COMMENT

DONATION AFTER CARDIAC DEATH: RESPECTING PATIENT AUTONOMY AND GUARANTEING DONATION WITH GUIDANCE FROM OREGON’S DEATH WITH DIGNITY ACT

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As medical technologies advance, the legal community is forced to address difficult medical issues, balance competing ethical concerns, and find solutions to seemingly impossible questions. One such question is whether a patient “living” in a medically futile condition, who has sought the withdrawal of life support and donation of his or her organs can be declared legally dead—or, in this situation, can the law deem the administration of death hastening drugs acceptable—for the purpose of ensuring the viability of his or her procured organs for the future organ recipient? In the context of organ donation, such a question can have far reaching effects.

Consider the following situation. An adult woman, Anne, falls victim to a horrific bicycle accident, leaving her with only primitive brain stem functioning and completely dependent upon a ventilator.¹ Prior to the accident she signed an advance directive requesting that if she were ever in a state of permanent unconsciousness a do not resuscitate (“DNR”) order be set in place and any ventilator removed. The directive assigns Anne’s spouse to

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¹ This comment only advances its proposal for adults, excluding minors, for a number of legal and medical reasons. First, the legal and ethical deliberations surrounding prior consent—or even one’s wishes—for the withdrawal of life support, a DNR order, and organ donation are issues that a minor does not have the legal capacity to decide and require further consideration if it is to be applied to minors, through the consent of their parents. See Kathryn E. Mazzeo, Comment, The Right to Die Versus the Right to Live—Who Decides? The Long and Wandering Road to a Legislative Solution, 66 ALB. L. REV. 263, 285 n.190 (2002). Second, medical evidence has shown that “children may tolerate prolonged circulatory collapse” and therefore, organs obtained through donation after cardiac death (“DCD”) from minors may require the application of a separate DCD protocol. Maxine M. Harrington, The Thin Flat Line: Redefining Who is Legally Dead in Organ Donation after Cardiac Death, 86 DENV. U. L. REV. 335, 369 (2009).
act as her surrogate and to implement her requests. On several prior occasions the couple had discussed their wishes and each had expressed the desire not to remain on life support. Furthermore, concerned about the increasing organ shortage, the couple registered as organ donors and expressed to each other their strong desire that their organs be donated.

Following the accident, it became clear that Anne’s condition was not going to improve and that medical intervention would be futile. Pursuant to the directive and Anne’s wishes, her husband requested that life support be withdrawn and that Anne’s organs be donated. The hospital initiated its donation after cardiac death (“DCD”) protocol. However, strictly complying with the DCD protocol, the hospital did not continue the process of procuring Anne’s organs because she did not reach full cardiac arrest within a given time period; the organs could not be used because they are less likely to be successful in the recipient’s body. As a valid DNR was in place, Anne was not revived. She and her organs died several minutes later.

This comment explores the legal landscape surrounding DCD and the possibility of allowing the utilitarian removal of organs from patients who may not be considered dead under current legal definitions. While this exploration focuses on New York State law, much of the discussion is applicable to jurisdictions throughout the United States. Part I of this comment sets forth the current DCD protocols and the problems these protocols can create or prevent. Part II discusses current legal and ethical considerations involved in DCD and their interplay with long-established ideas of patient autonomy, nonmaleficence, and beneficence. Part III discusses the ethical arguments that proponents of procuring organs prior to legal death have set forth and the benefits that can be gained from such conduct. Part IV notes the hesitance—prior to their widespread acceptance—of the medical, legal, and lay communities to accept DNR orders, the removal of life-prolonging technology, and to legally define death to include brain death. Finally, Part V discusses what needs to change in the legal and medical spheres to ensure that organs can be procured within one hour after withdrawing life-prolonging measures. Acquisition of organs within that period is necessary to ensure that the organs remain viable for transplantation into the recipient(s) and to meet the requirements under DCD protocols.
I. DCD PROTOCOLS IMPLICATE ETHICAL CONCERNS

The Uniform Determination of Death Act ("UDDA"), which has been adopted in some form by all fifty states, defines a person as dead when the "individual . . . has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem . . . ."2 Under this definition, organ donors can be considered legally dead under either subsection (1) or (2). The first category makes up those donations considered under the umbrella of DCD and can include either controlled or uncontrolled donors.3 Uncontrolled donors are those who experience unforeseen cardiac arrest, either in or outside a hospital.4 Controlled donors include those who have suffered severe brain or spinal trauma, those who are experiencing end-stage musculoskeletal disease, or those with pulmonary disease who do not meet the medical requirements of brain death and are surviving with the assistance of a ventilator.5 The discussion in this comment is limited to controlled DCD donors.6 Under the UDDA's second definition, donors have


4 Harrington, supra note 1, at 338, 345–46; N.Y. STATE TASK FORCE ON LIFE & THE LAW, DONATION AFTER CARDIAC DEATH: ANALYSIS AND RECOMMENDATIONS FROM THE NEW YORK STATE TASK FORCE ON LIFE & THE LAW 4 (2007) [hereinafter DCD ANALYSIS & RECOMMENDATIONS].

5 Brain death is assessed by the existence of brainstem reflexes, such as blinking, state of coma, and ability to breathe on one's own. Sanghavi, supra note 2, at MM38; Harrington, supra note 1, at 338, 345–46; DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 2, 4; Joan McGregor, Joseph L. Verheijde & Mohamed Y. Rady, Do Donation After Cardiac Death Protocols Violate Criminal Homicide Statutes?, 27 MED. & L. 241, 242 (2008).

