

# **Transplants, Autopsies, and Neo-Morts**

## **Philip A. Pecorino**

Recent advances in medical technology have provided humankind with possibilities and options in such large numbers and with such rapidity that often questions arise as to what would be the ethically correct way to realize some of these possibilities. The transplanting of human organs is one such advance which has encouraged us to hold out hope for members of the human community afflicted with various diseases for which there was no hope in the past. However, there are a number of questions concerning how those organs are to be obtained for transplantation that need to be answered. Moreover, there are other ways in which we now can use dead human bodies that raise ethical issues.

Until recently, when a member of the human community died, the most traditional manner in which the dead body was handled involved its ultimate burial or entombment or possibly its cremation. Occasionally, when there is need to obtain further information as to the cause of death, an examination of the dead remains must be made by a medical specialist. While such autopsies are carried out rather regularly, they are not performed routinely. In fact, while people are aware that dead bodies are subject to being autopsied, this possibility- does not come readily to mind when considering what is generally done with dead bodies. Burial is the most traditional and common method of disposition. Only within the last 25 years has an entirely new use for dead bodies or ways in which they will be treated come about, namely, to remove certain organs from them for the purposes of transplantation in order to assist other human beings in recovering their health. Rather spectacular advances in the ability of medical specialists to perform the physical procedures involved in transplantation have been accompanied by advances in overcoming the body's natural rejection of foreign material through the use of certain chemicals. With the publicity given these developments and the consequent increase in general awareness there has come a rapid increase in the number of people seeking aid through transplantation. The problem has arisen, a natural product of the success of the procedures themselves, that the present demand for organs far exceeds the supply. Because of a general insufficiency in the number of organs available, several remedies have been proposed which have in turn prompted heated debate over the various advantages and disadvantages. Some critics of the present voluntary system for the donation of organs have claimed that the system is too generous in respecting individual liberties through its insistence that individuals and their families explicitly make such offerings. This generous respect has led to not enough organs being available for the purposes of medical therapy. Other critics have found the present system not generous enough. In fact, some think it too restrictive in not granting enough respect for the religious beliefs and ethnic customs of the deceased people and their families. For those who seek to increase the number of organs available for transplantation purposes, two remedies appear to be the most popular. The first may be titled "presumed consent" and the second "routine salvaging." Each of the two proposed remedies represents a basic departure from the present voluntary system. Under "presumed consent," dead bodies would be used by medical authorities as those authorities see fit, unless the deceased

person or their next of kin explicitly indicated a substantial objection. It would be the reverse of the present voluntary system. The second proposal, "routine salvaging," would involve utilization of dead bodies as the medical authorities deem proper without regard to the wishes of the deceased persons or the next of kin's wishes. While each of these remedies might obtain larger numbers of organs for transplantation purposes and thus help restore the health of many human beings, many people still fear that the proposals present too drastic a change from the present voluntary system and involve a violation of proprietary rights of next of kin and the right of religious practice for the deceased and the next of kin as well. Before examining the merits and the disadvantages of these proposals, it would be instructive to survey the present situation and present set of options.

When human beings die, their dead bodies are referred to as "corpse" or "cadaver." Sometimes, utilizing a euphemism, the dead body is referred to as the "remains," a term most common in relation to funerals. What is done with such cadavers falls under the legislative guidelines established by the individual states. In general, the following things can be said. After the pronouncement of death, the accurate establishment of the cause of death is in order and legally required. The medical examiner will take control of the body in order to perform such an examination, unless the dead person had been under a doctor's care recently and the deceased's physician or hospital authority is willing to certify that the cause of death was natural or accidental. In the event of the suspicion of homicide, suicide, or contagious disease, or in cases involving worker's compensation, the corpse will fall under the control of the medical examiner for a thorough examination and determination of death. When a medical examiner takes control of the body, it is generally for a short period of time and after 24 hours to 72 hours, the body is given over to the next of kin for proper and final disposition.

