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VIEWPOINT
Medical Ethics

The "Harm Principle" in the Context of Organ Donation

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Concern has arisen that "Donation after Circulatory Death" organ donors are not beyond harm; they may feel pain during procurement. A "harm principle," which simply places the prevention of donor harm as a central ethical obligation, should be used during organ donation to protect donor interests and protect donors from physical suffering.

Abstract

Organ procurement in the United States is regulated by the Dead Donor Rule (DDR), which states that individuals cannot be killed by organ donation. Proponents of organ donation have successfully changed death declaration criteria through the creation of brain death and the implementation of shortened "wait times" for the declaration of death via cardiopulmonary criteria, effectively increasing the organ pool. However, substantial concern has arisen that "Donation after Circulatory Determination of Death" (DCDD) donors are not beyond harm; they may feel pain during the procurement process.

Therefore, a "harm principle," which makes the prevention of donor harm a central ethical obligation, should be used during organ donation. A harm principle (1) protects the interests of donors and (2) protects them from physical suffering. If the DDR were revoked and the harm principle was used alone, the pre-mortem donation of both non-vital and vital organs could be permitted (under strict guidelines formulated to protect the donor). However, it is more realistic that the harm principle be implemented in conjunction with the DDR. This would prohibit DCDD donation without the use of anesthesia. It could also permit the pre-mortem procurement of non-vital organs from those who are imminently dying. Through this analysis, the implications of the harm principle on different methods of organ procurement will be examined.

Introduction

The DDR prohibits the killing of individuals by or for organ donation [1]. In other words, potential organ donors must be dead before their organs may be procured for donation (excluding the living donation of non-vital organs, such as a kidney). However, the utilitarian appeal of an increased organ supply has lead to the reconstruction of death declaration criteria, first by the recognition of brain death [2], and then by the formation of DCDD protocols. Since the conception of DCDD protocols, substantial concern has arisen over the validity of death declarations in the cases of DCDD donors [3-5]. In fact, DCDD donors may feel pain during the organ procurement process [6-9]. Such evidence begs the question: "Are these donors really dead?" Using a term coined by Miller, Troug, and Brock, our adherence to the DDR may be nothing more than a "moral fiction," used only to satisfy public opinion of the medical field: that doctors must not intentionally cause the death of their patients [10].

Proponents of organ donation have successfully circumvented the DDR through a conceptual gerrymandering of death declaration criteria, leaving donors unprotected and subject to substantial harm in the donation process. Therefore, a "harm principle" should be developed as an ethical standard for organ transplantation services. A nearly identical proposal was made by Rodriguez-Arias *et al*.: "what is important for the protection and respect of potential donors is […] to be certain that they are beyond suffering and to guarantee that their autonomy is respected" [11]. It is the goal of this paper to expand upon this proposal, dissecting the practical consequences that a "harm principle" would have on the different methods of organ procurement. Finally, a practical approach, involving the application of the harm principle in conjunction with the already used DDR, will be explored.

THE ACCEPTANCE OF BRAIN DEATH

Brain death criteria were first proposed by the Ad Hoc Committee at Harvard Medical School in 1968 [2]. Following its "rollout," the Harvard criteria were rapidly accepted as a valid benchmark for the declaration of death in the United States. In 1981, the President's commission recognized death of the entire brain as death. Today, all 50 states have laws that recognize brain death as death [12].

Despite its initial rapid growth and acceptance, several scholars have contested the validity of brain death criteria as a true measurement of death. In 1998, Shewmon wrote the seminal paper discrediting the validity of brain death as death. While some scholars, such as James Bernat, have made philosophical arguments supporting brain death, arguing that it is an appropriate indicator of the permanent cessation of functioning of the organism as a whole [13], Shewmon contests such arguments. Instead, he contends that the bodies of brain dead patients can still perform some integrated functioning (maintain homeostasis, grow, experience puberty, gestate a fetus), sometimes for many years [14]. Other scholars, like Youngner and Truog, have echoed similar concerns [15,16].

