

ETHICS CASE

Should Trauma Physicians Treat a Severely Injured Patient for the Sake of Elucidating Preferences about Organ Donation?

Commentary by Sandra R. DiBrito, MD, and Macey L. Henderson, JD, PhD

Abstract

Organ donation potential is not a motivator of care in the trauma bay, and it is ethically problematic to consider organ donor potential during the active resuscitation of a trauma patient. Despite organ donation being a public good, the role of the trauma physician is to maintain focus on the patient as an individual and to respect a patient's right to life and autonomy. This tenet of medicine is the foundation of the trust that a community and individuals must have in order for the health care system to function. Fortunately, there are guidelines and systems in place to allow physicians to care for the patient in front of them while simultaneously making morally sound decisions regarding donation in the setting of the current organ shortage.

Case

A 35-year-old man presents to the trauma bay after a motor vehicle collision. Shortly after the wreck, his vehicle burst into flames. He was trapped inside until he could be extricated by emergency medical services personnel. He was unresponsive at the scene, intubated, and brought to a nearby level I trauma center. Initial trauma assessment suggested no evidence of intrathoracic or intra-abdominal injuries. He did, however, have 90 percent total body surface area of mostly third-degree burns, so the burn surgery team was consulted to assess the patient. The burn surgery attending physician felt that the man's burn injuries would be fatal, so he did not recommend further fluid resuscitation (i.e., administration of large volumes of intravenous fluids, necessary for supporting circulation in the context of a large burn and hemodynamic instability).

The trauma and burn teams both agreed to transitioning goals of care for this patient to comfort measures only. No family members were present, nor was it clear whether anyone had been notified regarding this man's injuries or condition. Also unclear was this man's preference concerning whether to donate his organs. He was taken to the intensive care unit, where he died shortly thereafter. For this patient, it is likely that temporary fluid resuscitation would have delayed his death, allowing for time to elucidate his preferences for organ donation and to determine whether he was an appropriate candidate for organ donation.

Commentary

The American Medical Association (AMA) *Code of Medical Ethics'* Opinion 6.2.1, "Guidelines for Organ Transplantation," states that in all professional relationships between a physician and a patient, "the physician's primary concern must be the well-being of the patient" [1]. As a result, organ donation potential is not a motivating factor in the trauma bay. Such a motivation would also be ethically problematic during the active resuscitation of a trauma patient. While organ donation is a [public good](#), a trauma physician motivated by the potential for organ donation places herself in conflict with her duties to the patient, specifically, the obligation of respect for persons. This principle of medical ethics is the foundation for the proper functioning of the physician's role as a fiduciary and, by extension, of the health care system as a whole. This principle, bolstered by federal guidelines and other systems in place, provides physicians the ability to care for patients without subjecting them to moral hazard regarding organ donation in the setting of the current organ shortage.

Hospital Procedures for Communicating about Organ Donation

In this case, clinical and professional ethics require that the health care team treat the trauma patient with all life-saving means until declared [brain dead](#), or until the patient becomes at risk of imminent death in a situation of anticipated cardiac demise [2]. It is not until brain death, cardiac death, or imminent death that organ donation is discussed or considered in the trauma setting. Honoring the "dead-donor rule" is paramount in maintaining public trust in the national organ donation and health care systems [3, 4]. In all instances, it is critical that members of the health care team avoid perceived or actual conflicts between caring for the patient and facilitating organ donation; therefore, health care professionals providing care at the end of life should be distinct from those participating on the transplant team. No member of the transplant team may have any role in the decision to withdraw life support or in the process leading to pronouncement of death. Federal regulations stipulate, "*No physician or nurse or any other caregiver in the hospital is allowed to make decisions about patient medical suitability for any type of organ, tissue or eye donation*" [5; italics in the original]. Rather, communication about organ donor potential and authorization conversations are the responsibility of one of 58 federally designated organ procurement organizations (OPOs) [6, 7]. Although there is evidence that some trauma surgeons would embrace having a role in organ donation requests—either alone or with an OPO representative—and believe that they could influence a family's decision, they are not part of the current organ procurement process in the United States [8]. Indeed, there are federal regulations in place to guard against the physician requesting authorization for organ donation from next of kin [5].