6 Though uncontrolled donors may constitute a vast resource—thirty-eight percent of all deaths are not within a hospital setting—this comment does not suggest that this group be included in the discussion, as the legal, medical, and ethical concerns vary greatly from controlled donation to uncontrolled donation. Harrington, supra note 1, at 364. A scant discussion of these considerations include the debate regarding autoresuscitation (the resumption of circulatory functioning without medical intervention), issues surrounding
experienced brain death, but artificial means maintain the patients’ heartbeat, pumping blood and oxygen to their organs, until they are removed and the organ donation process is commenced.7

To understand the DCD discussion fully, it is important to note that organs procured from brain-dead donors have a higher rate of transplantation success than those received from DCD donors.8 This is because the warm ischemia time of DCD donation is longer than that of brain death donation and can increase the chance of organ damage, ultimately decreasing the success rates of transplantation.9 Ischemia is defined as the “local diminution in the blood supply, due to obstruction of inflow of arterial blood or to vasoconstriction” and in the context of organ donation, warm ischemia time refers to the length of time an organ is deprived of oxygen before procurement of the organ (i.e., when it is still within the donor’s body).10 If warm ischemia time is too long then the organ is not usable.11 The number of donors that meet the brain death definition is not large enough to meet the increasing number of candidates awaiting transplants, which ultimately led to exploration into the use of DCD donors.12

Using DCD donors was met with both resistance and trepidation within the medical community and many of the same fears remain today.13 In 1997 and 2000, the Institute of Medicine (“IOM”) investigated the use of organs from DCD donors and in both reports supported expansion of the donor pool to include this group.14 However, these IOM reports noted that ethical concerns across the medical community would provide a significant hurdle to implementing DCD protocols nationwide.15 This was evidenced by a consent, and the concern that in-the-field medical professionals may be too quick to declare cardiac arrest for the purpose of organ donation. Id. at 353, 364-68.

7 Id. at 338.
8 This higher rate of transplantation success makes brain-dead donors more desirable. See id. at 346.
10 BLAKISTON’S GOULD MEDICAL DICTIONARY 703 (4th ed. 1979). Cold ischemia time refers to the period of time after the organs are procured and are outside the donor’s body. See R.M. Merion, Expanded Criteria Donors for Kidney Transplantation, 37 TRANSPLANT. PROCEEDINGS 3655, 3656 (2005).
11 DuBois, supra note 9, at 25.
13 Harrington, supra note 1, at 347.
14 DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 3.
15 Id.
2006 survey, which found that some in the medical community viewed DCD donation as being similar to euthanasia. As discussed below, a significant criticism of DCD is that the interval between cardiac arrest and procurement—usually two to five minutes—is not long enough to exclude the possibility of autoresuscitation and, thus, is not “irreversible,” a condition necessary to meet the legal definition of death under the UDDA.

Despite unease among some in the medical community, the Joint Commission on Accreditation of Healthcare Organizations mandated that all hospitals develop DCD protocols by January 1, 2007. The mandate did not require that the hospital implement its DCD protocol, only that a protocol be developed. By that same date, the United Network for Organ Sharing (“UNOS”) also mandated that the Organ Procurement Organizations (“OPOs”) operating under the authority of the Organ Procurement Transplantation Network (“OPTN”) create DCD protocols, and later that year set out model DCD protocols itself. Within nine months approximately 670 DCD transplants were performed nationwide, compared with 12,553 brain-dead donor transplants. While these protocols vary from hospital to hospital, state to state, and across OPOs, the basic process is as follows: (1) life sustaining equipment is withdrawn in a hospital operating room; (2) a physician waits a designated interval—typically one hour—for the patient to sustain cardiac arrest; (3) once cardiac arrest occurs the physician waits between two and five minutes to preclude any chance of autoresuscitation and to ensure “irreversibility;” (4) the physician declares the donor dead; and (5) the organs are procured and cold

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16 Harrington, supra note 1, at 350.
17 Recall that both definitions of death in the UDDA have an “irreversible” requirement. See supra text accompanying note 2. In DCD cases, the greatest amount of time that has lapsed in which a patient has experienced autoresuscitation, following cardiac arrest, is one minute. Marquis, supra note 9, at 25; DuBois, supra note 9, at 34.
18 The Joint Commission, which is responsible for accrediting ninety-one percent of the nation’s hospitals, required hospitals that did not wish to create and implement a DCD protocol within their own hospital to submit a written explanation outlining the reasons behind their refusal. DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 1; Harrington, supra note 1, at 349.
19 DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 1; Harrington, supra note 1, at 349.
20 Harrington, supra note 1, at 350–51. The federal government contracts with UNOS (under the authority of the National Organ Transplant Act) to operate OPTN, which is the body responsible for maintaining a list of both regional OPOS and those awaiting transplants. Id. at 342–43; DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 1.
preservation of the organs is begun and continues until transplantation commences.\(^{22}\)

As noted above, much of the debate surrounding DCD focuses on the two to five minute time period following cardiac arrest. This debate is premised on whether this short period of time is long enough to ensure that the patient has experienced “irreversible cessation” of circulation and respiration, so as to meet the first criteria of the UDDA definition of death.\(^{23}\) If irreversibility cannot be determined then organs are being procured from patients who may not yet be legally dead.\(^{24}\) The disagreement stems from an ethical and medical conflict over the meaning of “irreversible,” which is not clarified within the UDDA definition.\(^{25}\) Medically, in addition to guarding against autoresuscitation,\(^{26}\) “irreversible” can be interpreted to mean that it is currently impossible, given medical technology, to reverse the “cessation of circulatory and respiratory functioning.”\(^{27}\) Ethically, “irreversible” can mean that the cessation will not be reversed because doing so, even though possible, would be against the wishes of the patient given the existence of a DNR order.\(^{28}\)

In calculating the time needed to ensure irreversibility of the donor-patient’s death, it is necessary to balance the organ recipient’s interest in receiving a quality organ against the time waited to ensure that autoresuscitation will not ensue. A longer interval between removal of life support and removal of organs


\(^{23}\) See DCD Analysis & Recommendations, supra note 4, at 12.

\(^{24}\) DuBois, supra note 9, at 34. The period of two to five minutes is not long enough for the patient to suffer brain death from the deprivation of oxygen. Id. Therefore, the patient would not meet the requirements under the alternate definition of brain death until ten or more minutes had passed, at which point the organ would be damaged. Id.