Historically, the next of kin have exercised proprietary rights in the control of dead bodies. From a tradition based on decisions of the ecclesiastical courts comes the notion that the next of kin have not only the right or privilege, but the duty as well, to see to the proper disposition of the remains of their loved ones. It is to be noted that the rights exercised by the next of kin are proprietary rights and not property rights. A property right, if granted in control of a dead body, would make human beings into property. Property is that which can be bought or sold. In the United States, based upon the United States Constitution, human beings are not considered as property and neither are their bodies. Thus, human beings are not to be bought or sold whether alive or dead. Consequently, a person may not indicate in any binding way the manner in which their body is to be disposed of through a document, such as a will, which controls only the disposition of property. Individuals may indicate in such a document or in some other form what they wish would be done with their dead body; however, the next of kin are not bound, except morally, to follow such instructions. The only cases in which next of kin have been legally encouraged, if not obliged, to dispose of the dead body of a relative have been in cases where real property assignment was made or decreed contingent upon the next of kin's performance of certain acts after the death of the person who made the will. It is clear then, that up until 1968, and in most cases thereafter, individuals have had no legal way to direct the disposition of their dead remains. Since 1968, individuals may

legally indicate that they wish their whole body or certain parts thereof to be utilized for medical purposes involving either therapy or education. This limited control is the outcome of the passage by all fifty- states of what is known as the Uniform Anatomical Gift Act (1968). More will be said about this act later.

Far less often than dead bodies are autopsied by medical examiners are dead bodies given over to a medical institution for the purposes of experimentation, research or education. Individuals may now indicate through the execution of a uniform donor card or other legal document that they wish the whole of their dead body be given over for such purposes after their death. Bodies that are not claimed by any next of kin after varying amounts of time, ranging from thirty to ninety days after the time of death, may also be used for such purposes although, again generally speaking, such bodies are not in a condition to permit much valuable research or education to be accomplished. In the absence of an explicit objection, the next of kin may also make such a donation of an entire body to medical science, although this is very rarely done.

There are reports of individuals who have requested that their bodies be placed in cryonic suspension, that is, "frozen." Such cases are very limited in number, involving no more than several dozen for the entire United States in more than two decades since the process became widely known. The process itself involves a very large initial expense of five to ten thousand dollars and an annual maintenance expense of several thousand dollars. Individuals who have such procedures performed usually do so with the expectation that at some time in the future, when a cure is discovered for whatever disease caused their death, their bodies will be thawed out, cured of the disease, and thus restored to life. Such individuals demonstrate more of a pathological denial of death than anything else. There is no known case of any animal, let alone human animal, surviving such a procedure. The procedure takes place after death has been declared and all heart and brain activity are totally absent. Then all the blood and body fluids are drained and liquid nitrogen and other chemicals are inserted within the body. The body is kept in that condition for some time and then the procedure is reversed, withdrawing the chemicals and reinserting blood and other fluids. No life form has been restored undergoing such a procedure. Some life forms, while alive, have had their bodily activities suspended through a rapid freezing process and after a gradual thaw has demonstrated life again. But the procedure discussed here with cryogenics is not the same. What motivates people to have their bodies frozen is not based on anything that modern science can support.

When someone dies, various sets of interests come into play and sometimes into conflict. There are the interests held by the individual who dies, that person's family and next of kin, and the state. Each of the holders of these interests has different value system which they hope to realize and act in accord with. No subsequent discussion of what legislative action regarding obtaining organs should proceed without reflecting upon these basic sets of interests. First then, most people would like to think that foremost are the interests of the individual person who may be concerned with the manner in which his or her dead body will be treated. The individual person may be so unconcerned for emotional reasons, for reasons of religious convictions and customs, out of concern for his/her own survivors, the ethnic customs or practices of his/her family, or simply for

aesthetic reasons. Individuals may or may not want certain things done with or to his/her body. The second set of interests are those of the family and the next of kin, who for reasons similar to the individual who died, may or may not want to have certain procedures performed with the dead body of their loved one. The third set of interests is those of the state which desires to have sufficient cadaver resources to fulfill the purposes of medical education. The fourth set of interests is again those of the state in securing control of dead bodies for the purpose of determining accurately the cause of death. This is especially the case with suspicion of homicide, suicide, or contagious disease. The fifth set of interests again are those of the state in securing a sufficient supply of cadaver resources for medical therapy, that is, for transplantation of organs and other uses of dead bodies for the benefit of other members of society. While it appears the state and its interests may outnumber those of the family and the individual who has died, nevertheless, at the present time, there is basically a voluntary system that has been created in the United States which acknowledges the right of the individual and the rights of the family to dispose of the remains. Only in cases involving suicide, homicide, contagious disease, and worker's compensation will the state take control of the dead body and then only for a short period of time.

