope, loss of control of a loved one's destiny, a cost of lost earnings

while at the bedside and the cost of supporting a disabled survivor.[13] The third harm of resuscitation is if it provides no beneficence because it prolongs a poor quality of life. If the quality of life is unacceptable to the patient or family, then an apparent and appalling harm has ensued. The fourth harm of resuscitation is the redirection of resources from alternative health care activities that may bring greater benefit to other patients. Resuscitation is a significant use of scarce resources.[13] The fifth harm is if it is unwelcome by the patient. A valid DNR order written by the patient must be considered in keeping with the principle of respect for patients' rights. To resuscitate without regard for the patient's explicit wish is a harmful disrespect for the patient's autonomy.[13]

A hospital-wide policy that automatically suspends all DNR orders in the OR does not address a patient's right to self determination.

A hospital-wide policy that automatically suspends all DNR orders in the OR does not address a patient's right to self determination.[13] Surgeons should include patients and surrogates in the decision-making process when there is reconsideration of the DNR order in the OR. The American Medical Association (AMA) has established principles of medical ethical standards that advise physicians to "provide complete medical service with compassion and respect for human dignity."[13]

The American College of Surgeons (ACS) issued a statement in 1994 stating that surgeons must take the lead role in guiding patients and the surgical team through this preoperative aspect of care. It is essential for patients to understand that surgery and anesthesia management may create the potential for correctable cardiac arrest.

Patients should also be aware that many actions associated with resuscitation (eg intubations, ventilation, medication) are a routine component of anesthesia care. The DNR order must be reevaluated before surgery to allow patients to reconsider the parameters of their advance directive and make an informed decision based on their values.

An AORN position statement from 1995 supports the ACS recommendation. AORN notes that "a patient's rights do not stop at the entrance to the operating room. Automatically suspending a DNR order during surgery undermines a patient's right to self determination."[13]

Conclusion

Ethicists have well-versed suggestions for policy development in hospitals regarding CPR that include shared decision making, respect for patient autonomy and contemplation of proportionate benefits and burdens.[7] [Table 1]. If the risks and benefits of surgical procedures and anesthesia are fully explained to the patient, as they should be, then there is a moral obligation to respect the decision for a patient to be DNR in the OR if they so choose. The role of every health care provider is "First Do No Harm." According to the Hippocratic Oath, health care providers should help the sick; not necessarily cure them.[5] Helping the sick may entail allowing death to occur naturally. "Death is the outcome of every life, therefore, death should not be considered a failure."[5]

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