\(^{26}\) Autoresuscitation appears to be uncommon in instances in which the patient is removed from life support and no cardiopulmonary resuscitation is undertaken. See generally K. Hornby et al., A Systemic Review of Autoresuscitation After Cardiac Arrest, 38 Critical Care Med. 1246 (2010) (reporting that no instances of autoresuscitation have been documented in DCD donors).

\(^{27}\) Additionally, there is debate over whether a DCD heart can ever be transplanted because the mere fact that the heart can be restarted in a “new” person precludes it from meeting the definition of “irreversible cessation.” Determination of Death Act, supra note 2; Sanghavi, supra note 2, at MM38; DCD Analysis & Recommendations, supra note 4, at 12.

\(^{28}\) DCD Analysis & Recommendations, supra note 4, at 12.
increases the risk of organ damage due to an increased warm ischemia time. To limit warm ischemia time, the IOM has endorsed the use of a two-minute interval, while the 2005 Consensus Convention recommended a minimum of two minutes to protect the donor and a maximum of five minutes to benefit the donee.

In practice it appears that physicians carrying out DCD protocols do not use the medical definition of irreversible because as technology advances it would almost always be possible to revive a patient after only two minutes had passed. Instead, in the case of controlled donors with DNRs in place, physicians are relying on the ethically based definition of irreversible, arguably exchanging it with a meaning that coincides more with “permanent.” This approach has been suggested by the IOM, which advocates that “irreversible” be understood to mean that circulation and respiration “will not resume spontaneously, and will not be restarted artificially.” As some scholars have argued, this places the definition of death into the realm of context, circumstance, and intent. In essence, the wishes of the patient become the determining factor of whether or not she or he is considered legally dead. For instance, if further medical care would be futile, meaning that the person’s medical prognosis will never improve to allow him or her to be able to function without life support, the person does not wish to live continuously in this state, and withdrawal of life support is planned, then a person can be deemed legally dead, despite not technically meeting the “irreversible” component of the UDDA. One scholar has even suggested that a system could be developed to allow death to take on different definitions depending on the circumstances.

While much of the medical, ethical, and legal debate centers around this two to five minute period, this comment explores the one-hour waiting period between withdrawal of life support and cardiac arrest. Under current DCD practice, patients who do not experience cardiac arrest within the allotted time frame, generally

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29 DuBois, supra note 9, at 34.
30 In the IOM’s 1997 report it was initially recommended that a five-minute allotment be used. This was later changed to two minutes in the IOM’s 2000 recommendation. Id.
31 Harrington, supra note 1, at 348–49.
32 DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 12.
34 See Harrington, supra note 1, at 363; see Truog & Robinson, supra note 25, at 2392–93.
35 See Harrington, supra note 1, at 363.
one hour, cannot donate their organs because the prolonged warm ischemia time decreases the organs’ likelihood of success in the recipient.\textsuperscript{36} Instead, the patient will be taken out of the operating room and brought to a separate room where he or she could suffer cardiac death within minutes, as in the “Anne” hypothetical above, or shortly thereafter. In controlled DCD situations, the patient will always have a DNR in place and will have requested the withdrawal of any ventilator, and therefore will inevitably suffer cardiac arrest and experience death, as the patient is unable to breathe without the assistance of a ventilator.\textsuperscript{37}

Under this protocol, if the one-hour time period lapses without the patient experiencing cardiac arrest then the possibility of procurement is automatically foreclosed, despite the expressed wishes of the patient—a consenting adult—to be removed from life support and his or her prior consent to donate his or her organs. To some, this reality means that, despite making the advance decision not to live on life support, to be an organ donor, and not to be resuscitated, they cannot guarantee that their death will provide those on the transplant waiting list with desperately needed organs—a consolation to some who believe that something good will come out of their deaths.\textsuperscript{38} Others believe that the circumstances, though unfortunate, do not warrant the premature procurement of organs because doing so would constitute the unlawful killing of a patient. As the law currently stands, this latter group would be right.\textsuperscript{39}

\section*{II. The Current Legal Landscape Precludes Utilitarian Procurement}

The medical community has long held tight to a number of standards that act as ethical guideposts for the practice of medicine, treatment of patients, and the development of patient-care policies, including, among others, beneficence, nonmaleficence, and respect for patient autonomy.\textsuperscript{40} In fact, the Hippocratic Oath, a pledge of ethics taken by physicians, demonstrates the tradition and standing

\textsuperscript{36} This is to ensure the quality of the organs received by the donee. Sanghavi, supra note 2, at MM38.
\textsuperscript{37} DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 8.
\textsuperscript{38} See Sanghavi, supra note 2, at MM38.
\textsuperscript{39} See id.
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that these principles hold within the medical community. Specifically, nonmaleficence, the duty to do no harm, and beneficence, the duty to promote the best interests of the patient, influence national medical policies regarding organ donation. In the world of organ transplantation the longstanding dead-donor rule evidences the predominance of these principles. The dead-donor rule requires that organ donors be dead before their organs can be procured and also requires that organ procurement not be the cause of the donor’s death.

The dead-donor rule is reflected in the language of the Revised UAGA which to date has been codified by forty-two states, as well as the District of Columbia and the Virgin Islands. The language of the Act explicitly states that an anatomical gift includes the “donation of all or part of a human body to take effect after the donor’s death for the purpose of transplantation . . . .” The comments following this definition further clarify that living donations are not considered an anatomical gift within the Act. This language makes the procurement of organs from those who do not meet the UDDA definition of death unlawful because it violates the dead-donor rule; some argue this is the case with DCD.

Though New York is not one of the states that has codified the Revised UAGA it does have its own codification of the dead-donor rule. Similar to the UAGA, New York’s Anatomical Gift Act states that “the gift [is] to take effect upon death.”