At the time of imminent death, hospitals are instructed to alert the appropriate OPO, which will begin to facilitate the communication about organ donation. Only an OPO staff member or a trained, designated requester (a person who has completed a course on approaching potential donor families and requesting organ donation that is offered or

approved by the OPO and designed in conjunction with the tissue and eye bank community) may approach the family of a potential donor for consent for organ, tissue, or eye donation [5]. This requirement is intended to ensure an informed and uncoerced decision; it recognizes that training and skill are required to guide a family through the decision-making process and effectively removes the influence of the treating care team. In this way, distance is maintained between the physicians providing potentially life-saving trauma care and the OPO staff discussing organ donation decisions with the families who could provide authorization for organ donation after death.

With the enactment of [first-person authorization](#) or donor designation legislation came changes in the way in which OPOs approach families of patients whose legally expressed decision was to become an organ donor upon their death. Unlike before, when the OPO had to request family permission for donation regardless of the patient's legally expressed decision to donate, OPOs must now inform families of the patient's decision to donate, although familial authorization is still sought [9]. Families are also notified because donation impacts end-of-life planning, such as funeral arrangements. All 50 states, the District of Columbia, and the US Virgin Islands have enacted this legislation, according to Donate Life America [10]. It has also been shown that first-person authorization legislation increases the likelihood of familial authorization and satisfaction with the final donation outcome [9].

Federal regulations also dictate the process of organ procurement in donor hospitals [5]. OPOs are required to screen all hospital deaths for potential organ and tissue donation. However, in the trauma setting, a very timely evaluation is important to increase the likelihood of meaningful recovery of organs such as kidneys, liver, lungs, and heart with acceptable ischemia time. It is important to note that individual OPOs and hospitals have specified clinical triggers that should prompt physicians to contact the OPO regarding patients that are nearing death. Physicians are encouraged to contact the OPO within one hour of imminent death [5], so it is not imperative that physicians wait until the patient has been declared dead before initiating the donation process. The goal is to allow time for the discussion to take place between the patient's family and the OPO staff and to decrease potential organ ischemia time.

Organ donation after cardiac death (DCD) is not optimal but remains a valuable source of organ donation in the acute trauma setting. In DCD cases, more ethical, clinical, and logistical challenges emerge for OPOs and physicians [2]. Two primary ethical issues concern conflicts of interests and the timing of organ recovery. As the dead-donor rule must be maintained (and donors in cases of DCD should only be declared dead after the permanent cessation of circulatory function), permanence is generally established by a two-to-five-minute waiting period. Because the preparation for organ recovery in DCD cases begins before the declaration of death, there are potential conflicts between the donor's and recipient's interests.

Timing is critical. Unfortunately, as soon as the patient expires from cardiac death, as would be anticipated in this case scenario, the organs are not perfused and begin to suffer from ischemia. Longer ischemia time is associated with worse outcomes for potential organ recipients, and thus timely organ recovery is imperative in DCD circumstances [11]. Therefore, the hospital and its physicians need to act quickly to contact the OPO, attempt to reach the patient's next of kin to inform them of the imminent death of the trauma patient and, at the same time, care for the patient to the best of their ability. Studies have demonstrated that referral from the emergency department (ED)—and for trauma patients specifically—is associated with greater likelihood of successful organ retrieval than referral from inpatient settings, possibly because ED referral leads to earlier identification of potential donors and earlier OPO involvement [12]. Physicians tend to assume that families would be averse to making this decision so shortly after an ED death, but this assumption was not borne out in recent studies of family member preference [13, 14]. Families who discussed more topics and had more conversations related to organ donation and who spent more time with OPO staff were more likely to donate [14].

