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The Gift of Life: New Laws, Old Dilemmas, and the Future of Organ Procurement

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THE GIFT OF LIFE: NEW LAWS, OLD DILEMMAS, AND THE FUTURE OF ORGAN PROCUREMENT

The moonless midnight sky was still pouring a steady cold rain when the rescue squads arrived. The police were sealing off the area. A squad car's flashing red and blue lights passed across three lifeless bodies that were pulled from the wreckage of one car. In the other lane, paramedics worked feverishly to stabilize two critically injured survivors.

Fifteen minutes away, in a hospital across town, a mother and father share a lonely vigil with their critically ill seventeen year old daughter. They hope and pray that a kidney will become available soon: without it, their daughter will die.

Both teens from that night's accident died in the emergency room. Their grief-stricken parents cling together as they journey down the empty hospital corridor, numbed by the tragedy. The only comfort they find in their horrible loss rests in the knowledge that somewhere across town, a teenage girl will live again, and a blind mother will see her baby for the first time. Through death, their children live on.

In Ohio, the recent enactment of the required request law has already helped grieving families to grapple with a loved one's death.[1] Here and across the nation,[2] modifications to organ donation statutes may provide the impetus to change the way a seemingly willing, but apprehensive population views organ donation.[3] But the statutes governing this area are only one component of the fascinating concept of "giving life through death." Because a wealth of material already exists detailing narrow aspects of this area, the purpose of this comment is to present the reader with an informative overview of organ donation as it currently exists. Part I of this comment discusses the Uniform Anatomical Gift Act and Ohio's organ donation statute; Part II addresses the problems confronted in defining death; Part III examines the donation-transplant process; and, Part IV focuses on the future.

I. THE LAWS SURROUNDING ORGAN DONATION

A. *The Uniform Anatomical Gift Act*

As medical technology advanced,[4] the need for a uniform law governing

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[1] Prottas, *The Rules for Asking and Answering: The Role of Law in Organ Donation*, 63 U. DET. L. REV. 183 (1985).

[2] *See generally* Uniform Anatomical Gift Act, 8A U.L.A. 16 (1986) [hereinafter UAGA].

[3] Over seventy percent of all Americans have consistently demonstrated a willingness to donate their organs when polled. However, when specific organs, or when donating a deceased's relative's organs are mentioned, the positive response drops to fifty-six and thirty-six percent respectively. *See* Lee, *The Organ Supply Dilemma: Acute Responses to a Chronic Shortage*, 20 COLUM. J.L. & SOC. PROBS. 363, 367 (1986).

[4] Dunphy, *The Story of Organ Transplantation*, 21 HASTINGS L.J. 67. 94 (1969).

organ donation became increasingly apparent.[5] In August, 1967,[6] a conference of the Commissioners on Uniform State Laws set out to address the problem. The result was the nation's first organ procurement statute — the Uniform Anatomical Gift Act (UAGA).[7] Drafted in July, 1968,[8] the UAGA's fundamental purpose was to provide a "comprehensive approach to organ donation."[9] The statute's aimed to facilitate this goal by providing the legal framework under which donations could take place,[10] while maintaining respect for an individual's right to control the disposal of his body after death.[11] In 1969, thirty-nine states and the District of Columbia[12] adopted the Act, and by 1971, the remaining eleven states followed suit, adopting the Act relatively unchanged from its original form.[13]

The drafters of the UAGA were faced with the challenge of balancing several competing interests.[14] Among these were protecting the wishes of the deceased, acknowledging the wishes of the surviving family, and recognizing society's need for human organs together with the state's interest in executing successful organ procurement procedures.[15] Encompassing those concerns were a cluster of legal questions.[16] These ranged from elementary procedural questions, to legal and ethical concerns over what rights the surviving family possessed.[17] The UAGA attempted to address these questions and other aspects of organ donation within its structure.[18]

Since it has served as a national model for legislators in drafting state statutes, a brief survey of the Act is useful in understanding its scope.[19] Basically, the UAGA is divided into seven major sections which detail procedures for donating organs and other body parts.[20] Section 1 defines major terms that appear in the Act's subsequent provisions,[21] while Section 2 provides donor

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[5] *Id.* The number of kidney transplants increased by a factor of seventeen between 1967 and 1983. Lee, *supra* note 3, at 366.

[6] *Id.*

[7] *Id.*

[8] *Id.*

[9] Kramer, *The Professional's Role in Helping the Client and the Family Deal with Death*, 1986 N.Y. ST. B.J. 22.

[10] Dunphy, *supra* note 4, at 95.

[11] Leavell, *Legal Problems in Organ Transplant*, 44 MISS. L.J. 865, 866 (1973).

[12] Comment, *A Survey of the Legal Aspects of Organ Transplantation*, 50 CHI.-KENT L. REV. 510, 516 (1973).

[13] *Id.* In 1952, England became the first common law jurisdiction to address the removal of cadaver organs in its Corneal Grafting Act. *See* Lee, *supra* note 3, at 371.

[14] Uniform Anatomical Gift Act, Prefatory Note, 8A U.L.A. 16 (1986).

[15] *Id.*

[16] *Id.*

[17] *Id.*

[18] *Id.*

[19] Comment, *supra* note 12.

[20] UAGA 8A U.L.A. (1986).