42 Truog & Robinson, supra note 25, at 2393.
43 DuBois, supra note 9, at 21 n.1.
44 Truog & Robinson, supra note 25, at 2391; DuBois, supra note 9, at 21 n.1.
47 Id. New York’s Anatomical Gift Act provides that “the donation of a kidney or other organ from a live donor for transplantation into an individual conditioned upon the donation and transplantation of a similar organ into an individual specified by the donor shall not, in and of itself, be considered to be ‘valuable consideration’ . . . .” N.Y. ANATOMICAL GIFT ACT, N.Y. PUB. HEALTH LAW § 4307 (McKinney 2011).
48 Revised UAGA Enactment Map, supra note 45. The Act, however, was introduced in the state’s legislature in 2009. Id.
49 N.Y. Anatomical Gift Act, PUB. HEALTH § 4301.
UAGA, a person is only able to give an anatomical gift if he or she has experienced death, otherwise the statute and the dead-donor rule is violated. Thus, under these statutes, procurement cannot be accomplished while a donee is under anesthesia because the patient is not dead.

Procuring organs from a person who does not meet the legal definition of death may also have criminal implications. For instance, New York defines homicide as “conduct, which causes the death of a person.” Some scholars argue that because brain death cannot possibly occur within the two to five minute period—it can take anywhere from ten to fifteen minutes—the current DCD practices technically constitute homicide. Procurement of organs within this time frame would be the proximate cause of death. However, it is unlikely that criminal prosecution would be successful because, as seen above, the medical community has largely accepted that DCD donors have experienced “irreversible cessation” following cardiac arrest and the two to five minute interval because the two to five minute time period accounts for any chance of autoresuscitation and because revival will not be performed. Therefore, it is not the procurement of organs that is the proximate cause of death, but rather the patient’s underlying medical condition.

On the other hand, if a physician were to procure organs prior to cardiac arrest or were to cause cardiac arrest to ensure that such procurement would occur within one hour of withdrawal then these actions would clearly constitute homicide. This is because the physician’s procurement of organs or administration of drugs to hasten death would likely be deemed the proximate cause of death. Under the current legal regime either type of procurement

50 See generally McGregor, Verheijde & Rady, supra note 5, at 241 (arguing that the criminal law concept of proximate cause dictates criminal liability for those procuring DCD organs).
51 N.Y. PENAL LAW § 125 (McKinney 2011).
52 See McGregor, Verheijde & Rady, supra note 5, at 251. Despite the authors’ beliefs that current practice constitutes homicide, the authors also note that the medical community has virtually stipulated “that patients are dead at a time convenient for organ retrieval.” Id. at 255. Thus, the endorsement by the IOM, DHHS, and UNOS may make it likely that criminal action will not be taken against physicians performing DCD procurements. See id.
53 Id. at 255.
54 See supra Part I.
55 See McGregor, Verheijde & Rady, supra note 5, at 246.
56 Id. at 255.
57 “There is a legal difference . . . between death after a physician’s discontinuation of treatment at the request of the patient or the patient’s surrogate decision-maker and death due to a physician’s active intervention in the causal nexus that results in the patient’s
is indistinguishable from homicide and cannot legally be performed. Additionally, as previously discussed, such acts would also violate the dead-donor rule.

III. ILLEGAL BUT ALSO UNETHICAL?

From a utilitarian and patient autonomy perspective there may be a number of compelling and persuasive reasons for changing DCD policies in an “Anne” situation—where there is (1) a futile medical condition; (2) withdrawal of life support; (3) a DNR in place; and (4) prior consent to organ donation. This includes a number of arguments that support changing DCD policies to ensure procurement within one hour of the removal of life support by administering death-inducing drugs to ensure that respiratory and circulatory functioning ceases within that one hour. Such procurement would serve to respect patient autonomy and from a utilitarian view benefit the transplant community.

In terms of patient autonomy, one such persuasive argument has been articulated as follows: “If people with no hope for meaningful recovery can be kept alive artificially, shouldn’t they also be permitted to die artificially?” Along the same lines, some scholars reason that patients should be able to consent to and essentially waive a certain degree of harm. These scholars argue that “[s]ometimes the harm of dying is sufficiently small that patients should be allowed to voluntarily accept that harm if it makes organ donation possible.” For instance, in the “Anne” situation, the patient cannot subsist without life support and has definitively made the advance decision to remove life support and to refuse resuscitation efforts. Therefore, death is inevitable. The administration of death-inducing drugs may only hasten the patient’s inevitable death by a matter of minutes.

This harm is so small because it “is neither an unexpected nor . . .
unwanted outcome in [the] process." Adult DCD donors should be permitted to accept such a small amount of harm through the process of informed consent. Other scholars dispute this and argue that “[p]atient autonomy is not an absolute value that trumps all other values,” taking the position that an individual cannot consent to harm entailing death because such a decision is not private in nature. Still, the concept of allowing the chronic or terminally ill to accept such a diminutive level of harm is not unprecedented.

This type of analysis begs the question: Is the minimal harm of losing minutes or hours of one’s life outweighed by the harm one may suffer due to his or her inability to donate organs if donation was his or her dying wish? If a patient makes the necessary advance decisions and welcomes the use of death-inducing drugs for the sole purpose of ensuring organ transferability, it is possible that to some more harm is caused by not administering the drugs—and thereby disregarding patient wishes—than is caused by the lost two, ten, or thirty minutes of unconscious life.

Coinciding with the diminutive level of harm experienced by the donor there is also the potential for others to be greatly benefited. Allowing a patient to consent to “premature” death by the administration of death-inducing drugs to ensure organ donation provides those awaiting transplant with two lungs, two kidneys, two intestines, a heart, a liver, and a pancreas; these organs can be used to improve up to nine different lives by increasing the availability of organs and thereby decreasing the amount of time each donee waits on the transplant list. This is especially compelling considering the increasing number of people who are placed on the organ recipient waiting list in comparison to the number of available organ donors.