The present voluntary system for dealing with the remains of human beings is that which the United States has in common with Great Britain, Ireland, New Zealand, South Africa, and several other nations of the world. Anyone over 18 years of age and mentally competent may fill out a uniform donor card or a facsimile thereof indicating on it that he/she desires his/her entire body or certain organs or parts thereof to be made available to medical authorities for therapeutic or research purposes upon his/her death. If such cards are found at the time of death and are properly witnessed by two people, the donation or gift may be accomplished. In the absence of such indication, the next of kin are entitled under the law to make such a disposition as well. The next of kin are defined by the various states, with minor variations, as the spouse or, following that person, the children of the deceased, then the siblings, then the grandchildren, then the grandparents. Where there is only one at the closest level of kinship, that person decides. Where there are two at the closest level of kinship, they must both agree. If there are more than two at the next level of kinship, a majority is required. If the person who is now deceased objected to the use of his/her body in any certain or particular way, then no such use could be made of the body if that objection were made known, although it is not clear how such objections are to be recorded and made known. Thus, under the present voluntary system, the individuals are given first privilege and acknowledgement in determining the disposition of their own dead bodies with regard to medical purposes.

The present system has a-number of problems with it. There has been an insufficiency in the cadaver resources made available under it. Second, the system has proven difficult to work with in a number of different ways. Third, since the law which established the system went into effect in 1968, several states have enacted different laws stipulating definitions of death which make donations made by people under the Uniform Anatomical Gift Act take on various meanings in the different states which the individual filling out the donor card may not have realized. Fourth, they have developed entirely new uses for dead bodies unforeseen in 1968 which the individual donor may not be

aware of and is now liable to be used for, concerning which the unsuspecting donors may have reservations.

The present system has not been working to provide us with a sufficient number of organs for transplantation. While many people are made aware of their right to donate through publicity campaigns and recent news stories featuring tragic, and at times miraculous, events and through the distribution of uniform donor cards with automobile operator licenses, still the vast and overwhelming majority of Americans have not been donating. Most donations of organs are made by the next of kin. In fact, regional transplant centers approach next of kin directly in cases of people who are being maintained in a coma and who are expected to die shortly, rather than search for a donor card. Most donations are achieved by members of such regional groups soliciting the donation from the next of skin who themselves may or may not have been aware of the wishes of their loved one. Highlighting the shortage of organs have been recent publicity campaigns conducted in various communication media by families of children in need of organs. While several such publicity campaigns have proven successful in obtaining organs for the individual children that prompted the campaign, many others have not. Such campaigns raise ethical questions as to whether or not those who have access to the media should be the ones to receive the organs first when other children who may be in greater physical need of organs, but without access to the media, would have to wait and perhaps die. Should the access that one has to the media be the determining factor in whether or not one obtains an organ? Others see such campaigns as being beneficial because they increase the awareness of the public as to the need for organs and encourage the public to make the donations.

To further illustrate the inadequacy of the supply of organs, there have been recent stories of attempts by some to create a system for the purchase of organs. Such proposals have provoked a great deal of criticism prompting legislative prohibitions. Further illustration of the lengths to which some people will go to obtain cadaver resources or organs for transplantation is the set of international agreements which the United States has with various countries, including Russia, for obtaining organs for transplantation. Occasionally, there will be a story of an organ transported across international borders to assist someone in the struggle to survive. The present voluntary system then is not working because not enough people are volunteering either their organs or those of their next of kin for transplantation purposes, while advances in science enable us to transplant more organs and overcome rejection factors within the body, steadily increasing the demand.

If the first set of objections concerning the inadequacy were not enough, there are other objections as well. But it is basically inadequacy of the present system to meet demands that has prompted the proposed remedies.

There are a number of physical difficulties involved in the operation of the present voluntary system. The uniform donor cards must be made available to medical authorities at the time of death. These cards, however, are often inaccessible as people are often involved in circumstances that have lead to their deaths where the cards would not

be available. Furthermore, the cards are easily altered or destroyed by next of kin or others who seek to thwart, for whatever purposes, the wishes of the deceased; that is, donor cards could be destroyed by those who do not wish to let the donation be known and objection cards could be destroyed by those who wish to have the objection go unnoticed in order to facilitate the donation. Attempts to remedy these physical problems through the creation of some central registry (involving hospitals linked nationwide by a computer system to a central data bank) lead to further criticism as to the cost and effectiveness of the operation of such a computerized system. The inefficiency of such large systems is too well known to too many people for them to place any trust in the accuracy and availability of the information to be contained within such a system. The present system of uniform donor cards, as the instrument for the making of the gift, serves mainly as an educational device. That is to say, people who fill out such cards educate others, whom they ask to witness such cards, as to their intentions, and distribution of such cards educates the public as a whole as to the need for such donations. However, nowhere do the cards (distributed by the regional centers and by the motor vehicle departments of the various states) indicate what possible difficulties lie in the making of donations of an organ or of one's whole body, nor do they indicate what religious obligations may be in opposition to the donation of such organs or entire bodies. Thus, on the one hand, the physical instruments serve as an educational instrument, while on the other, they educate only to a certain point and not at all on some of the issues which many people would consider the most significant issues involved in the entire donation process.

