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Organ Donation after Cardiac Death

What Role for Anesthesiologists?

THE practice of non–heart-beating cadaver donation (NHBCD) involves the withdrawal of life support from patients under controlled conditions, with removal of transplantable organs after the patient has been declared dead by cardiac criteria. This approach tempts us with the promise of more transplantable organs while challenging us with a long list of ethical concerns. Dr. Van Norman has done an excellent job of reviewing these issues in detail[1]; I will highlight those that are most pressing and have the greatest relevance for anesthesiologists.

What role should anesthesiologists play in the care of patients enrolled in these protocols when organ recovery occurs in or near the operating room? I believe that transferring the care of a patient from the primary caregivers to an anesthesiologist just before death would not be fair to either the patient or the anesthesiologist. First, this practice would violate one of the primary principles of palliative care medicine, which states that patients deserve continuity of care and consistent caregivers throughout the dying process. Second, most operating room anesthesiologists have neither the background nor the experience required to provide palliative care during the withdrawal of life support.

In addition, patients, families, and society in general assume that anesthesiologists become involved in the care of a patient in order to provide that patient with an anesthetic. This assumption could generate two misconceptions if the care of a dying patient is transferred to an anesthesiologist in the operating room prior to death. First, it could suggest that the patient requires an anesthetic before organ donation because the organs will be removed before the patient is actually dead. Conversely, it could suggest that an anesthetic is necessary to kill the patient before the procurement of organs. By assuring that the primary caregivers, not anesthesiologists, maintain responsibility for the patient's care throughout the dying process, neither of these false and potentially harmful misconceptions will arise.

Given this conclusion, one might say that Van Norman's article should have been titled "Why anesthesiologists don't need to know much about the NHBCD." I would disagree, however, and say that even if anesthesiologists do not play a clinical role in NHBCD protocols, there are other important roles for them to play. Anesthesiologists are often involved in the development of hospital policy—particularly policies that concern the operating room. In this regard, I think that the single most important message that anesthesiologists should take away from Van Norman's article is that NHBCD should never occur in the absence of a prospectively developed protocol. In their enthusiasm for promoting organ transplantation, some hospitals have undertaken NHBCD on a case-by-case basis, dealing with the ethical issues *ad hoc* as they arise. Since virtually every phase of the process poses a full menu of ethical dilemmas, there is perhaps no better example of a new procedure in need of prospective planning and careful implementation. The Institute of Medicine has published detailed guidelines that outline the major policy issues and suggest effective strategies for protocol development.[2,3]

Of all of the ethical issues that must be addressed by these protocols, I believe that concerns about conflicts of interest are perhaps the most worrisome. NHBCD differs from organ donation after the diagnosis of brain death in several ways but most profoundly in the relationship between the death of the patient and the decision of the family to donate his or her organs. Patients are typically diagnosed as brain dead only after all attempts to resuscitate them have failed. The diagnosis of death is therefore cleanly separated from the decision to donate. Indeed, specialists in organ procurement now recommend that clinicians have two separate meetings with families—one to inform the family of the diagnosis of brain death and another to raise the question of organ donation—as a way to emphasize the independence of the diagnosis of death from the decision to donate.

Conversely, with NHBCD, death occurs only after the explicit decision to withdraw life support. This decision is almost always difficult and complex and involves the weighing of multiple value-laden considerations. There are questions about what the patient would have wanted and the vexing issues associated with the use and interpretation of advance directives. Differences of opinion between family members or between the family and the clinicians are frequent and are often difficult to resolve, even with the assistance of ethics committees and other mediators.

Against this complex tapestry of competing and conflicting values and opinions, we are now adding the question of whether the patient should become an organ donor. In recognizing the difficulties that this new option introduces, the University of Pittsburgh initially

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tried to construct a firewall between death and donation, similar to the situation with brain death. The University permitted discussion of NHBCD only if the topic was initially broached by the family and insisted that families be counseled to completely separate the decision to withdraw life support from the decision to donate organs.

The University quickly realized that this approach was unfair and unworkable for multiple reasons. For example, it virtually ensured that only literate and sophisticated families who are aware of cutting-edge developments in medical practice would be knowledgeable about this option. This unacceptably discriminated against those who might have strongly desired to donate but who were unaware of the possibility. For this and other reasons, the University of Pittsburgh now allows clinicians to approach families about donation after the decision to withdraw life support has been made.[4]

I agree with the University of Pittsburgh that families should be aware of all their options when making medical decisions. In some cases, considering the option of NHBCD may require families to make tradeoffs between deciding to withdraw life support earlier—before organ dysfunction has progressed and while the organs are still usable for transplant—*versus* later, when the futility of continued treatment is irrefutable but the organs are no longer transplantable. I believe that there is nothing intrinsically unethical about making these tradeoffs, but they escalate the complexity of decision-making in end-of-life care to a new and unprecedented level. Clinicians need to understand the dynamics at play in these situations and need to use their own moral compass in applying these protocols to assure that the process is respectful of the interests of the patient and the needs of the family.

I conclude with three recommendations grounded in the different roles of anesthesiologists in the hospital and in society.

1. As clinicians, anesthesiologists should rightly insist that the care of patients not be transferred to anesthesiologists in the operating room for withdrawal of life support and organ recovery. This will ensure that patients receive palliative care from continuous care providers and will prevent any misunderstandings regarding the role and purpose of anesthesia in organ procurement.
2. As members of hospital communities, anesthesiologists should be certain that NHBCD is performed according to protocols that are prospectively developed in accordance with the recommendations of the Institute of Medicine.
3. As physician members of the medical community, anesthesiologists should be aware of the major ethical issues posed by this growing approach to organ procurement and should play an active role in ensuring that these protocols preserve the rights of patients and families to a "good death" while maximizing the opportunities for organ donation.

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