62 DCD Analysis & Recommendations, supra note 4, at 11.
63 See id.
64 The authors also express the slippery slope concern that allowing “utilitarian considerations” to validate this form of “killing” would lead to an extension of this rationale to other medical scenarios. Potts & Evans, supra note 2, at 407–08.
65 See Vacco v. Quill, 521 U.S. 793, 801–02 (1997) (noting that physicians provide “aggressive palliative care,” which may hasten death, but is primarily intended to alleviate a patient’s pain at the end of his or her life).
66 See DuBois, supra note 9, at 39 (“Those who consent to organ donation often feel strongly that it is one way to bring meaning out of the tragedy of death.”).
67 In addition to the heart, intestines, kidneys, lungs, liver, and pancreas, a donor can provide various tissue, including “[c]orneas, the middle ear, skin, heart valves, bone, veins, cartilage, tendons and ligaments.” What Can Be Donated?, ORGANDONOR.GOV, http://www.organdonor.gov/about/donated.html (last visited May 15, 2012).
68 As of May 15, 2012, there are 114,329 people awaiting a transplant. The Need is Real,
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However, the idea of “killing people for their organs” is a widespread and discussed fear among members of society. Not only must an individual patient weigh his or her personal harm against any anticipated benefits, but society must also weigh the harm it will or can accept in order to allow organ donation in this context. Such a calculation is not unprecedented. There are other medical instances where society has determined that the benefits of a particular course of conduct outweigh the risk of harm to an individual.

For example, drug and pharmaceutical companies administer extensive drug trials, in which they are aware of the possibility that participants may experience major or minor side effects from the drugs given to them. However, trial administrators and the public as a whole accept this risk of harm as the cost of securing a potential benefit for a greater good. Participants are permitted to accept and waive this risk of harm under the doctrine of informed consent, regardless of whether their participation is altruistic or motivated by the promise of compensation.

The Council on Ethical and Judicial Affairs of the American Medical Association (“Council”) has also concluded that it is morally acceptable to allow an anencephalic neonate to be an organ donor, despite not meeting the legal definition of death under the UDDA. The anencephalic neonate must be definitively diagnosed as such and his or her parents must consent to the donation. Here, it seems that the Council implicitly concluded that the harm experienced by the neonate’s accelerated death is outweighed by the prospect of organ donation, as long as there is parental consent and no hope for improvement to the infant’s condition. Transferring this same analysis to allow earlier procurement of organs from DCD patients, the public could accept the minimal harm sustained in


69 See Harrington, supra note 1, at 368.
70 DuBois, supra note 9, at 39.
71 See id.
72 See id.
74 Id.
order to benefit the greater good. This harm refers to the minimal
time an already dying patient loses due to an accelerated death,
time when the patient is not even conscious. This harm can be
accepted only if the patient’s diagnosis is futile and the individual
patient has agreed ahead of time to accept this known harm.

Furthermore, there is already precedent for modifying medical
practices to protect organs for the recipient. As discussed in Part I,
the medical community has essentially decided when death is
experienced by interpreting the UDDA to construct a contextual
definition of irreversible—i.e., when the patient chooses withdrawal
of life support, has refused any method of revival, and his or her
respiration has not spontaneously resumed within two to five
minutes.75 Medically, given today’s advanced technology, a patient’s
condition is not technically irreversible, however if operating under
an ethical definition of irreversible—patient will not be resuscitated
against his or her wishes—the patient’s condition is irreversible and
the time of death is contextual. For instance, some OPOs require
that five minutes pass before declaration of death, while some only
require two minutes.76 This means that in one jurisdiction a patient
is dead but in another the same patient is not.77 By adopting such a
definition, the medical community respects the wishes of the
patient—to be removed from life support and not resuscitated—and
satisfies the irreversible element required to meet the definition of
death, while also avoiding violation of the dead-donor rule. This
effectively shifts medical practice and principles to allow for organ
donation.

Additionally, Japan recently accepted brain death as a legally
acceptable definition of death, but only allows this definition to
operate in the transplant context.78 There, “brain death is defined
operationally, and . . . allows patients who want to be organ donors
to be classified as dead so that organ procurement can proceed in
compliance with the dead-donor rule.”79 OPOs across the United
States could adopt a similar policy to allow “Anne” patients to be
determined legally dead if they so wished.

Another instance where medical practices are modified for the
protection of the organ recipient involves the use of anticoagulants.
Although controversial, some states allow the use of anticoagulants

75 See Shah & Miller, supra note 12, at 563.
76 See id.
77 See id.
78 Truog & Robinson, supra note 25, at 2395.
79 Id.
and other organ-preserving techniques to preserve the quality of organs for the donee, even though anticoagulants accelerate a patient’s death.\textsuperscript{80} Using anticoagulants is an affirmative act, which plays an active role in the demise of the patient; however, the use of anticoagulants is accepted as justifiable in order to better preserve the organs for the benefit of the donee.\textsuperscript{81} On the other hand, the administration of drugs for the sole purpose of hastening death, also an affirmative act, is criticized for exactly that—playing an active role in the patient’s death.

Allowing the use of death-inducing drugs to ensure organ procurement within one hour of withdrawal of life support ultimately protects patient autonomy by allowing “Anne” type patients to accept a certain level of harm to guarantee that their organs will be donated. This harm is so little that the benefits to the transplant community and the patient’s acceptance of such harm greatly outweigh it. In essence, once a near-brain-dead patient is removed from life support and medical staff is ordered to not resuscitate, the patient is “as good as dead.” However, no matter how compelling or justified the reasons may be, administering death-inducing drugs still constitutes homicide under the dead-donor rule.\textsuperscript{82} Instead, the above arguments constitute compelling reasons that call for a change in the law.

\textbf{IV. LEGAL, MEDICAL, AND SOCIETAL VIEWS CONSTANTLY EVOLVE}

As medical advances have blurred the line between what is considered moral and immoral, society has been forced to struggle with difficult questions. In turn, the legal system also has to address these difficult questions. DCD has engendered just one of these complex debates. The last thirty-five years have witnessed court attempts to set rules concerning DNRs and the removal of life support.\textsuperscript{83} Prosecutors have even attempted to prosecute physicians who procured a heart from a brain-dead patient.\textsuperscript{84} Today, the

\textsuperscript{80} DCD ANALYSIS & RECOMMENDATIONS, supra note 4, at 7. Other techniques used for the benefit of the organ recipient include: the insertion of a catheter into the donor’s leg to transmit preserving fluid into the body; medication to lower donor’s blood pressure; and medication to avoid blood clots. \textit{Id.}

\textsuperscript{81} See Harrington, supra note 1, at 361.