[21] UAGA § 1, 8A U.L.A. 30 (1986). See Appendix A for the UAGA in its entirety.

criteria,[22] limiting donations to individuals at least eighteen years of age.[23] Also included in this section is a prioritized list of family members who are authorized to donate the decedent's organs.[24]

Donees of anatomical gifts,[25] as well as the purposes for which a gift may be used are addressed in Section 3.[26] Section 4 states that a gift may be made by will[27] or by signing a donor card in the presence of two witnesses.[28] Examples of donor forms are also included.[29] The remaining portions of the Act allow for the delivery of the gift-authorizing document,[30] the written or oral amendment or revocation of a gift[31] and outline the rights and duties of the donee upon death of the donor.[32] Finally, sections 8-11 detail information such as the statute's effective date[33] and proper citation form.[34]

Although the UAGA has been adopted nationwide,[35] subsequent variations have been made to this model in many states.[36] For example, Illinois adds to Section 1 its own subsection (g) defining death,[37] while California adds a section dealing with faith healing sects.[38] Perhaps the most consistent of the early additions to the Act were those providing for eye enucleation.[39] However, most deviations were minor.[40] Today, the most apparent modifications in state statutes are those which define death, outline organ procurement protocol, and prohibit organ sales.[41]

Despite its positive aspects, it cannot be denied that the Act is imperfect.[42]

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[22] UAGA § 2, 8A U.L.A. 34 (1986).

[23] *Id.*

[24] *Id.*

[25] A donee may mean the organ recipient or one of a variety of institutions which may accept the gift. UAGA § 3, 8A U.L.A. 41 (1986).

[26] *Id.*

[27] UAGA § 4, 8A U.L.A. 43 (1986).

[28] *Id.*

[29] UAGA § 4, 8A U.L.A. 43 (1986).

[30] UAGA § 5, 8A U.L.A. 55 (1986).

[31] UAGA § 6, 8A U.L.A. 57 (1986).

[32] UAGA § 7, 8A U.L.A. 59 (1986).

[33] UAGA § 8-11, 8A U.L.A. 67 (1986).

[34] *Id.*

[35] For a complete listing of jurisdictions adopting the UAGA *see* UAGA, 8A U.L.A. 15-16 (1986).

[36] UAGA, 8A U.L.A. (1986).

[37] *See generally id.*

[38] *Id.*

[39] *Id.*

[40] *Id.* For example, Alaska sets its minimum age for donation at nineteen years of age, while Oregon substitutes "adult" to designate a person eighteen years of age or older. UAGA, 8A U.L.A. 36, 39 (1986). Variations of this nature may be examined in full following each section of the UAGA.

[41] *Id.*

[42] *See generally* Prottas, *supra* note 8.

One of the Act's shortcomings lies with the donor card system.[43] Even though a signed donor card is a legally binding document,[44] almost no hospital or organ procurement facility will remove a donor's organs unless it can obtain consent from the next of kin.[45] In fact, only four states presently uphold the donor card as superior to the rights of the survivors.[46] Although the UAGA specifically protects physicians and donees from liability if the organ is removed in good faith,[47] most physicians are unwilling to become sandwiched in conflicts between family members, especially if the family is informed that a loved one's organs have been removed in accordance with a donor card.[48] Furthermore, many believe that it is proper for the family to have the last word on donation.[49] Consequently, the large supply of organs for transplant, which the Act was intended to provide, has not materialized.[50]

Another major criticism of the Act has been its failure to furnish physicians with a legally and medically acceptable definition of death.[51] Because various definitions of death exist,[52] it is impossible to determine from the Act

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[43] *Id.* at 185. *See also* Schwartz, *Bioethical and Legal Considerations in Increasing the Supply of Transplantable Organs: From UAGA to "Baby Fae,"* 10 AM. J.L. & MED. 397, 405-406 (1985).

[44] Prottas, *supra* note 1, at 185.

[45] *Id.* at 188.

[46] Lee, *supra* note 3, at 379.

[47] Leavell, *supra* note 11, at 879-80. Because of the UAGA's provision of limited liability, not much case law has arisen in general organ procurement matters. However, there are some related instances where suit has been brought. In Williams v. Hoffman, 66 Wis. 2d 145, 233 N.W.2d 844 (1974), the plaintiff's wife was admitted to the hospital with a brain hemorrhage. She was placed on a respirator and was pronounced dead at 8:20 a.m., almost two days later. The plaintiff authorized the removal of his wife's organs for transplant purposes. After making funeral arrangements, he learned that his wife's body was not at the morgue. The plaintiff discovered that his wife had been sustained on the respirator until 9 a.m., and that her organs were removed at 8:35 a.m., despite the fact that she had been declared dead at 8:20 a.m. The plaintiff brought suit alleging wrongful conduct in connection with the removal of his wife's organs. In the pertinent portion of this case, the court held that the terms of the Uniform Anatomical Gift Act did not apply to "treatment of the donor prior to death" and that the limited liability section was not a valid defense in this matter. *Williams*, 66 Wis. 2d at 150, 233 N.W.2d at 846. In Colton v. New York Hosp., 98 Misc.2d 957, 414 N.Y.S.2d 866 (N.Y.Sup. 1979), the plaintiff donated a kidney to his dying brother. Prior to surgery, he signed a document that was a covenant not to sue the hospital in connection with the transplant surgery. The plaintiff did not recover consciousness until ten days after the surgery, and discovered that he was deaf as a result of the surgery. The plaintiff and his wife brought suit against the hospital for medical malpractice and loss of consortium. The court found the covenant valid, holding that it was intended to protect physicians from non-negligent conduct under circumstances where a patient voluntarily agrees to undergo an inherently dangerous procedure. *Colton*, 98 Misc.2d at 969, 414 N.Y.S.2d at 876. However, the agreement did not bar the wife's claims because she had not signed the document. *Id.* For a discussion of the rescue doctrine as applied to organ donors, *see* Salhus, *Survey of New York Practice*, 57 ST. JOHN'S L. REV. 805, 862 (1983).

