FEATURE ARTICLE

Donation after Cardiac Death: A Reply to Bayley and Gallagher

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THE DEAD DONOR RULE is very much alive and well. It has been articulated as a fundamental ethical commitment by every major policy body that has supported DCD—U.S. and Canadian consensus conferences, three separate IOM committees, and several major professional associations.[1] It is true that some ethicists—mostly those who once embraced questionable "higher brain death" criteria and then rejected them in favor of a very conservative concept of death as "cold, stiff and gray"—question the death criteria used in DCD. But most such authors, including those cited by Jack Gallagher, also question brain death criteria; they do not reflect mainstream medical views.

Particularly given Catholic health care's commitment to following the *Ethical and Religious Directives for Catholic Health Care Services,* which require a patient to be dead prior to the donation of vital organs, it is important to understand why it is that DCD donors are dead before organ procurement begins.[2] Typically, in DCD a patient is not pronounced dead unless a) circulation has been lost and the patient has stopped breathing for 2-5 minutes, and b) a valid DNR order is in place.[3] This has at least three morally significant consequences. First, the patient has lost all major organ functions before being pronounced dead: the patient is not breathing, the heart is not beating, and the brain has lost all function (consciousness, for example, is lost only 15 seconds after circulation is lost). Second, available data indicates that after 2 minutes of absence, none of these functions will spontaneously resume. Third, given that a valid DNR order is in place, it would be contrary to legal and ethical standards to attempt resuscitation. Hence, the loss of all major organ functions is permanent.[4] The fact that resuscitation is contraindicated is also relevant to the second point: Every reliably documented case of the so-called Lazarus effect (spontaneous resumption of functions after being pronounced dead) has involved attempted resuscitation, typically with positive pressure and excessive ventilation which can cause pulselessness even with a beating heart.[5] Finally, it is important to recall that in DCD, the decision to withdraw treatment is supposed to be made independently of the decision to donate organs; that is, DCD has nothing to do with the withdrawal of life support and the expected death.

Gallagher also references the use of heparin (an anticoagulant) in DCD, asserts that it is not for the benefit of the donor, and recommends that protocols leave it to the discretion of individual physicians whether to administer heparin. He cites a 2004 article in making these claims. However, that article greatly underestimates the need to use an anticoagulant when procuring organs and overestimates risks to donors. (A more recent article challenges several of the medical and ethical allegations made against the use of heparin.)[6] Moreover, it is not that unusual to undergo medical procedures for the sake of another; and it is ethically acceptable to perform such procedures when consent is given, as is the case in DCD. Living organ donation, blood donation, genetic testing for the sake of offspring, all these procedures are routinely done for the sake of others. Finally, if the donor feels strongly about the act of organ donation—believes that it is a duty of charity—then is it really true that the donor receives no benefits by receiving medications that enable organ donation?

While transparency is important and DCD protocols should be made publicly available, we should not exaggerate what is possible or even desirable regarding community consent. Educating the community about donation is extraordinarily difficult, perhaps because people do not really want to know what happens during organ donation any more than they want to know what a coroner or mortician does with their bodies post-mortem. Moreover, if DCD is consistent with widely embraced medical-ethical principles, then the gatekeepers to DCD should not be communities—which are poorly educated—but family members and potential organ donors through the informed consent process. It is also a mistake to assume that the public will find DCD to be controversial. Most people who sign their donor card believe that they will be able to donate organs

when they die; they don't know that less than 1 percent of people are actually eligible when one restricts donor eligibility to those declared "brain dead."[7] Moreover, your average person is more baffled that a patient can be dead while on a ventilator with a beating heart than by the fact that a patient is dead when their heart has stopped beating and will never again resume beating.