The next two difficulties with the present system are somewhat interrelated. In 1968, when the Uniform Anatomical Gift Act went into effect, there was only one way in which a person was pronounced dead in the United States, and that was a result of the cessation of heart and lung activity, permanent cessation, irreversible cessation. Since 1968, however, 37 states have enacted laws defining death in a formal, technical, and legal sense. Those states have enacted three different forms of laws to handle the problem of how we define the dead human being. The differences are not important for the present discussion. What is important, however, is that the states now permit a person who may have heart and lung activity sustained by machinery, but who has no brain activity whatsoever, to be declared legally dead. That person who is in a medical condition known as irreversible coma could be declared dead, though his/her body (other than the nervous system) demonstrated normal signs of organ activity. Thus, in those 37 states, the human being, who is without brain activity altogether, can be declared dead. The person with no nervous system functioning, but whose heart and lungs with other vital organs are kept functioning by machinery, could be maintained in such a condition for many years while being legally dead. This presents difficulties for the voluntary system which we have for the donation of organs. Previously, if a person were to donate the whole of the body for medical purposes after his/her heart and lungs had stopped operating completely, the body could be made use of for very limited purposes for a very brief period of time. A person who thus finds nothing objectionable in the immediate removal of an organ or in the investigation of his/her body- for the cause of death may be disturbed to learn that in some states of the United States, he/she may, if he/she has checked off that he/she wishes to have his/her whole body used for medical purposes, be

permitting the extended use of his/her dead body- for a large variety of uses in an indefinite period of time. This was not possible prior to 1968. Even now, some decades later, this is not that well known. It remains a problem where there is no uniform definition of death in the United States. Even if there were to be one uniform definition of death in the United States that would permit the use of the brain criteria, it would still leave the problem that many people aren't aware of what uses could be made of their dead bodies when their bodies are declared dead. It is upon these uses that we will now direct our attention.

In 1968, several social commentators, including the sociologist, Amitai Etzioni, declared that it was a terrible waste of resources to bury dead bodies when it was technically possible to maintain the major organ systems of the dead bodies with mechanical support for a variety of worthwhile purposes. First, such bodies could preserve organs for subsequent transplantation and beyond that, provide resources for medical education and research. While no formal name has been given to such a body, several names have been proposed, including "body factory" and "neomort." A body factory would be a dead body maintained on machines and kept partially functioning, except for the nervous system, for the purposes of manufacturing or producing substances which could be of use to other human beings, including blood, hormones, and organs. In 1974, an article entitled "Harvesting the Dead" appeared in HARPER'S magazine. In it, Dr. Willard Gaylin proposed another term for such bodies, "neomorts." "Neomorts," meaning "newly dead," carried with it two distinct meanings. First, "newly dead" means recently and under a new legal definition of death, namely the brain death criteria. "Newly dead" also means recently in time. These newly dead bodies would be warm cadavers. They would be respiring and circulating blood with mechanical assistance demonstrating normal body temperature, pulse, and other life signs, but no nervous system activity at all. These neomorts presently exist as people who are in irreversible coma but in those states which do not permit brain death criteria to be employed in pronouncement of death. They number nearly 150,000. Each year in the United States, through accidents involving damage to nervous system or diseases which impair the nervous system, 100,000 or more people could be pronounced dead under the criteria that looks to the brain and nervous system functioning as the most significant feature and characteristic of human life, the absence of which constitutes death. Thus, a community of these neomorts could easily be assembled in very large numbers and within a decade, they could number 1,000,000 or so. For what purposes, though, would such a large number of neomorts be assembled and maintained and would those purposes have benefits that outweigh the costs involved?