It should be noted that the validity of brain death criteria for declaration of death is of no consequence to the arguments made in this paper. Brain dead patients are believed to be beyond harm. Therefore, so long as their previous informed consent had been obtained, the harm principle would allow for donation of organs from the brain dead (regardless of their legal status as dead or alive). Still, the intent with which brain death was created is of great importance. The Harvard committee directly cited two reasons for the formation of brain death: (1) to avoid homicide charges against physicians who turned off the ventilator of brain dead patients and (2) to avoid similar charges for the procurement of their organs [2]. No philosophical arguments were made as to why brain death is death. Instead of intending to more precisely identify death, these criteria were written with a utilitarian motive: to increase the donor pool of organs. Not coincidentally, about 90% of the organs procured are from brain dead patients [17]. It was this utilitarian intent and a loss of focus on donor protection that opened the door to donor harm in the organ procurement process.

DCDD PROTOCOLS

These same motives inspired the formation of DCDD protocols. Key to the ethical debate over DCDD protocols is the "waiting time" required after cessation of cardiopulmonary functioning for the patient to be declared dead. How long must you wait after cessation of cardiopulmonary functioning until that cessation is irreversible? Some countries in Europe wait for 10 minutes of asystole and apnea [18]. The Institute of Medicine recommends 5 minutes [19]. The University of Pittsburgh requires just 2 minutes [20]. Finally, Denver Children's Hospital requires only 75 seconds for some neonatal heart donors [21].

Irreversibility, while intrinsic within the definition of death, is difficult to define. There has been much disagreement on how much time must elapse for cardiopulmonary functioning to be irreversibly lost, as evidenced by the wide range of waiting times involved in different protocols. However, a recent re-

search study has reported the successful resuscitation of animals after 11 minutes of asystole [22]. Such findings cast doubt on the validity of protocols with shorter waiting times. Is the "death" of DCDD donors after 5 minutes, 2 minutes, or 75 seconds really irreversible?

Proponents of DCDD donation would contest this question using an argument formulated by James Bernat: DCDD donors do not need to be irreversibly dead (cannot be resuscitated). They must only be permanently dead (will not be resuscitated), as permanence is an acceptable indicator of pending irreversibility [23]. Permanent loss of cardiopulmonary functioning occurs when there is no chance for spontaneous auto-resuscitation (about 7 minutes) [24], much sooner than the irreversible loss of those same functions. Bernat justifies the use of "permanence" instead of "irreversible" in death declaration only by citing common medical practice: that is how death is declared in US hospitals today [7].

Just like the formation of brain death criteria, the criteria used for diagnosing death in DCDD donors has no philosophical basis. It was formulated for practical convenience: the permanence standard is what doctors currently use. In addition, it conveniently satisfies utilitarian motives to increase the donor pool: "permanence" permits a shorter wait time after cessation of cardiopulmonary functioning. This limits organ damage from warm ischemia that would otherwise ensue and allows healthier organs to enter the organ pool.

Although DCDD protocols work to ensure the procurement of healthy organs for donation, concern for the welfare of DCDD donors during the donation process is lacking. As a result, DCDD donors may inadvertently experience pain during organ procurement.

Many consider cardiopulmonary criteria a valid tool for death declaration because it acts as a surrogate indicator of the impending brain death that will follow shortly after [13]. However, in cases of DCDD organ donation, no brain tests are carried out to confirm brain death. If organs are procured immediately after permanent cessation of cardiopulmonary function, the brain may not yet be "dead," and that person may feel pain.

These concerns are more prominent when extracorporeal membrane oxygenation (ECMO) is used. Often, after patients are declared dead, they are placed on ECMO, which circulates oxygenated blood throughout their body. This is done to keep their organs "fresh" and to eliminate the need for immediate organ retrieval [25]. However, just as oxygenated blood travels to their soon-to-be donated organs, so too does it travel to the brain. In this way, ECMO may restore brain functioning if it had only been permanently, but not irreversibly, lost. If brain function is restored, there is a very real chance that pain is experienced through the procurement process.

As a response, anesthetic could be used as a safeguard for DCDD donors, especially for those on ECMO. An inflated thoracic occlusion balloon has also been used in conjunction with ECMO to block oxygenated blood flow to the brain (and thus eliminate the potential for brain revival) but allow blood flow to the rest of the body [26]. These practices have met some resistance. Bernat and others have rejected the use of both a thoracic occlusion balloon and ECMO for donors, as the former raises questions of physician complicity in the casuistry of death, and the latter negates the determination of death by violating the permanence standard [6,7]. Such practices could also result in general public distrust of the medical profession and organ donation in general.