[48] Prottas, *supra* note 1, at 188.

[49] *Id.* at 186.

[50] Schwartz, *supra* note 43, at 404-05.

[51] Comment, *supra* note 12, at 521; Leavell, *supra* note 11, at 883; Schwartz, *supra* note 43, at 416. Death is discussed in detail in Part II of this comment.

[52] Smith, *Legal Recognition of Neocortical Death*, 71 CORNELL L. REV. 850, 850-51 (1986).

which standard is to be applied.[53] As a result, many states,[54] including Ohio,[55] have adopted "whole brain death"[56] as the standard for determining death.[57] A corollary issue to these concerns is the problem of protecting the rights of the near-dead.[58]

Still other critics maintain that the UAGA's greatest failure is not in its lack of definitions, but in its inability to substantially increase the supply of transplantable organs.[59] These critics suggest that the reason for the supply shortage is the public's lack of awareness[60] and its unwillingness to donate.[61] Much of this unwillingness has been attributed to religious convictions[62] and the fear of death.[63] Proposals to remedy the situation have ranged from structuring new amendments to the Act[64] which would permit organ sales,[65] to requiring compulsory donation.[66]

Although these criticisms are legitimate, the significance of the Act cannot be underestimated. Despite its shortcomings, it has helped to save thousands of lives, encouraged medical research, and provided a model for state legislators.[67] Without a model from which to work, chaos, rather than uniformity may have resulted, crippling any attempt at a national organ procurement effort. Furthermore, at the time of its inception, it would have been difficult for its drafters to anticipate and provide for every contingency within the Act when constant improvements in medical technology were redefining the outlook on organ procurement. In attempting to resolve these lingering concerns, many

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[53] UAGA, 8A U.L.A. (1986).

[54] Prottas, *supra* note 1, at 189.

[55] Comment, *Classification of Critically Ill Patients: A Legal Examination*, 24 ST. LOUIS U.L.J. 514, 552-53 (1980). *See generally* OHIO REV. CODE ANN. § 2108 (Baldwin 1969 & Supp. 1986).

[56] Brain death is defined as either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessations of all functions of the entire brain, including the brain stem. Schwartz, *supra* note 43, at 418.

[57] Smith, *supra* note 52.

[58] Quay, *Utilizing the Bodies of the Dead*, 28 ST. LOUIS U.L.J. 889, 896-97 (1984).

[59] Comment, *Retailing Human Organs Under the Uniform Commercial Code*, 16 J. MARSHALL L. REV. 393, 399 (1983). *See also* OHIO REV. CODE ANN. § 2108.30 (Baldwin Supp. 1986).

[60] *Id.* at 403.

[61] *Id. Compare with* Lee, *supra* note 3, where polls indicate that the willingness to donate differs depending upon the questions asked.

[62] Bazil & Goldberg, *ISBA Moves to Eliminate Roadblocks to Organ Donation and Transplantation*, 1985 ILL. B.J. 372, 374 [hereinafter cited as Bazil]. *See also* Prottas, *supra* note 1, at 188; Note, *The Sale of Human Body Parts*, 72 MICH. L. REV. 1182, 1210 (1974).

[63] Bazil, *supra* note 62.

[64] Quay, *supra* note 58, at 900.

[65] Note, *supra* note 62, at 1216. Organ sales are discussed in more detail in Part IV of this comment.

[66] Dukeminier, *Supplying Organs for Transplant*, 68 MICH. L. REV. 811, 837-38 (1970). *See also* Note, *Compulsory Removal of Cadaver Organs*, 69 COLUM. L. REV. 693, 705 (1969).

[67] Dunphy, *supra* note 4, at 95.

states like Ohio, have enacted new provisions to their organ procurement statutes.[68]

B. *Ohio's Anatomical Gift Act*

In Ohio, Chapter 2108 of the Revised Code provides the regulations for making an anatomical gift.[69] Its provisions are substantially the same as those of the UAGA.[70] Section 2108.01 defines various terms which appear in the Code, such as storage facility, decedent donor, hospital, and part.[71] Section 2108.02 permits eighteen-year-old individuals to make a gift, and authorizes the next of kin to do so as well.[72] This section also outlines what a donee may do[73] and expressly states that the coroner's rights are paramount to those of the donee.[74] Section 2108.03 states that organs may be donated to physicians, hospitals, accredited medical or dental schools, storage banks, or even to a specific individual.[75] Along the same lines, Section 2108.07 gives the donee discretion to accept or reject a gift.[76]

The remaining sections of the Code address procedural matters. For example, Section 2108.04 states that a gift may be made by will or by signing a valid driver's license or donor card.[77] Section 2108.05 provides for delivery of these documents, while Section 2108.06[78] addresses amending or revoking a gift. Other related Sections in this Chapter include: 2108.21, which provides for blood donation; 2108.11 which states that furnishing blood is not a sale; and 2108.071, (added in 1975) which provides for eye enucleation.[79]

The most important alterations to the Code appear in the 1986 supplement.[80] Minor changes in text appear in Section 2108.10, which incorporates a redesigned donor form that now permits the donor to specify how his body should be disposed of after donation.[81] Similarly, Section 2108.21 reduces the minimum blood

[68] *See generally* OHIO REV. CODE ANN. § 2108.01-2108.10 (Baldwin 1969 & Supp. 1986).