\textsuperscript{82} \textit{Id.}

\textsuperscript{83} \textit{In re Quinlan} was the first case in the United States to address the DNR issue in 1976. 70 N.J. 10 (1976) (addressing specifically the issue of whether a father could refuse the performance of life-prolonging measures on his 22-year-old daughter, who was in a persistent vegetative state).

\textsuperscript{84} Sanghavi, supra note 2, at MM38.
practice of procuring organs from brain-dead patients, respecting DNR orders, and removing life support upon request or consent, are common and standard practices in the medical world.

In 1968, the legally accepted definition of death was that a person experienced a “cessation of blood flow”; the United States had not yet embraced the concept of brain death. That year, when doctors Norman Shumway and Richard Lower performed the first heart transplant in the United States, procuring the heart from a brain-dead donor, they were prosecuted for the murder of the donor-patient. Though ultimately exonerated, the concept of brain death was not widely adopted by the medical and legal community until 1981, when the UDDA included brain death in its determination of death criteria. Today, the idea that brain death constitutes legal death is nearly undisputed and is actually now preferred to the circulatory and respiratory criterion that was favored in 1968.

In 1992, the Cleveland Clinic was the first medical center to explore the use of DCD donors under the circulatory and respiratory UDDA criteria. However, the jurisdiction’s district attorney investigated the clinic after a television news magazine, 60 Minutes, aired an episode questioning the morality of the DCD policies. This led to a halt in the Cleveland Clinic’s DCD exploration. Years later, the use of DCD donors is standard medical practice, though some reservations about the process still remain.

Similar resistance was seen as the legal and medical communities struggled with weighing a physician’s ethical obligation to preserve life against a patient’s interest in declining extraordinary medical treatment that keeps him or her in a futile medical condition. The first opinion to address this issue was In re Quinlan, which noted that:

It is both possible and necessary for society to have laws and ethical standards which provide freedom for decisions, in accord with the expressed or implied intentions of the patient, to terminate or withhold extraordinary treatment in

86 Id.
87 See supra note 2 and accompanying text.
88 See Harrington, supra note 1, at 340–41.
89 Id. at 346.
90 Id. at 347; see supra Part I.
91 Harrington, supra note 1, at 347.
92 See, e.g., Potts & Evans, supra note 2, at 407.
cases which are judged to be hopeless by competent medical authorities, without at the same time leaving an opening for euthanasia.\textsuperscript{93}

Though Quinlan, itself, was overturned, the principles underlying Quinlan remain good law and were explicitly supported in the 1990 United States Supreme Court decision Cruzan v. Director, Missouri Department of Health.\textsuperscript{94} Cruzan solidified a patient’s right to reject life-prolonging treatment and medical intervention.\textsuperscript{95} The refusal of life-sustaining care has largely come to be accepted as an unquestioned right and practice in the realm of futile care.\textsuperscript{96} Furthermore, it is a right recognized by every state through its own state law requirements.\textsuperscript{97} Healthcare proxies and advance healthcare directives allow patients, through their surrogates, to withdraw life support and refuse any medical intervention that would resuscitate them.\textsuperscript{98} These rights have been characterized as “firmly entrenched” within society's understanding and expectations of patient rights despite past criticisms that physicians were actively causing a patient’s death.\textsuperscript{99}

V. DEVELOPING A WORKABLE LEGAL FRAMEWORK

Legal scholars have suggested that the current legal scheme leaves room for—or provides a basis for—change in the DCD process.\textsuperscript{100} This change could include the removal of “irreversible” from the UDDA definition.\textsuperscript{101} This would allow procurement of organs following the two to five minute period, without also technically violating the UAGA, dead-donor rule, or state homicide law. Another alternative would be to specifically define

\textsuperscript{93} In re Quinlan, 70 N.J. 10, 33 (1976) (overruled by In re Conroy, 98 N.J. 321, 362 (1985) (holding that the evidence in In re Quinlan should have been admitted to prove the intent of the patient)).

\textsuperscript{94} Cruzan v. Director, Mo. Dep't of Health, 497 U.S. 261 (1990) (O'Connor, J., concurring).

\textsuperscript{95} Id. at 287 (noting that though the Court had implicitly upheld a patient’s right to refuse life-sustaining treatment, this was the first time the Court had outright held that this right is “a protected liberty interest”).

\textsuperscript{96} Id. at 281 (“It cannot be disputed that the Due Process Clause protects an interest in life as well as an interest in refusing life-sustaining medical treatment.”).

\textsuperscript{97} Matthew S. Ferguson, Note, Ethical Postures of Futility and California’s Uniform Health Care Decisions Act, 75 S. CAL. L. REV. 1217, 1233 (2002).

\textsuperscript{98} Id.

\textsuperscript{99} Id.


\textsuperscript{101} See Harrington, supra note 1, at 377.
“irreversible” to include those who are withdrawing life support by defining it “as the time of cessation of circulatory functions plus a period that scientific studies demonstrate would exclude the possibility of self-resuscitation.”

However, as some have pointed out, this change is not necessary because this is already current practice and is not deemed a violation of the UAGA, the dead-donor rule, or state homicide law. Additionally, the removal of “irreversible” from the UDDA definition would still not allow the forced “cessation of circulatory and respiratory functions” within one hour after the removal of life support. This act is argued to be more akin to euthanasia and would not be permitted by simply changing the legal definition of death. There would have to be a drastic change in the law to permit this type of procurement.

Despite changes in attitudes towards the removal of life support and the execution of DNR orders over the past forty years, the legal community has held tightly to the notion that euthanasia and/or physician assisted suicide are not ethically permitted acts. New York’s policy reasons for rejecting physician assistant suicide and distinguishing such acts from the withdrawal of life-sustaining care were stated in Vacco v. Quill. These reasons include: “prohibiting intentional killing [so as to ensure the] preservation of life; preventing suicide; maintaining physicians’ role as their patients’ healers; protecting vulnerable people from indifference, prejudice, and psychological and financial pressure to end their lives; and avoiding a possible slide towards euthanasia . . .”

