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Resuscitation Decisions

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**CENTER FOR BIOETHICS
UNIVERSITY OF MINNESOTA**

**READING PACKET ON
RESUSCITATION DECISIONS**

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OVERVIEW OF RESUSCITATION DECISIONS

Cardiopulmonary resuscitation (CPR) is an intervention developed in the field of emergency medicine to restore circulatory and respiratory functioning in a person who has experienced cardiac or respiratory arrest. CPR incorporates a spectrum of procedures ranging from basic life support measures such as mouth-to-mouth ventilation and “closed chest” compression administered by a “rescuer” to advanced cardiac life support techniques, including electrical defibrillation, open-chest cardiac massage, or the use of pharmaceuticals administered by a team of health care professionals in a hospital setting. When it was originally introduced, CPR was designed to resuscitate victims of drowning, electrocution, drug overdose and other accidents as well as acute myocardial infarction (heart attack). During the 1960s and 1970s the use of CPR expanded beyond the field of emergency medicine, and became the standard of care for virtually *all* dying patients.¹ More recently, however, questions have arisen about the appropriateness of CPR for patients who are “rescued from death” only to prolong the process of dying, or who survive the immediate threat of cardiopulmonary failure but suffer from neuro-cognitive problems ranging from mild intellectual impairments to a permanent vegetative state.

USE AND EFFECTIVENESS OF CPR

Since cardiopulmonary arrest commonly occurs in the final stages of the dying process, almost every dying person can be viewed as a potential candidate for CPR. In our modern society, death most often occurs in a hospital setting, and CPR is attempted for about one-third of the 2 million hospital patients in the U.S. who die each year. More than 50% of these hospital patients receiving CPR are 65 or older, and more than 70% are male.² Data on the actual incidence of resuscitative attempts in nursing homes or by emergency ambulance teams does not support broad generalizations, but the partial evidence which is available indicates that, in comparison with hospitalized patients, such attempts are much less frequent among nursing home populations,³ and much more frequent among patients attended by emergency medical services.

When CPR attempts prove successful, the patient's heartbeat and breathing are restored, and patients may be able to resume their previous lifestyles. Often, however, CPR restores these basic life functions but leaves the patient brain-damaged or otherwise impaired. For example, the patient might require continuous monitoring and medication to compensate for an abnormal heart rhythm, and might also remain critically ill due to serious underlying disease with a substantial risk that cardiac arrest will recur. Studies of the outcome of resuscitation attempts have shown a wide range of variation but, on average, approximately one third of in-hospital CPR

attempts succeed in restoring heartbeat and breathing. Yet only 10-15% of patients who undergo CPR following cardiac arrest in the hospital survive to be discharged.⁴ Long-term survival has not been extensively studied, but in one investigation, nearly 60% of the patients who were discharged from the hospital following CPR were still alive after 2 years.⁵ Because of the poor outcomes for so many patients, however, it is now generally recognized that CPR is not an appropriate treatment for every patient suffering cardiac or respiratory arrest.

Whether age is an important determinant of long-term survival after CPR is unclear, with studies giving conflicting results on the question of whether there is a significantly reduced chance of surviving to discharge after CPR for patients who are aged 70 or older.⁶ In light of the uncertainty surrounding this question, a patient's age might affect the decision to administer CPR, but once that decision is made, the procedures employed are the same regardless of age, and little is done to reduce any additional risks. Based on an extensive review of CPR in the elderly, the federal Office of Technology Assessment (OTA) concluded that "although age-associated factors (e.g., rheumatoid arthritis, pneumonia, acute stroke) may complicate resuscitative procedures for some elderly patients, impede monitoring of their response to treatment, and increase the risk of resuscitation-related injuries, there is no evidence that CPR is performed differently on elderly people than on younger people. Many of the procedures must be applied in full force in order for maximum benefit to be achieved."⁷ Still, the OTA study concluded that, in general, age is not a reliable predictor of long-term CPR outcome.