[69] *Id.*

[70] UAGA § 1, 8A U.L.A. 30 (1986).

[71] *See generally* OHIO REV. CODE ANN. § 2108 (Baldwin 1969 & Supp. 1986).

[72] OHIO REV. CODE ANN. § 2108.02 (Baldwin 1969 & Supp. 1986).

[73] *See id.* at § 2108.02 (C).

[74] *See id.* at § 2108.02 (E).

[75] OHIO REV. CODE ANN. § 2108.03(D) (Baldwin 1969).

[76] OHIO REV. CODE ANN. § 2108.07 (Baldwin 1969).

[77] OHIO REV. CODE ANN. § 2108.04 (Baldwin 1969 & Supp. 1986). As of 1985, forty-five states provided organ donation forms on the back of driver's licenses. Schwartz, *supra* note 43, at 405-406. The states which do not are Delaware, Florida, Hawaii, Nebraska, Nevada and Pennsylvania. *Id.* Only Michigan, North Dakota, and Wyoming do not distribute donor cards. *Id.* at 406. Illinois, on the other hand, encloses donation literature with its driver's license renewal forms. Bazil, *supra* note 62, at 373.

[78] OHIO REV. CODE ANN. § 2108.06 (Baldwin 1969).

[79] OHIO REV. CODE ANN. § 2108.21, 2108.11, 2108.71 (Baldwin 1969 & Supp. 1986).

[80] *See generally* OHIO REV. CODE ANN. § 2108.021 (procurement protocol), and § 2108.30 (definition of death) (Baldwin Supp. 1986).

[81] OHIO REV. CODE ANN. § 2108.10 (Baldwin Supp. 1986).

donor age to seventeen, and affixes a clause that controls blood donations in schools.[82] Overall, four notable additions have been made to the Code.[83] Section 2108.53 allows for the removal of the pituitary gland and Section 2108.60 allows a coroner to remove corneas from the decedent.[84] However, the two most significant additions are found in Section 2108.30, which defines death, and in Section 2108.021, which codifies organ procurement protocol.[85]

Ohio has adopted the whole brain death definition of death.[86] Revised Code Section 2108.30 states in part:

> An individual is dead if he has sustained either irreversible cessation of circulatory and respiratory functions or irreversible cessation of all functions of the brain, including the brain stem, as determined in accordance with accepted medical standards. If the respiratory and circulatory functions of a person are being artificially sustained, under accepted medical standards a determination that death has occurred is made by a physician by observing and conducting a test to determine that the irreversible cessation of all functions of the brain has occurred.

This definition provides physicians with an accurate criteria for determining death.[87] Its adoption was requisite to ensuring the smooth operation of the statute.[88] Prior to this time, a legally and medically acceptable definition of death did not exist in Ohio, making physicians skeptical about their liability for decisions made in organ procurement situations, despite the Code's limited liability provisions and the lack of litigation in these cases.[89] It has been suggested that a uniform determination of death throughout the United States will only help to enhance the availability of transplantable organs.[90]

Perhaps the most significant addition to the Code is the Ohio legislature's adoption of House Bill 770 — the Required Request law, which, in effect, forces hospitals to ask the decedent's family for his organs.[91] The law was enacted in response to statistics indicating that only twenty percent of families who had

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[82] OHIO REV. CODE ANN. § 2108.21 (Baldwin Supp. 1986).

[83] *See generally* OHIO REV. CODE ANN. § 2108 (Baldwin Supp. 1986).

[84] *Id.*

[85] *Id.*

[86] Ohio Revised Code Section 2108.30, which defines death, became effective on March 15, 1982. OHIO REV. CODE ANN. § 2108.30 (Baldwin Supp. 1986).

[87] Smith, *supra* note 52, at 854-55. *See also* Prottas, *supra* note 1, at 188.

[88] Part II of this comment addresses the problems encountered in making a determination of death under the UAGA.

[89] Lee, *supra* note 3, at 378. Factors which have been attributed to minimal litigation in transplant matters are: the close relationship between a physician and his patient; the lack of a definite standard of care, and, the patient's low expectation of success. *Id.* at 378-79.

[90] Smith, *supra* note 52, at 856.

[91] Akron Beacon Journal, Dec. 21, 1987, at C3, col. 2.

lost loved ones were approached by hospitals to donate organs.[92] Briefly, the new law requries that hospitals develop protocols for organ and tissue removal in conjunction with other organ procurement organizations.[93] The enactment states that hospitals must identify the circumstances under which an organ may be requested[94] and requires that families of potential donors must be made aware of the option to donate.[95] Organ Procurement Agency officials or representatives are in the primary position to make the request,[96] however, hospital administrators may also do so.[97] Under required request, families of potential donors may not be approached if the decedent had made it clear that organ donation was against his wishes.[98] Today, over forty states have enacted required request laws[99] and administrators involved in organ procurement are pleased with the results to date, and are hopeful that the organ supply will steadily increase as a result.[100]

C. *The National Organ Transplant Act*

Stemming from its concern about the organ supply shortage, which it attributed to a lack of organization in the nation's procurement efforts, Congress created the National Organ Transplant Act in 1984.[101] The primary purpose of the Act was to develop a national organ network and transplant registry that would evaluate the effectiveness of transplant procedures.[102] Through the Act, Congress also hoped to establish Organ Procurement Organizations (OPOs) patterned after the successfully operated independent kidney Organ Procurement Agencies (OPAs).[103] Unfortunately, to some degree, the Act has failed.[104] The task force it established was given discretion to study the issues it deemed important,[105] and as a result, the task force neglected to seek solutions to resolve the serious demand for organs.[106] The force's lack of direction suggests that its true value was in Congress' willingness to expand the government's role in organ procurement, rather than its effectuating an increase in the number of transplantable organs.[107]

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[92] *Bill Lives On*, HOUSE CALLS, Autumn 1987, at 19. Ohio Revised Code Section 2108.021, which outlines organ protocol procedures, became effective on March 17, 1987. OHIO REV. CODE ANN. § 2108.021 (Baldwin Supp. 1986).