Neomorts could be used in order to train health care professionals, to perform experimentation on, to bank needed resources. These neomorts could be used to train surgeons in the performance of their surgical routines, even to train health care professionals in the examination of human bodies without having to risk endangering or embarrassing live human beings. These bodies would be susceptible to hemorrhaging if the surgical process were done wrong or, if a bone were not set properly within them, which would be evident. They, thus, provide valuable material for training purposes. The

neomort could also be used for experimental teaching without endangering the lives of human beings. New techniques of surgery could be developed through experiments that were more efficient, more effective, and less dangerous. New drugs could be tested on neomort bodies. Infection could be deliberately introduced and then fought with experimental drugs. These bodies could be used to maintain organs which may later be needed for transplantation, but at the present time, can only be accomplished if they remain within the human body. Thus, the banking function is established for neomorts. The banking function for neomorts would only be valuable if later the resources were actually harvested. The neomorts could be readily drained of blood in such large quantities that the voluntary blood drives, which are now conducted across the United States, would be made unnecessary. In fact, cost benefit analysis has shown that for the obtaining of the blood alone, the costs involved in maintaining a community of neomorts would be less than the benefits achieved. In obtaining blood from the neomorts where the blood and neomort would be examined carefully, the blood would be known to be free of hepatitis and other diseases which are transmitted along with blood transfusions. People of this country would no longer have to rely upon donations of blood nor upon questionable sources for obtaining blood if neomorts were used regularly to provide supplies. Nor would there be periods during which certain types of surgical procedures would have to be postponed for lack of sufficient blood supply, as now occurs during the summer months or at the end of the year. These neomort bodies could be used to harvest hormones to supplement those who cannot produce hormones on their own. These hormones could also be used in various cancer treatments. In addition, antibodies could be extracted from the bone marrow in order to build up the immune systems of those who are born with severe immune deficiencies; and as a diabetic takes insulin each day, these people with immune deficiencies would be able to live normal lives with regular infusions of immunological agents obtained from neomort bodies.

Beyond all these uses for neomort bodies is perhaps the most bizarre of all, which now is technically possible, but has not been actually accomplished the way which will now be described. A neomort body could be used as an incubator or a surrogate womb to bring a fetus to term. In fact, it is possible to take a sperm from a human male, alive or dead, combine it with the ovum from a human female, alive or dead, implant the resulting product into the womb of another human female, alive or dead, and have it brought to term. The normal hormonal triggers required for the development of the fetus in the womb of a dead human female could be artificially provided and thus, medical specialists could overcome the lack of a maternal nervous system. To demonstrate that such a thing is possible, one has only to look at the numerous cases already recorded of women who had entered into a condition of irreversible coma while pregnant and whose bodies were maintained mechanically, for over three months in one instance, for the sake of the fetal development.

Children have been born under such conditions to mothers who were either legally pronounced dead in those states which permitted it or kept partially maintained in irreversible comas in those states which did not permit them to be declared legally dead. Yet, in both instances, the mothers were in irreversible coma with no indication of any nervous system activity whatsoever.

How are dead bodies to be used? How are dead bodies to be obtained for such uses? Those who wish to donate the whole of their bodies for medical purposes must be made aware of the wide variety of purposes which their dead bodies could be made to serve. Those who are concerned that we are not obtaining sufficient cadaver resources for transplants and urge moving away from the voluntary system in order to obtain more organs usually overlook the uses which a neomort might be made to serve in order to get the public support for a non-voluntary system.

This present voluntary system for the donation of organs and bodies was not established with the consideration of the possibility of neomorts. There is no provision to permit a donor to place a limit on the uses to which the organ or body might be put, nor to permit a limitation on the length of time that the body might be used before it is given over to the next of kin for final disposition. For example, one could not donate his/her entire body only for 72 hours or for one week, nor could one indicate that he/she willed his/her entire body for whatever purposes except for the production of live fetuses from the womb or for new techniques of germ warfare for the military. Perhaps the Uniform Anatomical Gift Act could be amended by those who believe in the voluntary system in order to permit those limitations to be expressed or, for those who do not like the idea of neomorts at all, to limit the use of bodies to 24 hours or less, or 1(, the use of parts of the body and not the entire body.

There are those who would move away from the present voluntary system in order to obtain organs. They recommend that we presume that people would give consent unless they list their objections. Thus, they would move toward the use of the dead body in whole or in part as the medical authorities see fit, as is the case in France, Finland, Greece, Italy, Norway, Spain, Sweden, Austria, Czechoslovakia, and Denmark. This system works in a fashion that is the reverse of what is presently done in the United States: Unless there is an objection expressed by the individual or next of kin, the cadaver, in whole or in part is taken and used as the medical authorities see fit. The other system or proposed remedy is "routine salvaging" which is followed in Russia and Israel and which has been proposed in the United States. With the system of routine salvaging, regardless of objections, bodies are taken and used by the medical authorities as they see fit. This is the reason why there is no shortage of organs in Russia and why the Russians have generously offered to exchange organs with the medical authorities in the United States.

