Improving Do-Not-Resuscitate Discussions: A Framework for Physicians

Robert M. Taylor, MD, Jillian L. Gustin, MD, and Sharla M. Wells-DiGregorio, PhD

Having DNR (do-not-resuscitate) discussions with patients and their surrogates is a challenging task for most oncologists. To make such discussions more constructive, we provide a framework that stratifies patients into three general groups: (1) the basically healthy, (2) those with an advanced or chronic illness, and (3) the imminently dying. This framework permits physicians to tailor their discussions to the specific needs of each patient or surrogate and to make recommendations when appropriate.

In discussing DNR orders, physicians struggle with two related challenges. First is how should they frame the discussion so that patients and surrogates understand the medical situation, including the benefits and burdens of their decisions? Second is to what extent is it appropriate to make recommendations? The lack of "best practices" for communicating uncertainty further complicates DNR discussions. Although DNR orders should usually be discussed in the context of a broader conversation about the goals of care and advance care planning, they are sufficiently unique that it is instructive to consider them as a distinct issue.

Using Statistics Wisely

Resuscitation outcomes for in-hospital cardiac arrests have been extensively studied. For the past decade, about 20% of patients who undergo in-hospital resuscitation survive to hospital discharge. However, the National Registry of Cardiopulmonary Resuscitation recently indicated that institutional process improvements may yield better outcomes, suggesting a goal of 38% survival. Some studies have identified subpopulations of patients with very low survival rates, of about 5% to 10%. One study demonstrated that, over a 4-year period, among cancer patients who were resuscitated for cardiac arrest, 22% of the 73 patients whose arrest was unexpected survived to discharge, whereas none of the 171 patients whose arrest was expected survived to discharge. However, patients and surrogates are generally unaware of these statistics, and their expectations are likely to be distorted by what they see on television. For instance, in a 1996 study examining depictions of resuscitation on ER, Chicago Hope, and Rescue 911, 67% of patients survived to hospital discharge.

Based on these statistics, it is reasonable to tell hospitalized patients that if they undergo attempted resuscitation for cardiac arrest, the chance that they will leave the hospital alive is about one in five, although it could possibly approach two in five. However, if they have certain serious illnesses, their chances of surviving to leave the hospital are closer to 1 in 10 or 20; of those who do survive, a significant percentage will have severe neurologic disability requiring chronic nursing home care. Furthermore, if they are imminently dying of cancer or another serious illness and suffer a cardiac arrest, they have essentially no chance of surviving to leave the hospital.

Yet merely quoting statistics to patients and their surrogates and offering them "choices" are not necessarily the best ways to help them make decisions about resuscitation. It is most helpful to use the statistics to explain the medical conditions and probabilities, to relate those probabilities to the patient's values and goals, and, in appropriate situations, to make recommendations. To properly frame the DNR discussion, it is helpful to consider three different medical contexts in which the outcome has varying degrees of uncertainty (Figure 1).

The Basically Healthy

At one end of the spectrum is the otherwise healthy patient who suffers trauma, undergoes a
procedure, or suffers from an acute reversible illness and unexpectedly suffers a cardiac arrest. In such situations, if the patient can successfully be resuscitated, there is an excellent chance he or she will have a good outcome. Because but for the arrest, the patient is not dying, treating the arrest itself (resuscitation) makes perfect sense.

It would be exceedingly rare for such a patient to have a DNR order, and, indeed, few physicians would even raise the question. If such a patient requested a DNR order, it would be essential to assure that the patient was truly informed and neither depressed nor suicidal. Indeed, we would argue, it would be inappropriate to strongly recommend against a DNR order for such a patient while simultaneously engaging in advance care planning (including the completion of a Living Will or Health Care Power of Attorney) to assure that the patient’s wishes are as clear as possible should he or she suffer a poorer-than-expected outcome.

**Those with an Advanced or Chronic Illness**

The middle of the spectrum is the patient who has an advanced or chronic illness—but is not imminently dying—and is admitted with an exacerbation or a superimposed illness and so is at significant risk of death from that acute process. If such a patient has a cardiac arrest, he or she is less likely than an otherwise healthy person to survive to discharge from the hospital and more likely to have his or her overall condition deteriorate as a consequence of the cardiac arrest and resuscitation. Furthermore, even though the cardiac arrest would be the cause of death and therefore treating it (if possible) would be reasonable, even successful resuscitation (in terms of survival) might result in future suffering from the effects of the primary disease or the consequences of resuscitation itself (e.g., severe neurologic disability).

Because each patient in this group will have a different and unpredictable perspective, a DNR discussion is essential. Furthermore, providing each patient or surrogate with the best possible information about the probabilities of good and poor outcomes is necessary to assure the patient makes an informed decision. Finally, for patients who want to undergo full resuscitative efforts, discussions should include advance care planning beyond the question of DNR, to assure that the patient’s wishes are clear in the case of a poor outcome.