[93] OHIO REV. CODE ANN. § 2108.02(1)(b) (Baldwin 1969 & Supp. 1986).

[94] OHIO REV. CODE ANN. § 2108.21(B) (Baldwin Supp. 1986).

[95] *Id.*

[96] *Id.*

[97] *Id.*

[98] *Id.*

[99] *Bill Lives On*, *supra* note 92.

[100] Akron Beacon Journal, *supra* note 91. *See also* Ehrle interview, *infra* note 184.

[101] Lee, *supra* note 3, at 387-88.

[102] *Id.* at 388.

[103] *Id.*

[104] *Id.* at 388-90.

[105] *Id.* at 390.

[106] *Id.* at 389.

[107] *Id.* at 390. The reader may infer the Act's failure after reading pages 388-390.

In spite of the deficiencies these combined acts present, progress continues to be made in the organ procurement system as its objectives and its role in society is refined. One long awaited improvement is discussed in the following section.

II. DEATH

A. *What is Death?*

"Death is an event where medicine, religion and law meet around a human being in his last minutes."[108] The supernatural has been associated with death and corpses from the earliest of times,[109] and though there are no property rights in a dead body,[110] the law has always protected the right of possession for burial purposes.[111] "Death triggers important legal consequences."[112]

The problem with death is how and when it occurs. Diverse definitions have attempted to give it meaning. *Black's Law Dictionary* defines death as, "The cessation of life; permanent cessations of all vital functions and signs."[113] Death has also been described as termination or extinction,[114] the ". . . suspension or cessation of vital processes of the body, as heart beat and respiration,"[115] and, as an "[i]rreversible cessation of all functions of the entire brain, including the brain stem . . . ."[116] Advances in life support technology have only compounded the problem.[117] It has been stated that "[s]ociety is willing to declare a patient dead when there is no possibility of recovery of consciousness,"[118] but the advent of life support systems suggests that "[t]he modern definition of death must often depend on whether the mechanical devices are minimizing the suffering, or preserving the life of a potentially salvageable individual, or whether they are merely sustaining the existence of a hopelessly tortured and essentially destroyed entity."[119]

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[108] Biorck, *When is Death?*, 1968 WIS. L. REV. 484, 497.

[109] Sideman & Rosenfeld, *Legal Aspects of Tissue Donations From Cadavers*, 21 SYRACUSE L. REV. 825, 830 (1970) [hereinafter cited as Sideman].

[110] *See generally* 14 O. JUR. 3d *Cemeteries & Dead Bodies* § 1, 5 (1979). Although there were no property rights in a dead body at common law in England, a trust concept existed whereby the person who claimed the body was said to be holding it in "trust" for the benefit of relatives and friends. Wasmuth & Stewart, *Medical and Legal Aspects of Human Organ Transplantation*, 14 CLEV. MARSHALL L. REV. 442, 450, 452. American courts subsequently adopted this concept. *Id.* at 452. Early American cases indicate that a quasi-property right vested in the next of kin and arose out of the duty to bury the dead, but that view was later changed to a qualified property right. *Id.* Today, there exists no property right in a dead body. *Id.* at 453.

[111] *Id.*

[112] Smith, *supra* note 52, at 852.

[113] BLACK'S LAW DICTIONARY 360 (5th ed. 1981).

[114] THE AMERICAN HERITAGE DICTIONARY 339 (1976).

[115] Richards, *Medical-Legal Problems of Organ Transplantation*, 21 HASTINGS L.J. 77 (1970).

[116] Schwartz, *supra* note 43, at 417.

[117] Schneck, *Brain Death & Prolonged States of Impaired Responsiveness*, 58 DEN. U.L. REV. 609, 622 (1981).

[118] Richards, *supra* note 115, at 102.

[119] *Id.*

In light of these various definitions,[120] the Uniform Determination of Death Act (UDDA) was adopted in Ohio and twenty-five other states including the District of Columbia.[121] By June, 1985, the remaining thirty-nine states had passed legislation defining death.[122] The UDDA states, "An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessations of all functions of the entire brain, including the brain stem, is dead."[123] This definition has become known as "brain death."[124] Coupled with this definition is the "Harvard Criteria"[125] which outlines four key elements physicians may use in ascertaining death:

1. Deep unconsciousness with no response to external stimuli or internal need;
2. absence of movement and breathing;
3. lack of reflexes in the body; and,
4. flat or isoelectric electroencephalogram made twenty-four hours apart serving as a useful and confirmatory evidence of death.[126]

Despite the advances states adopting the brain death definition have achieved, complications arise under circumstances where the patient is placed on life support[127] because brain death is not the only form of death which may occur.[128]

B. *Stages of Death*

The legal profession views death as something happening at an "instant"

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[120] *Id.*

[121] Smith, *supra* note 52, at 854-55. *See also* Friloux, *Death, When Does it Occur?*, 27 BAYLOR L. REV. 10, 17 (1975).