Not surprisingly, shortened DCDD criteria have created many practical dilemmas and invited many scholarly critiques. The notion of permanence has allowed many to falsely justify the premature declaration of death of organ donors, only to negate that death declaration by placing patients on ECMO and making the "permanent" loss of circulation no longer permanent. This is precisely why the use of permanence instead of irreversibility is suspect: it allows the intentions of others to play a role in de-

termining death. In these cases, death declaration is contorted as a means to the utilitarian end of organ procurement.

Further, these practices have opened Pandora's box, challenging common sense understandings of death, by creating logically counterintuitive situations where one might cause physical harm to the "dead." The use of "permanence" may be ethically preferable in most cases, where death declaration does not have surgically invasive and potentially harmful consequences. But it is only in situations of consequence (organ donation) when we are completely dependent on the accuracy (and thus validity) of our death declaration criteria. Ironically, it is only in these circumstances, when it really matters, where such a construal of permanence falls short.

THE DDR AND ITS PRACTICAL INEFFECTIVENESS

These debates have blurred the lines between life and death, with little hope for clear consensus in the near future. The criterion used for death declaration is dependent on one's philosophical definition of death. In our pluralistic society, such definitions are subjective to the individual and are socially constructed [15]. Thus, comprehensive social agreements on the definition of death, death declaration criteria, and related policy are unlikely to be reached.

Still, any definition of death would prove to be incompatible with the notion of "post-mortem physical pain and suffering." DCDD donors, if they are capable of feeling pain, are surely not dead, at least in the way we commonly understand death. Their "death," at the point of donation, is merely a legal formality. In practice then, the DDR does not protect donors from a painful donation. Conceptual gerrymandering of death criteria has stripped the DDR of its ability to do so. Instead, it only promotes a sense of public trust of the medical profession, and it allows society (including physicians) to believe a "moral fiction": that organs are only procured from people after they are dead [8].

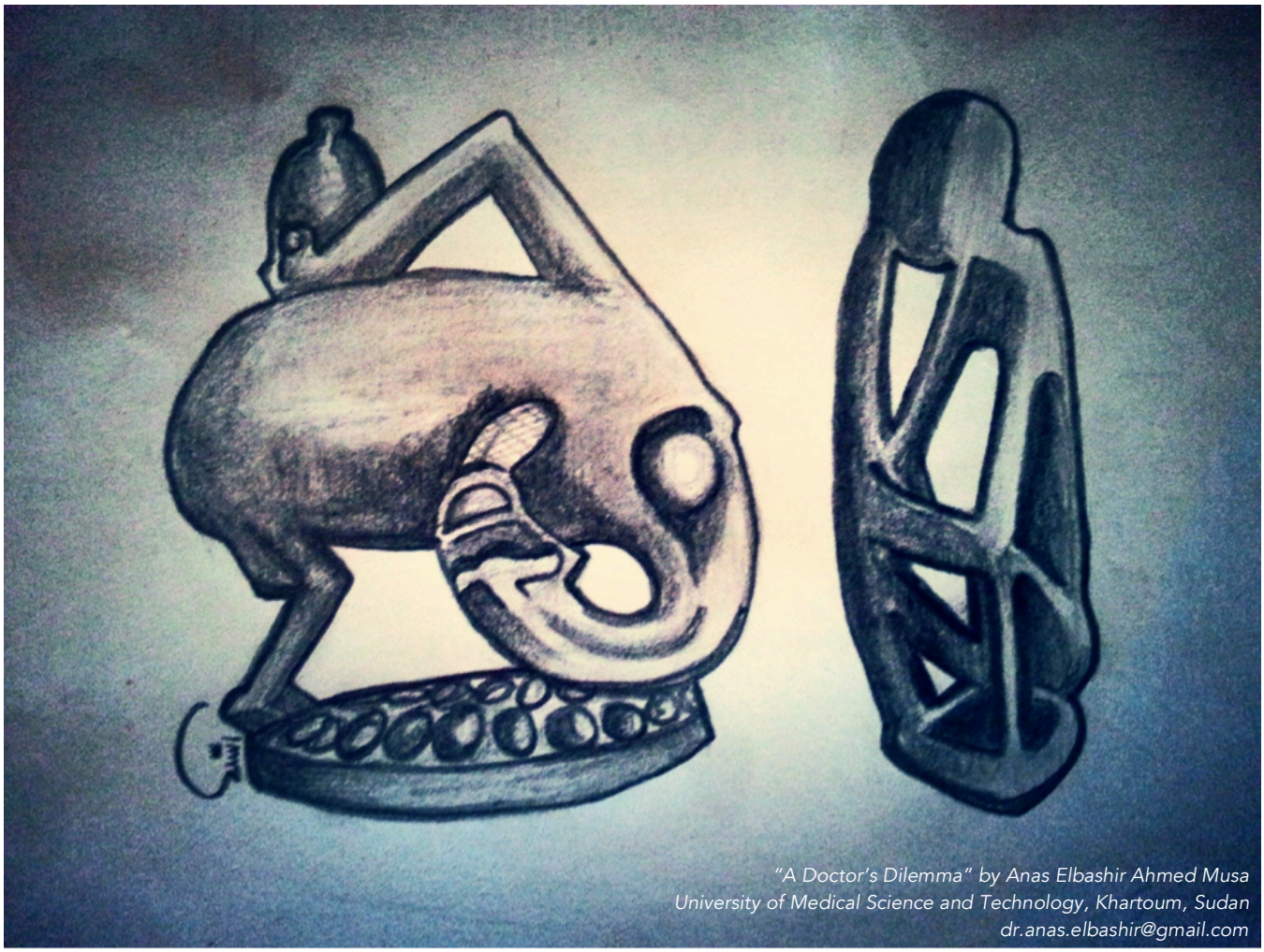
THE NEED FOR A NEW ETHICAL GUIDELINE: THE HARM PRINCIPLE