DO-NOT-RESUSCITATE ORDERS

In response to the growing recognition that resuscitation is not appropriate for all patients, the do-not-resuscitate (DNR) order was developed. DNR orders indicate to medical professionals that they are to withhold CPR in the event that a patient experiences cardiac or respiratory arrest. In theory, a DNR order is precise and narrow. Many experts contend that such orders are fully compatible with aggressive medical care and should not be understood to imply that life-sustaining treatments other than CPR, such as oxygen or IV fluids, should be withheld or withdrawn.⁸ In clinical practice, however, DNR orders have often been associated with withholding or withdrawing life-sustaining therapies other than CPR, resulting in the provision of substantially less intensive care.⁹ In one study, for example, patients with a DNR designation were found to be significantly less likely to receive expensive or invasive medical interventions than other patients suffering from the same or comparable medical conditions.¹⁰

Variations in the type of treatments provided to these patients frequently stem from the DNR orders' lack of specificity regarding what interventions to withhold. Many commentators argue that a DNR order should specify

whether electrical defibrillation, anti-arrhythmic drugs, open-chest cardiac massage, temporary pacemakers, or any other CPR measures are to be withheld. Others have suggested that confusion about the scope of such orders might be mitigated by using an alternative designation such as "Do-Not-Attempt-Resuscitation" (DNAR) or the more specific "No-CPR" to indicate more precisely the intent of an order to withhold resuscitative procedures.¹¹ To further reduce ambiguity and vagueness, DNR orders should be explicitly incorporated into an overall treatment plan which addresses other interventions besides traditional CPR. This would help to alleviate fears that patients with a DNR status will, in effect, be abandoned by health care professionals.

Many also argue that the rationale for a DNR order and the process by which it is formulated should be carefully documented.¹² As one commentator notes, "[a] written record of who made the decision and its rationale increases communication, discussion, and review of DNR orders – as opposed to the suspicion, uncertainty, doubt, and anger that accompany vague and anonymous DNR decisions."¹³ Others have argued, however, that because of the inherent unpredictability of events during a hospitalization, not all possible scenarios can be addressed beforehand; specifying which treatments should or should not be provided when a DNR order is in place still will not address questions about potential treatments that are not mentioned in the order.¹⁴ Thus we cannot expect procedural solutions to eliminate all the uncertainty about appropriate treatments that might arise in connection with resuscitation decisions.

RATIONALES FOR DNR ORDERS

Because of the pressing time constraints confronted in emergency medicine, it is not always possible for health care professionals to explain the costs and benefits of treatment options and secure consent prior to initiating life-saving interventions. The need for immediate intervention if emergency procedures are to be effective has resulted in a *presumption of consent* for resuscitation. This reflects the traditional ethical presumption favoring the preservation of life, and the corresponding legal presumption assumes patient consent to emergency treatment. Accordingly, CPR is routinely initiated, while a DNR order is generally necessary to override the presumption in favor of administering CPR. In this respect, CPR is an exceptional therapy when compared to virtually all other medical treatments – rather than requiring consent for treatment, consent *not* to be resuscitated is the norm. Two justifications for a DNR order have been recognized: first, a patient or a proxy decision maker may decide in advance of cardiac arrest to forgo CPR by consenting to a DNR order; and second, the treating physician may withhold CPR on the basis of a judgment that it would be futile because it would provide no medical benefit.

Consent to a DNR Order

Respect for patient autonomy, or the right of patients to make decisions about their own medical treatment, is a well established principle of ethics and law in medicine. This principle lends support to the moral and legal right to consent to or refuse any medical intervention, including all forms of life-saving treatments. A patient with decision making capacity, therefore, may express in advance her or his preference about whether to withhold CPR in the event of a cardiac arrest. For patients who lack decision making capacity, a decision to withhold CPR can be made by a surrogate or proxy decision maker, based on the previously expressed preferences of the patient or, if such preferences are not known, in accordance with the patient's best interests.¹⁵

Such a decision by a patient or the patient's surrogate to refuse CPR may serve as the basis for a DNR order. This rationale for a DNR order is well accepted within medicine as well as the law. The few reported legal cases involving DNR orders have all concluded that CPR may be forgone in certain circumstances.¹⁶ The conscientious use of advance medical directives in the form of living wills or durable powers of attorney could enable patients to retain some control over such decisions, but the mere presence of a living will should not be taken as an indication of a preference for a DNR order.¹⁷ Public awareness of the possibility of advance planning has grown since the passage by Congress of the Patient Self Determination Act (PSDA).¹⁸