[122] Prottas, *supra* note 1, at 189.

[123] Schwartz, *supra* note 43, at 418.

[124] Smith, *supra* note 52.

[125] Richards, *supra* note 115, at 102.

[126] *Id.*

[127] A patient may be placed on life support due to natural causes or due to unfortunate circumstances. In cases where a shooting has occurred, the death of the victim often results in litigation. For example, in People v. Bonilla, 97 A.D.2d 396, 467 N.Y.S.2d 599 (1983), a shooting victim's kidneys were removed after it was determined that the patient was in an irreversible coma. The issue arose as to whether the defendant could escape a conviction of first degree murder because of the physicians' decision to terminate life support. The court held that the bullet wound was the proximate cause of death and that the defendant was properly convicted. *Bonilla*, 97 A.D.2d at 409, 467 N.Y.S.2d at 608. *See, e.g.*, Strachan v. John F. Kennedy Memorial Hosp., 209 N.J. Super. 300, 507 A.2d 718, where a shooting victim was maintained on life support for days because the hospital did not have the proper consent forms authorizing termination available for his parents to sign; New York City Health & Hosp. Corp. v. Sulsona, 81 Misc. 2d 1002, 367 N.Y.S.2d 686 (N.Y. Sup. Ct. 1975), where a shooting victim's organs were not removed in time due to a controversy over the legal definition of death; State v. Long, 7 Ohio App. 3d 248, 455 N.E.2d 534 (1983), where the court determined that the last element of aggravated vehicular homicide did not occur until brain death was declared. However, at least one jurisdiction has agreed with a defendant that removing life support systems was the sole cause of death. See Commonwealth v. Golston, 373 Mass. 249, 256, 366 N.E.2d 744, 749-50 (1977), *cert. denied*, 434 U.S. 1039 (1978).

[128] Smith, *supra* note 52.

or "moment,"[129] but the medical profession sees death as a continuing process[130] where man dies in stages.[131] Medical authorities agree that multiple kinds of death occur at different stages in a progression from clinical to brain to biological to cellular death.[132]

Clinical, or cardiopulmonary death occurs when the vital functions of respiration and circulation cease.[133] The brain dies almost immediately following clinical death because a fresh supply of oxygen is critical to its survival.[134] The brain itself dies in stages[135] and may take hours, days, or weeks to complete the process.[136] When all the brain's components have died, whole brain death has occurred,[137] and biological death may be declared.[138] Cellular death, the final stage, occurs when artificial means are no longer employed to maintain circulation and respiration, resulting in a slow deterioration of the body's tissue.[139]

It is the gray area within whole brain death which has sparked concern among the medical profession.[140] Because the brain dies in stages, it is possible for its higher functions to die while the brain stem survives.[141] Although the cortex may be dead, launching the patient into a state of irreversible unconsciousness, the brain stem will continue to control the vital functions of respiration, blood pressure and temperature.[142] This type of death is termed "neocortical death"[143] and it presents a legal, medical and ethical dilemma.[144] This dilemma arises in part from the peculiar characteristics of neocortical death.[145] The patient is essentially in a vegetative state when only the brain

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[129] Friloux, *supra* note 121, at 10.

[130] *Id.*

[131] Hirsch, *Brain Death*, 1975 MED. TRIAL TECH. Q. 377, 378.

[132] *Id. See also* Friloux, *supra* note 121, at 11.

[133] Hirsch, *supra* note 131. *See also* Smith, *supra* note 52.

[134] Without a fresh supply of oxygen, the brain cannot survive beyond six to ten minutes. Hirsch, *supra* note 131.

[135] *Id.* at 379.

[136] How quickly the brain dies depends upon a number of factors which include age, physiology, constitution, and environment. *Id.*

[137] Smith, *supra* note 52.

[138] Hirsch, *supra* note 131, at 379.

[139] *Id.*

[140] Smith, *supra* note 52, at 875.

[141] *Id.* at 857.

[142] *Id.*

[143] *Id.* at 851.

[144] *Id.* at 875. Presently, physicians are unable to diagnose with one-hundred percent certainty the absence of consciousness and cognition, but they are able to diagnose a state of irreversible unconsciousness. *Id.* at 878-79. Such a diagnosis is performed by positron emission tomography (PET) which allows physicians to accurately determine neocortical death. *Id.* at 879. The scan, which measures metabolic brain function, costs approximately $1000, but is nominal compared to the average cost of $10,000 per month to maintain a patient on life support. *Id.* at 883.

[145] *Id.* at 857.

stem survives, but his body can remain biologically alive as long as intravenous feeding, antibiotics, and a respirator are maintained.[146]

Many experts believe that neocortical death should be treated in the same fashion as whole brain death since they claim what really survives is a "mindless organism."[147] However, since neocortical death is not legally recognized, the fate of patients sustained on life support equipment[148] becomes entangled with clinical parameters[149] and legal definitions of death.[150] The dilemma has originated a widespread belief that the medical profession routinely practices passive euthanasia.[151] Meanwhile, as doctors, lawyers and the courts battle over who has the last word,[152] families of the unfortunate "victim" could face costs as high as $10,000 per month to sustain a dying relative who has no real hope of recovery.[153] Moreover, the interpersonal and emotional considerations in borderline cases weighs heavily upon the profession as a whole.[154] Although almost ninety percent of physicians feel comfortable with the brain death concept,[155] they still express fears about their legal liability in declaring death in organ procurement matters.[156]

In answer to this problem, in 1986, the American Medical Association Council on Ethical and Judicial Affairs (AMA) determined that doctors can withhold or withdraw artificial feeding from terminally ill patients.[157] However, legal

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[146] *Id.* See Part IV of this comment for a more detailed discussion of biomorts.