To protect organ donors, a new ethical standard must be created that does not engage in already exhausted, futile arguments over the validity of death criteria. While the DDR was formulated to protect organ donors, pro-organ donation utilitarianism has restructured death criteria and has left the DDR ineffective. Organ procurement services ought to follow the harm principle, which bypasses the death declaration criteria debate and is thus immune from similar gerrymandering. The harm principle simply states: "organ donors must not be harmed by the organ procurement process."

Harm has been defined as simply "a setback to an interest" [27]. In other words, if the interests of an individual have been impeded, then that individual has been harmed. The protection of patient interests has been a long-standing priority in medical practice. The interests of patients have been protected through the patient's ability to formulate living wills and advance directives through requirements for informed consent and through the overall promotion of patient autonomy, the chief principle of American bioethics.

In this way, individuals define their own interests. They effectively decide for themselves what is, and what is not, harm. However, in this context of the harm principle for organ donation, patient autonomy does have a limit. The harm principle does not permit for a physically painful donation process, even if informed consent were obtained. While individuals may possess the right to inflict physical harm upon themselves, physicians certainly retain the right to refrain from complicity in physical harm of their patient.

The right of physician integrity has gained foothold in the futility debate. If patient care is determined to be medically futile, physicians have the right to refrain from offering that care [28]. In fact, they ought not offer futile care to patients, for such actions are contrary to the goals of the medical profession. Physician integrity, in these cases, justifi-



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ably trumps patient autonomy. Along a similar vein, the explicit physical harm of organ donors directly opposes the goals of the medical profession, even if the donor knowingly consents to it. Physical harm can be easily prevented by anesthesia, and it should always be avoided. Therefore, the harm principle in the context of organ donation is twofold: (1) organ procurement must not interfere with the interests of the organ donor, and (2) organ procurement must not inflict physical suffering onto the organ donor.

The harm principle must be explored in two separate scenarios: when used in conjunction with the DDR, and when used alone, after the revocation of the DDR. While it has been shown that the DDR today serves little functional purpose in the protection of donors, it is unlikely to be revoked in the near future. Although the harm principle would be adequate if it stood alone, the more likely scenario, where it is implemented alongside the DDR, is a sufficient, "better than nothing" compromise. Under this approach, both the DDR and the harm principle must be satisfied for donation to be ethically acceptable.

THE HARM PRINCIPLE USED IN CONJUNCTION WITH THE DDR

Donation after Declaration of Brain Death

Brain dead patients, in current medical practice and under current criteria, are understood to be dead. Therefore, the donation of organs from brain dead patients is not a violation of the DDR.