Whenever it is possible, patients or their surrogates should be involved in the decision to undergo CPR or to request a DNR order. Yet there are many barriers preventing physicians from engaging in meaningful conversations about patient preferences for resuscitation.¹⁹ Numerous studies have shown the reluctance of physicians to raise the question of resuscitation with their patients, in part because of concern that doing so would lead patients to believe their condition is worse than it really is, or that their caregivers had given up on them. Patients may hesitate to raise questions because they feel this is the responsibility of their physicians, or because they do not want to interrupt their physicians' busy schedules. In practice, patients and their surrogates are not routinely consulted about their wishes regarding CPR. And when they are consulted, it is more likely to involve decisions not to resuscitate than decisions to resuscitate,²⁰ possibly because of the presumption in favor of always providing CPR.

Despite such challenges in practice, there is general acknowledgment that health care professionals should discuss CPR and the option of a DNR order whenever the patient or surrogate wishes to do so, or whenever one of the following situations obtains:

1. There is some reason to question the presumption of consent to CPR;
2. The patient is terminally ill;

3. The patient has a severe or irreversible illness or disabling condition;
4. The patient has suffered an irreversible loss of consciousness; or
5. The patient is reasonably likely to suffer cardiac or respiratory arrest.²¹

Some commentators suggest that a patient's preferences regarding CPR should be obtained early, well before incapacitating illness. This might be done at the time of admission to a hospital or nursing home. According to the Stanford University ethics committee, for example, "since cardiopulmonary arrest is likely to occur during the hospitalization of an elderly, chronically ill, or terminally ill person, there is little ethical justification for not discussing it in advance."²² However, others argue that to routinely engage in such discussions would be impractical or impossible and may even provoke unnecessary anxiety among patients for whom avoidance of explicit planning for their own deaths is a self-protective device.²³

Futility

The second rationale for a DNR order remains controversial. According to some commentators, even if a patient has not refused CPR, resuscitation should not be attempted if there is reason to believe that the intervention will confer no medical benefit and thus will be futile. The term "futility" here is used narrowly to refer to the probability of restoring cardiac and respiratory function to a patient experiencing cardiac arrest. From this perspective, CPR would be futile in the absence of a reasonable potential of restoring these vital functions.²⁴ This means that CPR is inappropriate if it "will probably fail, or, at best, will succeed only to the extent that the patient will be subjected to intensive and repeated resuscitation before death inevitably occurs."²⁵

According to Tomlinson and Brody, "when resuscitation offers no medical benefit, the physician can make a reasoned determination that a DNR order should be written without any knowledge of the patient's values in the matter. The decision that CPR is unjustified because it is futile is a judgment that falls entirely within the physician's technical expertise."²⁶ Another observer argues for a policy allowing "the health care team to unilaterally decide not to resuscitate institutionalized patients ... who have no chance of recovering from CPR initiated in a [long-term care] institution."²⁷ Others note, however, that uncertainties about the prognosis for patients who have been resuscitated make it difficult to identify those for whom CPR would be medically futile.²⁸

"Futility" has also been used to refer to medical interventions that are not likely to achieve the benefits desired by the patient. Such benefits may include, for example, an acceptable quality of life, a "meaningful existence," or survival for a specified period of time. This notion of futility replaces a

technical medical assessment of the potential for restoring cardiopulmonary function with a judgment of the potential of CPR for achieving benefits that are of value to the patient. With the broader understanding of "futility," a determination that resuscitation is futile should not rest on the unilateral assessment of physicians. Rather, "these judgments of futility are appropriate only if the patient is the one to determine what is or is not of benefit, in keeping with his or her personal values and priorities."²⁹ When the question is whether CPR is futile in this broader sense, caregivers should not exclude family members and patients from the decision to issue a DNR order and should not substitute their values for those of the patient "under the guise of medical expertise."³⁰

Finally, some have employed the notion of futility in an even broader sense, to limit treatments that are judged not to be cost-effective.³¹ The most serious problem with linking the notion of futility to considerations of cost containment is that it fundamentally alters the grounds for caregivers' authority in judging certain interventions to be futile.³² Authority would no longer be exercised either on behalf of the moral integrity of the medical profession or in the pursuit of benefits for the individual patient – but would instead represent an exercise in social agency directed to the welfare of a broader community. Although community interests surely must constrain the practice of medicine, health care professionals should acknowledge that they have no special expertise in discerning what those interests are or in determining how best to serve them.