Analysis of Ethical Issues in this Case

Nonmaleficence. It is the primary responsibility of the trauma team to provide optimal care for the patient. Prolonging the patient's life by extending futile care maneuvers could harm the patient, exposing that patient to unnecessary pain and suffering and thus violating the principle of nonmaleficence [15]. The concern about providing futile care should be a priority of the trauma surgery team, and the patient's death, if inevitable, should be supported in the most comfortable and respectful manner possible [16]. Such support would likely not involve use of an invasive technique (e.g., getting access for IV fluids), transferring the patient to an intensive care unit, and waiting an undetermined amount of time while physicians searched for organ donation wishes, family members, or other information required for donation, all while the patient could be suffering from a mortal injury. As Wall et al. remind us, "Protocols must instill faith that all life-sustaining measures were exhausted before death and that once futility is determined according to evidence-based guidelines, organ preservation may ensue in an ethical manner while maximizing the potential for graft survival" [17]. After making the patient comfortable, donor hospitals that inform the OPO of a potential donor in a timely fashion should potentially allow for OPO evaluation even before cardiac death occurs.

Respect for patient and family. The physician team should be allowed to contact the patients' family or next of kin if possible to deliver news of imminent death. In this case, it is particularly relevant that the patient is unrepresented by a family member. A delay in identifying decision makers who can authorize donation can increase the amount of time it takes an OPO to begin these conversations. If a family member were readily available, the care team could contact the OPO and a discussion could take place promptly and

efficiently, potentially resulting in a higher likelihood of organ recovery. However, delivering information to a family about a patient's imminent death is a sensitive issue, and it is not appropriate to inquire about organ donation in the same breath as [delivering tragic news](#) to a family. Professional ethics and respect for the patient and family require that family members are given time—even a few moments—to process the news before they are approached about organ donation.

Balancing Public and Individual Needs in Organ Donation

It is the professional duty of the trauma physician to make ethical decisions regarding their patients, other vulnerable populations, and the public [18]. More than 125 000 people are on the national waitlist for organs; one organ donor can save eight lives and can also save or improve the lives of up to 50 people through the donation of tissue and eyes [19, 20]. Naturally, as organ donation can be viewed as a public good, the trauma team should contact the OPO in a timely fashion in this case. Timely notification requires the trauma team to recognize imminent death, make a definitive decision, and appoint a team member to contact the OPO. Without directing this responsibility to a team member, it will fall by the wayside in an acute resuscitation effort and increase the delay in potential organ donation. Any delay could compromise the ability to recover potential organs and would put the vulnerable population of patients on the organ donation waitlist at further risk of death.

Physicians have been significant contributors to public health outreach regarding deceased donor education. A recent study of the United Network for Organ Sharing database found that DCD increased from 3.1 percent to 14.6 percent of total eligible posttrauma donors between 2002 and 2013 [21]. Further studies demonstrate that educating emergency and trauma physicians on organ donation procedures dramatically increases the number of patients referred for donation and the number of organs ultimately recovered [22, 23]. Donation education interventions at the physician level help to keep the care team distinct from the organ donation team, to ensure tasks are appropriately delegated, and to mitigate ethical tensions among personnel when care of potential donors is required [24].

Final Considerations

Medical ethics requires that trauma physicians treat patients using all life-saving measures available before determining that death is unavoidable and considering potential organ donation. Although we might consider additional measures to prolong life for organ donation unethical, as they could interfere with the patient's dying process or leave the patient's loved ones uncertain about how and when death actually occurs, overall, American society tends to value the life and autonomy of each individual, and as such our care of patients in a traumatic situation must focus on the individual. As a public good, organ donation can be life saving for countless people on waitlists across the

country. Clear procedures in seeking organ donation can help mitigate these ethical tensions.

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