Although the validity of brain death has been debated, it is unanimously agreed upon that brain dead patients are beyond harm. Therefore, donation after declaration of brain death would be unaltered

by the use of a harm principle in conjunction with the DDR.

DCDD With or Without ECMO

The use of a harm principle would have its largest impact on the present-day DCDD practices. Obviously, DCDD protocols are in compliance with death declaration criteria and thus "follow" the DDR. However, substantial likelihood for harm, discussed in detail above, must be addressed.

DCDD, with or without the use of ECMO, often utilizes the permanence standard. As shown above, there is a real possibility that DCDD donors are not yet brain dead and could feel their organ procurement operation. When ECMO is used, there is an even greater chance for brain functioning to be regenerated and for pain to be experienced. Here, the second component of the harm principle is violated: physical pain may be inflicted onto the organ donor.

The first part of the harm principle is also violated: DCDD, with or without ECMO, interferes with the interests of the donor. Organ donors consent to donation after death. Most, if not all, organ donors would reject a notion of death in which you are still "alive enough" to feel pain. Truly informed consent was never obtained; organ donors consent to organ donation under the presumption that they will be dead, and thus intrinsically immune to physical pain, during the procurement process. Due to the violations of both components of the harm principle, DCDD performed in these circumstances should be eliminated.

DCDD could still be permitted circumstances where proper measurements are taken to promote the interests of donors and protect them from physical pain. One option would be to wait a longer duration after the loss of cardiopulmonary functioning to declare death. The permanence standard allows death to be declared in close proximity to the loss of breathing and circulation, before brain death has occurred, thus opening the door to potential harm of the donor. By simply waiting longer (10 minutes or more), physicians could ensure the irreversible death of brain function, which would eliminate the possibility of the donor perceiving pain during the procurement process.

Although this practice would be ethically justified by the harm principle, it may be impractical without the use of ECMO. Ten minutes of warm ischemic time before procurement may damage the viability of organs. Studies have shown, however, that organs still retain their viability if the donor body is placed on ECMO after 10 minutes or more of pulselessness [26]. This would be ethically acceptable, because the brain would be irreversibly dead at this point, and could not be resuscitated by the perfusion of oxygenated blood. Therefore, a waiting time of 10 minutes after the commencement of pulselessness would require the use of ECMO to keep the organs viable for donation.

ECMO could also be used earlier, after the declaration of "permanent" death. However, other measures must be taken to ensure donor protection from physical suffering. The use of anesthesia would not prevent oxygenated blood flow from going to the brain, but it would successfully eliminate the chances of donor perception or awareness, just as it does during surgery for living patients. This would eliminate the possibility of donors perceiving pain during organ procurement. This practice may be preferable, as it prevents physical harm, ensures less warm ischemic time and higher viability of the organs, and is more practical than waiting 10 minutes.

The use of a thoracic occlusion balloon for DCDD donors must be rejected. Using the permanence standard, the placement of an occlusion balloon would be invasive and could case pain and suffering (similar to organ procurement during permanent death). Therefore, it does not satisfy the harm principle. If the procedure were performed in conjunction with anesthesia, the balloon would serve no purpose, as anesthesia already adequately protects the donor from physical harm. Therefore, the placement of an occlusion balloon would be unnecessarily invasive and without benefit.

As with all medical operations, the consent obtained for these procurement processes must be truly informed. Patients and their families ought to be made aware of the use of anesthetic during the procurement process. Concerns that donors may refuse to donate, knowing that they will need anesthesia, does not justify the hiding of relevant medical information. As with all medical decisions, it may be impractical for surrogates to be completely informed in the short time after death and before DCDD donation. Still, efforts should be made to educate surrogates, to educate the public in general, and to educate individuals when they declare themselves as organ donors.

In summary, DCDD done with or without ECMO is justified under the practical interpretation of the DDR, but is unjustified under the harm principle. These practices commonly use the "permanence" standard, and procurement may begin before brain death, when the donor can still perceive physical pain. In order to operate in compliance with the harm principle, several options could be exercised. To eliminate physical pain, the wait time for procurement could be extended to 10 minutes. To preserve the organs of the donor, ECMO may be used after the 10-minute wait time, when the brain is irreversibly dead and the donor cannot be harmed. Alternatively, ECMO could be used after the declaration of "permanent" death. Because the brain has not irreversibly died, anesthesia must be used to restrict the donor's ability to feel physical pain. As with all organ donations, a stringent informed consent process is required in order to protect and promote the interests of donors.