SPECIFIC ISSUES FOR RESUSCITATION DECISIONS

DNR Orders in the OR

Some patients with DNR orders become candidates for surgical procedures which can provide significant benefits even though the conditions which prompted the refusal of CPR are not fundamentally altered. For example, patients with advanced cancers might undergo surgery to correct intestinal obstructions or to alleviate pain. The surgical procedures and accompanying sedation or anesthesia can expose such patients to new and potentially correctable risks of cardiopulmonary arrest. In addition, some of the same procedures employed in resuscitation, such as mechanical ventilation or vasoactive drugs, are integral parts of anesthetic management. The question thus arises how DNR orders should be handled for such patients. Should a DNR order be rescinded just before surgery and reinstated afterwards, or should it remain in effect throughout surgery? As one physician has noted, if DNR orders are revoked during surgery, "the DNR patient is put in the difficult position of having to weigh the benefits of palliative surgery against the risks of unwanted resuscitation." On the other hand, if DNR orders are honored during surgery, "surgeons and anesthesiologists may feel unacceptably restrained from correcting complications for which they feel responsible."³³

Instead of policies that would either prohibit intraoperative DNR orders or require that all such orders be honored, it has been suggested that a policy of “required reconsideration” would be more flexible and more in keeping with the value of patient autonomy.³⁴ Such an approach would require physicians to discuss with patients before surgery the likelihood that the patient will require CPR during surgery or during the perioperative period, to describe the CPR measures which would be required, estimate the chance of success, and review the possible outcomes with or without CPR. If the patient wants the DNR order honored during surgery, it should be noted on the preoperative order form.³⁵

Prehospital DNR Orders

Emergency medical systems (EMS) personnel in most jurisdictions are required by law to attempt to resuscitate all patients unless there are obvious signs of death such as decapitation, rigor mortis or decomposition. Moreover, in most states, EMS personnel, who usually are neither nurses nor doctors, are not authorized to pronounce patients dead, and so must continue resuscitation efforts until a physician can determine that death has occurred. The options of EMS personnel are therefore very limited, leading to "situations where intensive critical care procedures [including CPR] must be used, by protocol, on out-of-hospital patients *in extremis* or in cardiac arrest any time the ambulance service is activated."³⁶

In an attempt to honor the wishes of patients who do not wish to be resuscitated, a number of states have adopted some form of prehospital DNR policy.³⁷ Honoring prehospital DNR orders presents a number of unique problems, the most pressing of which is how to identify patients who should not be resuscitated. There is still considerable confusion about the difference between DNR orders and living wills, and since in most states living wills are not in force unless a patient is terminally ill, EMS personnel cannot withhold resuscitation unless presented with a valid DNR order. In some communities, a standard form is employed for this purpose, and records are maintained by the local EMS; in others, patients wear special bracelets or carry identification cards – but in the chaos surrounding an emergency call these methods of identification are not always effective. An additional source of confusion arises from the fact that the documentation required varies between communities. A second problem area is how to make prehospital DNR orders specific enough to adequately reflect patient preferences. If prehospital DNR orders do not indicate precisely what interventions are covered, some patients will be forced to forgo desired treatments in order to avoid resuscitation, or else suffer unwanted resuscitation in order to receive other kinds of treatment.³⁸ Finally, there is disagreement about whether EMS personnel should be authorized to declare patients dead in the prehospital setting and discontinue resuscitation efforts. This would allow

EMS teams to serve the needs of others who could benefit from emergency care, and decrease the risks associated with high speed transport of patients to hospital emergency departments.³⁹