**The Imminently Dying**

At the far end of the spectrum is the patient who is imminently dying of an advanced illness, such as stage IV cancer; end-stage heart, lung, or liver disease; or multiorgan system failure. Although it is often difficult to determine the exact moment when a patient crosses the line from seriously ill to imminently dying, once the line is crossed, the imminence of death becomes progressively more apparent to the experienced physician. When the patient dies, the final event will be a cardiac arrest; cardiac arrest is the mechanism of death, not the cause of death. Efforts at resuscitation do nothing to treat the underlying cause of death, which remains inevitable and imminent. For this group of patients, the concept of “allow a natural death” is most applicable.13

Although discussion of DNR orders with such a patient (or surrogate) is mandatory, it should be framed in a way that makes the realities clear while being as gentle and supportive as possible. The goal should be both to inform the patient (or surrogate) and to assure that the best and most appropriate

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**Figure 1** Stratification to Aid Physician Decision-Making Regarding DNR Discussions and Advance Care Planning

<table>
<thead>
<tr>
<th>Medical condition</th>
<th>Healthy patient with acute illness (e.g., trauma, myocardial infarction, surgery)</th>
<th>Acute on chronic or advanced illness/not imminently dying</th>
<th>Imminently dying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected outcome</td>
<td>20%-40% survival; unpredictable risk of neurologic disability</td>
<td>5%-20% survival high risk of neurologic disability</td>
<td>0% survival</td>
</tr>
<tr>
<td>Recommendation (physician's ethical responsibility)</td>
<td>DNR discussion unnecessary; consider advance care planning</td>
<td>DNR discussion essential; facilitate discussion regarding values, goals of care, quality of life</td>
<td>DNR discussion essential: provide information regarding natural death and recommend DNR and comfort care</td>
</tr>
<tr>
<td>Rationale</td>
<td>Resuscitation highly likely to improve survival in otherwise healthy patient</td>
<td>Resuscitation may be successful or lead to a poor outcome (e.g., continued suffering and/or neurologic disability)</td>
<td>Cardiac arrest is the mechanism, not the cause, of death; death is not preventable</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Provide advance care planning and assist with completion of advance directives, in case of future bad outcome</td>
<td>Re-evaluation of DNR and advance care plan at regular intervals, based on evolution of patient’s medical condition</td>
<td>Palliative and supportive care to assist with anticipatory grief and physical, emotional, practical, and spiritual aspects of dying, bereavement care</td>
</tr>
</tbody>
</table>
care is provided at the end of life. It makes no sense to discuss DNR orders with such a patient (or surrogate) as if resuscitation were an appropriate medical therapy. To offer the patient or surrogate the "option" of resuscitation is to create a false impression that death is preventable. Indeed, the illusion of choice —of "electing" a DNR order— when DNR is the only appropriate medical option places an undue burden on surrogates, conveying a sense of responsibility and creating unwarranted feelings of guilt for their loved one's death. In situations where there is only one reasonable approach to medical care, physicians have an obligation to convey their recommendations clearly to a patient or surrogate; this approach does not impose one's values on a patient, rather it fulfills one's professional duties.

When intending to convey a clear and consistent message, it is often helpful for physicians to develop a relatively standardized "script" from which to work. An example of such a "script" follows: "Unfortunately, because we cannot treat your underlying disease, it will soon cause your death. When that happens, your heart will stop beating. Therefore, I would recommend that, when your heart stops, we focus on assuring that you die peacefully and comfortably, rather than using shocks and machines to try to restart your heart. Does that make sense to you?" Although this "script" is easily revised or expanded to better fit the specific circumstances for a given patient, the essential message to be conveyed is that the patient's death is inevitable. In our experience, most patients and surrogates have little difficulty in understanding such an explanation and readily transition to comfort care.

For patients who disagree with this recommendation to forego resuscitation, it is helpful to clarify why they disagree. Do they not believe they are dying? Are they too emotionally overwhelmed to make a decision? Do they want every possible effort made to stave off death, based on their personal, religious, or cultural values? Resuscitation serves as a powerful and complex symbol: the most familiar "death ritual" in our secular, medicalized society. Thus, even if the treating physician is confident that resuscitation will be futile, it may provide the patient or family with the symbolic assurance that the physician did not "give up" on the patient and that he or she died despite every effort being made to save him or her. However, if this symbolic meaning or the emotional distress is explored and addressed compassionately, patients and families often recognize that transitioning to comfort care can provide the most powerful evidence of commitment and care.

**Conclusion**

Stratifying patients into three groups (ranging from basically healthy to having an advanced or chronic illness to imminent death) provides a framework for the discussion of DNR orders. It helps to clarify the relationship between medical considerations and patient values and goals. Furthermore, it may improve patient and surrogate understanding and help physicians to provide guidance, thereby reducing patient and surrogate distress.

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**References**

3. Epstein RM, Aiper BS, Quill TE. Communicating evidence for participatory decision making. JAMA 2004;291:2359–2366.[15150286]