Pre-Mortem Donation of Non-Vital Organs

The DDR, while primarily arguing that individuals cannot be killed by organ donation, can also be interpreted in its most literal sense: organs cannot be procured from individuals until they die [1]. Despite this rule, it is common practice for kidneys to be procured from living donors. Thus, our society has made a conscious exception to the DDR.

If donors need not be dead for the procurement of their organs to be justifiable, then what prevents us from procuring non-vital organs from consenting organ donors before withdrawal of their life-sustaining care? Discussions of organ donation could not begin until the decision to withdraw care had already been independently made. Youngner and Arnold first proposed such an argument, insisting that a clear and rigorous consent process accompany it. More recent arguments have also been made for kidney donation before end of life care [29]. In these cases, advance directives could dictate, "If a medical decision is made to withdraw care, resulting in my death, I wish to first donate both of my kidneys." That patient could be taken to the OR in the morning, undergo a kidney procurement operation under normal anesthesia, and have their bleeding vessels tied off or cauterized. Later in the day, the decision to withdraw care could be exercised as planned. The patient would die as a result of the care withdrawal, far before he/she could die from renal failure [1].

These actions are in accordance with the harm principle. First, given a stringent consent process, they act in accordance with the interests of the patient. Second, normal pain management measures would be taken, just as they are already taken both with surgical patients and with patients prior to the withdrawal of care. Therefore, the patient would be protected from unwarranted physical harm.

Just as with living kidney donation today, premortem donation would require that an exception be made to one construal of the DDR: that organs cannot be procured from patients until they die. However, the more stringently followed component of the DDR, that individuals cannot be killed by organ donation, is still followed. Therefore, these practices seem to operate within some confines of the DDR. The procurement of organs would not lead to the death of these organ donors. Rather, the independently determined withdrawal of life-sustaining treatment more proximately causes the death of these patients.

The pre-mortem donation of non-vital organs provides us with a new, ethically defensible way to increase the organ pool without causing harm to or-

gan donors. Further, it promotes the autonomy of dying patients, giving them the opportunity to offer life to others through an organ donation process that is free of harm.

THE HARM PRINCIPLE IF THE DDR WERE ELIMINATED

Due to the DDR's current inability to adequately protect donors from harm, some have argued for the elimination of the DDR from the ethical framework that governs the organ procurement processes [8,9,11]. If the harm principle alone were used to oversee organ donation, all of the procurement options and guidelines discussed above would remain acceptable. However, additional options for organ procurement would become available.

Pre-Mortem Donation of Vital and Non-Vital Organs

A controversial proposal to provide patients with the option to donate all of their organs while still alive (yet imminently dying) has been lead by Franklin G. Miller and Robert D. Truog [8]. These scholars build their argument on the foundational claim that withdrawing life support is not merely "allowing the patient to die," but is in fact a justifiable "killing" of the patient. Dan Brock has also made coinciding arguments, stating, "The distinction between "killing" and "allowing to die" is conceptually confused and mistaken" [1,30]. If the withdrawal of care is a justifiable killing of patients (as medical practice indicates), Miller and Truog contend that so too could be the killing of patients via organ donation (in restricted cases under a strict consent process). Frankly, many patients consent to organ donation but, after withdrawal of care, do not die quickly enough for their organs to retain viability and be donated. In these circumstances, a prohibition of pre-mortem organ donation restricts the dying patient's ability to have their wishes to donate their organs be expressed. Pre-mortem donation of vital organs would promote patient autonomy by providing these patients with an option to die painlessly from consensual organ donation, rather than from the sometimes drawn-out process associated with the withdrawal of life-sustaining treatment.

As a safeguard to the utilitarian killing of individuals for their organs, discussions to donate pre-mortem could only begin after the decision to withdraw life-sustaining treatment were independently agreed upon by the patient and the health care team. After that decision is made, the patient could be approached with the option to die via organ donation, rather than die via withdrawal of care. In these cases, patients would be taken into the operating room, and all of their procurable organs would be removed under full anesthesia. The procurement of vital organs (the heart and lungs) would naturally result in the death of the donor. If these organs were not donated, then a post-procurement withdrawal of life-sustaining treatment would directly lead to the patient's death.