In Vacco v. Quill, three physicians and three patients challenged the ban on physician-assisted suicide, alleging that the ban violated the Equal Protection Clause, as it was “essentially the same thing” as “refus[ing] life-sustaining medical treatment.”

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102 Id.
105 Vacco v. Quill, 521 U.S. 793, 800 (1997) (“[W]e think the distinction between assisting suicide and withdrawing life-sustaining treatment, a distinction widely recognized and endorsed in the medical profession and in our legal traditions, is both important and logical . . . “). The exception to this is the state of Oregon, which has allowed physicians to provide medication, under strict guidelines, to patients who have requested to die with “dignity.” Death with Dignity Act, OR. REV. STAT § 127.805.
106 Vacco, 521 U.S. at 808.
107 Id. at 808–09.
108 Id. at 797–98 (quoting Quill v. Koppell, 870 F. Supp. 78, 84 (S.D.N.Y. 1994)).
Court justified the distinction between withdrawal of life support and physician-assisted suicide by applying the legal principles of causation and intent.\textsuperscript{109} Regarding the removal of life support, the Court reasoned that the physician’s intention is nothing more than respecting the patient’s wishes on how they wished to live—with or without extraordinary medical intervention.\textsuperscript{110} Contrary to this, the Court reasoned that in physician-assisted suicide a physician’s intention must be “that the patient be made dead.”\textsuperscript{111} On the patient side, the Court wrote that “a patient who commits suicide with a doctor’s aid necessarily has the specific intent to end his or her own life, while a patient who refuses or discontinues treatment might not.”\textsuperscript{112} The Court acknowledged that a patient who wishes to have life support withdrawn might desperately want to live but live “free of unwanted medical technology, surgery, or drugs.”\textsuperscript{113} Thus, the Court based its distinction on the patient’s wishes and whether death was his or her ultimate objective.

With respect to causation, the Court found that there was a difference between the refusal of medical treatment, where the cause of death is the “underlying fatal disease or pathology,” and the administration of death-inducing drugs, where the administration is the direct cause of death.\textsuperscript{114} Using a causation and intent analysis the Court distinguished between physician-assisted suicide and the withdrawal of medical treatment.

While an intent analysis can be used to defend the rejection of physician-assisted suicide on a legal and social policy basis, it does not fit the situation at hand. Patients who are subsisting with the assistance of a medical apparatus and who wish to have this assistance withdrawn and their organs donated, even if it means hastening their death, do not have the same intent as those who seek physician-assisted suicide. Instead, those who withdraw life support and independently choose to donate their organs do not intend to die. These patients only intend to terminate life support while also donating their organs. However, a DCD patient can lose the ability to donate if his or her respiratory and circulatory functioning does not cease within one hour after the removal of life

\textsuperscript{109} Vacco, 521 U.S. at 801.
\textsuperscript{110} Id.
\textsuperscript{111} Id. at 802 (quoting Assisted Suicide in the United States: Hearing Before the Subcomm. on the Constitution of the H. Comm. on the Judiciary, 104th Cong. 367 (1996) (statement of Leon R. Kass)).
\textsuperscript{112} Vacco, 521 U.S. at 802 (citations omitted).
\textsuperscript{113} Id. (quoting In re Conroy, 98 N.J. 321, 351 (1985)).
\textsuperscript{114} Vacco, 521 U.S. at 801.
support.

Though the intent analysis may not be applicable in an “Anne” situation, the causation analysis is arguably met. Ensuring the patient’s death at the one-hour mark in order to ensure the procurement of the patient’s organs could only be accomplished with the administration of death-hastening drugs, which would be the direct cause of death. The patient would not merely die of the “underlying fatal disease or pathology.” It is possible, however, to still interpret the cause of death as the underlying futile medical condition because, but for the patient’s prognosis and dependence on a medical apparatus, the process of withdrawal and procurement would not be undergone. However, this construction of causation, while plausible, may not be enough to eliminate the causation concerns connected with procurement after the administration of drugs. Therefore, the reasoning set forth in Vacco, upholding the proscription against physician-assisted suicide, may prohibit this type of procurement.

Whether or not the causation and intent elements coincide with this type of procurement, it is evident that in such a limited situation as is proposed here—a futile condition sustained by life support and the expressed wishes for guaranteed donation of one’s organs and removal of this support—the situation does not encompass the ethical or legal concerns against physician-assisted suicide expressed in Vacco. While what is proposed in this comment meets the definition of euthanasia, it is still far from the apprehensions expressed in Vacco.

For instance, the Vacco Court was concerned with avoiding intentional killing and preserving life. Here, while the administration of death-hastening drugs is intentional, in “Anne” circumstances the patient’s death is inevitable. The Court also expressed the desire to keep the physician in the role of healer; however in this unique circumstance the patient is beyond

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115 Id.
116 Id. at 808–09.
117 Euthanasia is generally distinguished from physician-assisted suicide by who is actively involved in the killing. When the doctor actively takes part in the patient’s death (e.g., administering the drugs) it is considered euthanasia, while the doctor’s passive participation in the patient’s death constitutes physician-assisted suicide. See Dominic Wilkinson & Julian Savulescu, Should We Allow Organ Donation Euthanasia?: Alternatives for Maximizing the Number and Quality of Organs for Transplant, BIOETHICS, May 3, 2010, at 7.
118 Vacco, 521 U.S. at 801.
healing.\textsuperscript{119} Allowing the physician to ensure the cessation of circulation within one hour of removal of life support guarantees that the patient’s organs will be procured, allowing the physician to heal up to nine other individuals.\textsuperscript{120} Finally, the Court wanted to protect people from feeling pressure to end their lives.\textsuperscript{121} In this specific circumstance, the pressure, whether financial, social, or psychological is muted because the patient would have already made the advance decisions to remove life support, request a DNR order, and ensure that his or her organs could be donated through the use of death-inducing drugs. Thus, the Court’s concerns in \textit{Vacco} do not neatly apply to this exceptional situation.