I agree with Gallagher that a signed donor card is not sufficient to justify proceeding with controlled DCD, even as "first-person consent" or "donor designation" grows more widely accepted. The reason for this has less to do with how well informed patients are—they just assume they will be dead when organs are procured—but rather the fact that while the patient is still alive and on a ventilator, they must be treated as organ donors. Because DCD requires a decision to withdraw life support and affects the timing and location of the withdrawal of treatment, families should have a much greater role in decision making. But to be perfectly clear, this position does not challenge the status quo: no OPO currently treats a signed donor card as sufficient to proceed with controlled DCD. (Uncontrolled DCD, described in the 2006 Institute of Medicine report, is another matter, as the patients are dead before they are treated as candidates for organ donation.)

I disagree with Carol Bayley's suggestion that it is a best practice to make DCD an option only if the family requests it. Most families do not know enough to request DCD; and yet very many families find organ donation a meaningful way to heal their grief. If DCD is consistent with the principles of medical ethics, then there really is no good reason to withhold a request. Withholding a request makes the institution the decision-maker regarding organ donation rather than the patient (who may have signed a card) or the family (who might welcome donation).

Though convinced DCD can be done ethically and should be offered to families, we should not underestimate how difficult it is do DCD well. DCD requires a commitment of resources (e.g., frequently an intensivist is pulled off the unit for 60-90 minutes in order to observe and pronounce the potential donor dead; particularly in non-academic settings, where residents are unavailable, this can be taxing). DCD is also psychologically more complex for critical care and operating room staff. Critical care staff are asked to begin modifying the treatment of a living patient for the sake of donation (e.g., by changing the timing and location of withdrawal or by administering heparin pre-mortem). With consent, these sacrifices can be appropriate, they can be expressions of love of neighbor. But DCD still involves critical care staff in uncomfortable dual roles. Similarly, OR staff are unaccustomed to death in the OR. DCD sometimes presents the first occasion when OR staff witness the withdrawal of life support. The withdrawal of life support sometimes occurs outside of the OR for the sake of the family; doing so may also increase comfort among OR staff.

Given the above considerations, hospitals that plan to implement a DCD policy should engage in extensive discussion with staff, particularly pastoral care, critical care and surgical staff. Discussions need to engage not only the medical facts that are relevant to DCD—which are often misunderstood—but also the ethical and psychological issues that often trouble staff as they begin participating in DCD. Finally, to whatever extent possible, staff who are uncomfortable with DCD should not be asked to participate, both out of respect for their consciences and for families who must interact with caregivers.

We encourage you to share your reaction to these three articles on DCD with other readers of Health Care Ethics USA. *Please send your comments to smcconnaha@chausa.org for publication consideration in the next issue's "Readers' Forum" section.*

NOTES

1. James M. DuBois and Michael DeVita, "Donation after Cardiac Death in the United States: How to Move Forward," *Critical Care Medicine* 34, no. 12 (2006): 3045-57.
2. U.S. Conference of Catholic Bishops, *Ethical and Religious Directives for Catholic Health Care Services,* 4th Edition (USCCB, 2001). See Directive 64.
3. J.L Bernat, et al., "Report of a National Conference on Donation after Cardiac Death," *American Journal of Transplantation* 6, no. 2 (2006): 281-91.
4. For more details on the determination of death, see James M. DuBois, "Avoiding Common Pitfalls in the Determination of Death," *National Catholic Bioethics Quarterly* 7, no. 3 (2007): 545-59.
5. Michael A. DeVita, "The Death Watch: Certifying Death Using Cardiac Criteria," *Progress in Transplantation* 11, no. 1 (2001): 58-66. This article provides excellent medical information relevant to the death criteria used in DCD.
6. James M. DuBois, Francis L. Delmonico, and Anthony M. D'Alessandro, "When Organ Donors Are Still Patients: Is Premortem Use of Heparin Ethically Acceptable?" *American Journal of Critical Care* 16, no. 4 (2007): 396-400.
7. Institute of Medicine, *Organ Donation: Opportunities for Action* (Washington, DC: National Academies Press, 2006).