The use of a stringent informed consent process (requiring informed patient consent, living will authorization, or informed surrogate consent), along with the administration of anesthesia, would satisfy the first and second components of the harm principle, respectively. In addition, these protocols would provide dying patients with increased autonomy in the end of their lives, giving them the altruistic option for organ donation that would, under the DDR, be otherwise forbidden.

Pre-Mortem Donation of Vital and Non-Vital Organs for Persistent Vegetative State Patients

Just as ICU patients could choose to die from organ donation rather than from the withdrawal of life sustaining treatment, persistent vegetative state (PVS) patients could also be provided with this option. As seen in the famous Terri Schiavo case, the decision to withdrawal life-sustaining treatment from PVS patients can result in a drawn-out starvation process, slowly leading to an eventual death. Rather than restricting the inevitable death of PVS patients to starvation and dehydration, the pre-mortem donation of organs offers a quicker and more humane death.

In contrast to conscious patients who would choose pre-mortem donation, PVS patients have no current interests to protect. But, as with other unconscious patients, the previously expressed interests of these patients (expressed through a living will or through surrogate decision-makers) must be respected. In addition, anesthesia ought to be used as a safeguard to prevent even the remote chance of physical harm. These provisions would satisfy the harm principle, adequately protecting organ donors.

A Uniform Procurement Process

It should be noted that the elimination of the DDR would drastically simplify organ donation processes across the board. Without the need to declare death, all donors could be brought to the operating room with active cardiopulmonary function. Since organ procurement is a justifiable cause of death in some cases, the same procurement procedure that is commonly used for brain dead donors could be used universally. Anesthesia would be required for all patients who are not beyond harm (all non-brain dead donors). While procurement does not affect the declaration of death for brain dead donors, it would effectively lead to the death of still-alive donors. Therefore, although the harm principle permits some DCDD donations, such practices are impractical without the requirements of the DDR. It would be gratuitous for organ procurement teams to withdraw the life sustaining treatment of DCDD donors, wait for their "permanent" death, and then re-start life sustaining treatment in preparation for procurement. Such processes would probably no longer be used if the DDR were revoked.

MOVING FORWARD IN OUR CULTURAL CONTEXT

Due to the overpowering utilitarian appeal of an increased organ donor pool, the criteria used to declare death have been altered to permit the procurement of organs earlier in the dying process. These practices have opened the door to potentially harmful organ procurement operations, where both the interests and physical well being of organ donors are jeopardized. However, to satisfy the DDR, these patients are still officially declared dead. It would be ethically ideal to revoke the DDR, and use only the harm principle to regulate organ donation. The primary role of ethical guidelines in organ procurement is the protection of the donor. The harm principle, used without the DDR, completely fulfills this role. Further, revocation of the DDR provides the medical profession with an opportunity to "come clean" with the public, instead of operating under the "moral and legal fiction" that organ donors are always dead when their organs are procured.

However, removal of the DDR and admittance of its fabrications could create serious public distrust of the medical profession, leading to a general reluctance to donate organs. Politically, the revocation of the DDR would be characterized as an infringement on one's right to life, and would lack initial support. In addition, guidelines dictated by the harm principle are crude and need to be further developed. Pre-mortem donation of vital organs, once publicly known and accepted, could be used by patients as a motive to pre-maturely justify their own determination to withdraw life-sustaining treatment. In other words, individuals may consent to the withdrawal of life-sustaining treatment sooner in their course of care than they otherwise would have, if there were no prospect for pre-mortem donation. Thus, safeguards need to be developed to increase the usefulness of the harm principle.

Although the DDR is imperfect and fosters public deception, its abolition seems unlikely, given the cultural shift required for its acceptance. Therefore, use of the DDR and the harm principle in conjunction would be ideal. Even with the DDR in place, the harm principle is able to additionally protect the interests and prevent the physical harm of organ donors, primarily by limiting DCDD donation. Further, its promotion of patient interests provides organ donors with more autonomy at the end of life. While this approach is not without limitations, it may be the most practically and politically feasible, offering adequate and expedient protection from harm for organ donors. Until public acknowledgement of the flawed death declaration criteria and the inadequacies of the DDR become widespread,

this proposal will, for now, serve as an adequate "halfway" approach, ensuring the protection of organ donors from harm.

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