[147] *Id.* at 858.

[148] In one case, an eighty-three year old patient was sustained on a respirator for 114 days beyond his family's request to terminate treatment. Although the patient died during the court proceedings ordering his treatment terminated, the family incurred expenses of $87,000 in medical bills and $20,000 in reduced legal fees. Schneck, *supra* note 117. Similarly, in Leach v. Akron General Medical Center, 68 Ohio Misc. 1, 426 N.E.2d 809 (1980), a terminally-ill patient was sustained on life support equipment for a period of over four months at an approximate cost of $500 per day. However, orders authorizing termination may be an indicator that courts agree that sustaining a person or infant in a vegetative state serves no purpose. *E.g.*, *In re* P.V.W., 242 So.2d 1015 (La. 1982), the parents of a newborn, who was severely brain damaged and dependent upon a respirator for survival, were authorized to remove life support; *In re* Torres, 357 N.W.2d 332 (1984) life support ordered terminated on a patient who was irreversibly unconscious; *In re* Dinnerstein, 6 Mass. App. Ct. 466, 380 N.E.2d 134 (1978), order not to resuscitate patient with Alzheimer's disease in noncognitive vegetative state. For a more detailed look at this perplexing situation, *see Smith*, *supra* note 52.

[149] The four clinical parameters used to determine death are: (1) pupillary light reflex; (2) corneal blink reflex; (3) withdrawal movements of limbs; and, (4) verbalization of any type. Schneck, *supra* note 117, at 623. When all four are present, seventy-four percent of patients have demonstrated good recovery, while twenty-six percent were left severely disabled. *Id.* When none of these elements exist, ninety-six percent of patients die, while the remaining four percent are severely disabled. *Id.*

[150] Smith, *supra* note 52, at 874.

[151] *Id.* at 874-75. *See also* Brown & Truitt, *Euthanasia and the Right to Die*, 3 OHIO N.U.L. REV. 615 (1976) [hereinafter cited as Brown]. Even when perpetrators are caught, they are treated with sympathy. *Id.* at 616.

[152] Smith, *supra* note 52, at 622, 690.

[153] *Id.* at 883. *See also* Schneck, *supra* note 117, at 623.

[154] Prottas, *supra* note 1, at 191.

[155] *Id.* at 189.

[156] *Id.* at 190.

[157] Smith, *supra* note 52, at 876-77.

and constitutional concerns over the patient's right to life continue to make the application of the AMA's proclamation difficult at best.[158] It remains to be seen whether adopting a neocortical death standard would alleviate the situation and dispel physician's fears of legal liability for actively declaring terminally ill patients dead.[159] Until that time, the whole brain death standard must suffice as the legal recognition of death.

III. TRANSPLANTS, DONORS AND THE ORGAN SHORTAGE

A. *History*

The notion of organ transplants is not new.[160] In fact, the Egyptians performed tissue transplants over 5000 years ago in an effort to reconstruct the decaying noses of syphilis victims.[161] Many centuries later, in the 1760's, unfortunate female servants had their teeth extracted for transplantation into the mouths of "fine" ladies.[162] By the late 1800's, skin transplants were performed,[163] but it was not until the turn of this century that techniques for actual vessel and organ transplants developed.[164]

In 1947, the first kidney transplant procedure was performed.[165] The kidney was attached to a blood vessel in the patient's arm.[166] Although it helped the patient recover from severe kidney failure, it was rejected several days later.[167] The first truly successful kidney transplant occurred in 1954 between identical twins.[168] By 1959, the discovery of immune suppressing drugs increased transplant success rates because physicians were able to control organ rejection in patients.[169] In 1967, the first successful heart transplant was achieved[170] and now, everything from the cornea to the liver may be transplanted.[171]

B. *Donors and the Transplant Process*

Perhaps the most limiting factor to any organ transplant is finding a suitable donor.[172] Of the estimated 22,000 potential organ donors nationwide, statistics

[158] *Id.* at 859.

[159] *Id.* at 874, 883.

[160] Dunphy, *supra* note 4, at 67.

[161] *Id.*

[162] *Id.*

[163] *Id.*

[164] In 1908, Dr. Charles C. Gutherie transplanted a dog's head from one dog to another. *Id.*

[165] *Id.* at 68-69.

[166] *Id.* at 69.

[167] *Id.*

[168] *Id.*

[169] *Id.* Today, Cyclosporine A helps fight rejection better than any other drug available, while reducing the patient's intake of other drugs. Schwartz, *supra* note 43, at 399.

[170] Richards, *supra* note 115, at 87.

[171] *Bill Lives On*, *supra* note 92, at 21.