Slow Codes

Physicians sometimes verbally direct a "slow" code in which perfunctory CPR is performed in order to create the impression that "everything is being done" for the patient. This often occurs when family members are unwilling to accept impending death, and so will not give consent for a DNR order. The overwhelming consensus is that "'[s]low codes' or 'slow codes' – appearing to provide CPR while not doing so, or doing so in a way that is known to be ineffective – compromise the ethical integrity of health care professionals and should be avoided."⁴⁰ Such practices undermine the trust between health care providers and patients as well as the professional integrity of physicians who engage in such subterfuge. While such sham codes are inappropriate, however, they should not be confused with legitimate "limited codes" in which only less invasive measures such as external chest compression are employed rather than the full spectrum of resuscitation measures.⁴¹

Do-Not-Intubate Orders

To intubate means, simply, to insert a tube into a patient's body. Intubation overlaps with, but should not be equated with resuscitation – intubation is required for some medical interventions, such as intravenous feeding, which are not intended to resuscitate patients, but also includes interventions which are part of resuscitation efforts such as mechanical ventilation.

Deciding whether or not to intubate a patient is separable from deciding, for example, whether or not to administer external chest compression. Do-not-resuscitate (DNR) orders can thus be distinguished from do-not-intubate (DNI) orders. This means that DNR orders are not incompatible with intubation – a patient can be intubated and still have DNR status. For example, a patient with a DNR order who suffers from emphysema could be intubated electively before breathing stops. In short, while DNR orders prohibit all forms of resuscitation, DNI orders are compatible with a range of resuscitative efforts short of intubation.

Some object to DNI orders as a specific limitation on CPR that make the success of resuscitation efforts much less likely. DNI orders in some circumstances may thus be similar to "slow codes," compromising the ethical integrity of health care professionals. But when DNI status accurately reflects the preferences of the patient, the implied limitations on resuscitation are appropriate and justifiable.

RECOMMENDATIONS FOR DNR ORDERS

Many ethical commentators have proposed, and the Joint Commission for the Accreditation of Healthcare Organizations now requires, that hospitals and nursing homes establish formal resuscitation policies. Institutions formulating DNR policies should incorporate at least the following provisions:⁴²

1. DNR orders should be documented in writing in the patient's medical record.
2. DNR orders should specify the exact nature of the treatment to be withheld.
3. Patients, when they are able, and families or guardians should participate in DNR decisions. Their involvement and wishes should be documented in the medical record.
4. Decisions to withhold CPR must be discussed with all staff who interact with the patient.
5. DNR status should be reviewed on a regular basis.
6. DNR is not equivalent to medical or psychological abandonment of patients – a distinction which staff must understand and of which patients must be continually reassured.⁴³

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UNFOLDING ISSUES

Should the presumption in favor of resuscitation be re-examined?

Should policies be instituted requiring that CPR and the option of DNR be discussed with all patients when they are admitted to a hospital or nursing home?

Should physicians be permitted to write a DNR order unilaterally – without consulting the patient or surrogate – if the chance of successful resuscitation is negligible, i.e., when CPR does not have a reasonable potential of restoring vital functions?

Should unilateral decisions be permitted for patients who are severely demented?

Should third-party payors be allowed to refuse payment for resuscitation for patients for whom CPR was anticipated to be futile?

Should a DNR patient be resuscitated if the cardiopulmonary arrest is the direct result of medical interventions, e.g., surgery, dialysis, or electroconvulsive treatments?

Should the requests of patients/families "to do everything possible" always be honored? Or can requests for futile interventions be ethically or legally ignored?

Should DNR codes be made more specific in terms of scope and timing of medical interventions?

Under what circumstances, if any, are DNI orders appropriate?

How frequently should DNR orders be reviewed, and who should be responsible for initiating such review?

What rules should govern DNR orders outside the acute care hospital setting?

Should DNR orders be applied in an emergency room or outpatient setting, or by rescue personnel at the scene of an accident?

Should hospices be permitted to refuse admitting terminally ill patients who still wish to be resuscitated?

Is it permissible to conduct research and train residents in the use of resuscitation techniques in hospital emergency rooms without securing the consent of patients?

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