Problems exist in moving away from the present voluntary system because of the desires of individuals or their next of kin to direct the disposal of that individual's remains based upon religious convictions as is the case of Orthodox Jews, Jehovah Witnesses, Christian Scientists, and other religious groups, or based upon a concern for ethnic customs as is the case with many other groups of people. In light of these challenges to religious practices, would a non-voluntary system be constitutional? The constitutional right of religious freedom does not extend to the right of religious practice. In those cases where religious practices disturb the community's sense of morality, such religious practices can be prohibited by law. This is the case with the Mormons who believe that a man may have more than one wife, yet various states, including Utah, do not permit

polygamy. There is also the case of Pentecostalists who inflict venomous snake bites on their children as a part of a religious service to show that they are among the "chosen." This is also prohibited. Is the burial of dead bodies a practice that would offend the community's sense of morality and good order? Most people think not. Most people will agree that the burial of dead bodies has become the customary- practice and thus, provides the basis for the common order. It is the taking of dead bodies and not permitting the family to mourn and grieve and bury them, which would be the disturbance. To restrict religious practice, the state must be sure that only through taking control of dead bodies in the "routine salvaging" or "presumed consent" systems could sufficient organs be obtained. It is under conditions of extreme shortage and lack of cooperation that the states demonstrate that the order would be disturbed if the states were not permitted to take control of dead bodies to remove necessary organs or to use them for other therapeutic purposes which would include neomorts to be drained regularly, especially for rare blood types, antibodies, and hormones. This is the reason behind the states' effort to conduct a massive distribution and education program by attaching uniform donor cards to automobile operator's licenses. The states can now say, both individually and collectively, that they have made every effort to inform and obtain voluntary permissions, and these efforts have not worked to produce a sufficient number of organs; and only through the deliberate taking control of the dead bodies, despite objections, can the states obtain the supply of organs to meet the ever-growing demand.

Is this the way we would like to proceed, or is there any other way- of obtaining needed organs without overriding the individual's right to express his/her own values and act on his/her own religious convictions? Are we to be better off as a community of people who volunteer and give our organs or would we be better off as a community which takes what it needs despite the objections of others? It is probably true that human beings would grow accustomed to any of these systems given a long enough periods of time, but what would it turn us into in the long run if we were to become a people who took what was needed despite the objections of those from whom we took it? What would be the consequences of such actions on families who need to grieve and need to see the dead body and place it in a grave in order to begin the mourning process? What would the consequences be to those who wish to visit the remains of their loved ones and are not permitted to do so because their bodies are being used as neomorts?

It was once said that peace would finally be given to one through death. Gravestones were inscribed with the hopeful expression "R.I.P."--"Rest In Peace." Will the dead be left in peace? Will they and their families be permitted to seek their rest? Or will the bodies of the dead be taken and used for indefinite periods of time for an indefinite number of purposes? Are we to live and die in the service of the state? Once one could find "Uncle Sam Wants You" on signs encouraging young people to serve their country and save their fellow citizens in the armed service. Will the new signs read "Uncle Sam Wants You: Dead or Alive?"

## BIBLIOGRAPHY

Annas, George J. "Life, Liberty and the Pursuit of Organ Sales." The Hastings Center Report, Feb. 1984, pp. 22-23.

Caplan, Arthur L. "Organ Transplants: The Cost of Success." The Hastings Center Report, Dec. 1983, pp. 23-32.

Dukeminier, J. and Sanders, D. "Organ Transplantation: A Proposal for Routine Salvaging of Cadaver Organs." New England Journal of Medicine, 279 (1968), 413-19.

Gaylin, Willard. "Harvesting the Dead." Harper's, Sept. 1974, Vol. 249, No. 1942.

May, William. "Attitudes Toward the Newly Dead." The Hastings Center Studies, Vol. 1, No. 1, 1973, pp. 7-13.

Muyskens, J. "An Alternative Policy for Obtaining Cadaver Organs for Transplantation." Philosophy and Public Affairs, 8:1 (1978), 96.

Sadler, A. M., et al. "Transplantation: A Case for Consent." New England Journal of Medicine, 280 (1969), 862-67.

Sadler, Blair L. and Sadler, Alfred M. Jr. "Providing Cadaver Organs: Three Legal Alternatives." The Hastings Center Studies, Vol. 1, No. 1, 1973, pp. 14-26.