This comment proposes that death under “Anne” circumstances be viewed as being caused by a patient’s underlying futile medical condition and not by the administration of drugs. This would parallel how the underlying futile medical condition is deemed to be the cause of death when life support is withdrawn. This comment also urges the legal community to view a patient’s choice to request the administration of drugs following withdrawal of life support, in order to ensure procurement of organs, as merely one additional option available to a consenting adult. This consenting adult could make the individual decision with a properly executed healthcare proxy or advance healthcare directive.\textsuperscript{122} Furthermore, because organs would not be procured until after withdrawal of life support and after the drugs had taken effect, the procurement would not be in violation of the UAGA or the dead-donor rule.

It is recognized that this type of proposal may be met with skepticism and hesitation, as it meets the definition of euthanasia—indeed it does involve a physician or other staff member physically administering a drug that will bring about the death of a patient more quickly.\textsuperscript{123} Therefore, a second proposal recommends that states allow this type of procurement following the enactment of a carefully drafted statute, which provides only a limited exception and is tightly regulated through the institution of strict requirements. Though this type of statute would be unprecedented, Oregon’s Death with Dignity Act, a statute legalizing physician-
assisted suicide, provides guidance.

Physician-assisted suicide is currently only permitted in Oregon, Washington, and Montana.\(^{124}\) Oregon, specifically, was the first to enact legislation permitting this practice on a very limited and regulated basis.\(^{125}\) Oregon’s Death with Dignity Act provides that:

An adult who is capable, is a resident of Oregon, and has been determined by the attending physician and consulting physician to be suffering from a terminal disease, and who has voluntarily expressed his or her wish to die, may make a written request for medication for the purpose of ending his or her life in a humane and dignified manner . . . \(^{126}\)

Procedurally, the statute requires that the patient make an oral and written request to his or her physician and then reiterate this oral request no less than fifteen days after the original request.\(^{127}\) The written request must be signed and dated by the patient and witnessed by two people who attest to the patient’s willingness and capacity to make such a request.\(^{128}\) Furthermore, a physician, who is also required to counsel the patient and ensure that the patient is making an informed decision, must diagnose the patient as suffering from a terminal illness.\(^{129}\) A consulting physician must then confirm this diagnosis and confirm that the diagnosing doctor fulfilled the counseling and informed consent process requirements.\(^{130}\) In addition to several other safety provisions, the statute also allows the patient to rescind his or her request at anytime.\(^{131}\) Finally, the statute provides protection for those medical professionals involved in the prescription of the medication, by stating that “in no person shall be subject to civil or criminal


\(^{126}\) Death with Dignity Act, OR. REV. STAT. § 127.805.

\(^{127}\) Id. § 127.840.

\(^{128}\) Id. § 127.810.

\(^{129}\) Id. §§ 127.815, 127.835.

\(^{130}\) Id. § 127.820.

\(^{131}\) Id. § 127.845.
liability or professional disciplinary action for participating in good faith compliance with" the Act.132

Procurement following withdrawal of life support and the administration of death-hastening drugs to ensure the cessation of the patient’s circulation within one hour can be statutorily permitted with restrictions similar to Oregon’s Death with Dignity Act.133 For instance, the writing requirement could be met through the execution of a legal document such as a healthcare proxy or advance healthcare directive, which the person must sign in the presence of two witnesses, who attest to the person’s mental faculties and willingness to execute the document. This document could provide that, should the person’s life be sustained by the use of medical support, the person be removed from such life sustaining apparatus, and request the administration of drugs to ensure the cessation of circulation so that she or he may donate his or her organs within the one-hour time limit. In the alternative, the writing requirement could allow the person to name a surrogate, who could make the decisions necessary to ensure that the person does not live with the assistance of life support and/or to consent to whatever is necessary to ensure the procurement of the patient’s organs.

A requirement could also be included in the statute that only allows the execution of this type of legal document following consultation with a medical professional, whose role would be to explain the DCD process to the individual and to counsel them on what they would be agreeing to. Admittedly, this proposal may prove to be unduly burdensome on the healthcare profession or involve too much effort, as people may not go to such great lengths in preparing for these types of situations, which would ultimately work against one of the statute’s goals—to increase the donor pool.

Additionally, the withdrawal of life support implicitly requires that the person suffer from a futile medical condition. In the United States, the type of futility deemed sufficient to permit the withdrawal of life support refers to “treatment [that] is ‘clearly futile in achieving its physiological objective and so offers no physiological benefit to the patient.’”134 The proposed statute could

132 Id. § 127.885.
133 While we can look at Oregon’s Death with Dignity Act, it does not provide exact parallels, as this comment suggests that the physician administer the drugs rather than the patient him or herself.
134 Additionally, physicians have no obligation to perform any medical treatment that is viewed to be futile. Jon D. Feldhammer, Note, Medical Torture: End of Life Decision-Making
also include a provision that both the attending physician and a consulting physician examine the patient's condition to determine futility. Should the confirming prognosis demonstrate that further care or treatment would be futile then the withdrawal and DCD process could be commenced.

Finally, the statute would have to include an immunities provision, like that of Oregon's Death with Dignity Act. This section would allow for the administration of drugs without subjecting the medical personnel involved to criminal, civil, or professional liability. Such a provision would permit this type of DCD protocol to be implemented without also being in violation of the dead-donor rule, UAGA or similar state statutes, or state homicide statutes.

With the exception of Oregon, Montana, and Washington, state law does not allow active participation in a patient's death. Despite this, the ethical reasons in support of administering death-hastening drugs to ensure procurement of organs from patients who have requested the withdrawal of life support and donation of their organs may be so persuasive as to necessitate a change in the current state of the law. This type of change would require a considerable amount of legislation across the fifty states, but has the ability to increase the donor pool while only causing a minimal degree of harm, if any at all. As Norman Cousins states: "Death is not the greatest loss in life. The greatest loss is what dies inside us while we live."


135 See supra text accompanying note 132.
136 See supra note 124 and accompanying text.