[172] *Id.*

show that only 4,000 actually become donors.[173] As a result, one out of every three patients waiting for a donor organ dies.[174] The United States operates the largest organ procurement effort in the world,[175] but in 1986, only 7000 kidneys were received from cadavers while 10,000 persons remained on a waiting list.[176] As early as 1968, a Gallup Poll disclosed that up to seventy percent of all Americans were willing to donate organs[177] and although that figure has remained substantially unchanged today,[178] the organ shortage persists. It has been attributed to everything from individual morals[179] to a lack of active involvement in the donation process.[180]

Ohio has hoped to remedy at least a portion of this problem with the recent enactment of its required request law.[181] Ron Ehrle, R.N. is the Organ Procurement Coordinator for LifeBanc[182] and is based at Akron City Hospital. He, like others involved in the coordination of transplants,[183] believes that the new law will help to increase the short supply of organs.[184] Of those families he has approached since the new law became effective,[185] between eighty and eighty-five percent felt that organ donation had been a positive experience, and that it helped to ease their grief.[186]

Nurse Ehrle explains that a typical kidney transplant procedure lasts approximately thirty hours from inception to completion.[187] Once a suitable donor[188] is available, permission to remove the deceased's organs must be ob-

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[173] Akron Beacon Journal, *supra* note 91.

[174] *Id.*

[175] 52 Fed. Reg. 28,666 (to be codified at 42 C.F.R. Part 405, Subpart U).

[176] *Id.* Today, over 120 OPAs are in operation in the United States. Lee, *supra* note 3, at 384-85. These agencies may be either hospital based or independent, and all are nonprofit and entirely federally funded. *Id.*

[177] Bazil, *supra* note 62. Studies show that the number of donations between family members is on the rise, and that primary donors are "female, highly educated, wealthy and white." Lee, *supra* note 3, at 368.

[178] *Id.* at 367.

[179] Petty & Heck, *Life From Death — The Ultimate Goal of Transplantation*, 27 N.Y.L. SCH. L. REV. 1207, 1213 (1982) [hereinafter cited as Petty].

[180] Lee, *supra* note 3.

[181] OHIO REV. CODE ANN. § 2108 (Baldwin 1969 & Supp. 1986).

[182] For more information about donating organs in Ohio, contact LifeBanc at 1-800-558-LIFE, or locally at 375-3299.

[183] Akron Beacon Journal, supra note 91.

[184] Interview with Ron Ehrle, R.N., Organ Procurement Coordinator for LifeBanc, Akron, Ohio (Jan. 15, 1988).

[185] *See supra* note 92.

[186] Ehrle interview, *supra* note 184. *See also* Petty, note 179, at 1219.

[187] Ehrle interview, *supra* note 184.

[188] Persons dying of systemic infection involving the kidney, cancer, or a transmittable disorder are not considered suitable donors. Richards, *supra* note 115, at 79.

tained.[189] Although kidneys are removed most frequently,[190] skin and other organs are also considered for transplant.[191] Once the organs are removed, they are tissue and blood typed.[192] This information is analyzed against a listing of possible recipients who have already undergone the necessary typing tests.[193] Using a numbering system which coordinates a multitude of typing factors, a donor organ and donee with the closest match will be paired.[194] If two or more individuals qualify as potential recipients, the more critically ill patient will receive the organ.[195] Akron City Hospital performs kidney transplants,[196] and although it is not a formal member of the Ohio Solid Organ Transplant Consortium,[197] it offers its services regionally, making organs available for needy patients in other cities when a local match cannot be found.[198]

C. *Organ Sources*

The human cadaver is the major supply source for organ transplants.[199] It provides over seventy percent of all available kidneys for transplant.[200] Fresh organs have been credited with improving success rates in patient transplants[201] and, the ideal donor has been described as "[a] young person who dies as a result of a brain tumor, an accident, or in the course of cardiac surgery."[202] For obvious reasons, persons dying of systemic infection involving the kidney, cancer, or a transmittable disorder are not considered suitable donors.[203]

Another source of transplantable organs is the live donor.[204] Live donors may offer tissue, blood, plasma and other bodily fluids for donation in most states, including Ohio.[205] Live organ donors are typically those individuals who

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[189] Neither the donor's family nor his estate incur costs for the surgical procedures involved in removing the organs. Also, pursuant to Ohio Revised Code Section 2108.07(B), the physician determining death does not participate in the removal of organs or the transplant procedure. Ehrle interview, *supra* note 184.

[190] *See* Appendices C and D for statistics.

[191] Ehrle interview, *supra* note 184.

[192] *Id.*

[193] *Id.*

[194] *Id.*

[195] *Id.*

[196] *See* Appendix D.

[197] The Ohio Solid Organ Transplant Consortium is comprised of The Cleveland Clinic Foundation, University Hospitals, The University of Cincinnati Medical Center, and Ohio State University Hospitals. Ehrle interview, *supra* note 184.

[198] If a match cannot be found locally, other hospitals within the consortium are contacted first, then regional hospitals, and finally, a national network is offered the organ. Ehrle interview, *supra* note 184.

[199] Note, *Consent and Organ Donation*, 11 RUTGERS COMPUTER & TECH. L.J. 559, 559-60 (1985).

[200] Schwartz, *supra* note 43, at 399.

[201] Hirsch, *supra* note 131, at 382.

[202] Richards, *supra* note 115, at 79.

[203] *Id.*

[204] *Id.* at 78.

[205] Petty, *supra* note 79, at 1210.

have decided to donate a kidney to a dying relative.[206] The majority of donors are happy to see the organ recipient improve.[207] However, in some instances, relatives apply extraordinary pressure on an individual to donate an organ to a dying relative when no suitable donor match can be found.[208] For that reason, donors are psychologically tested to determine whether they will be able to withstand the stress of the transplant operation and the treatment which follows.[209] Pressures to donate also appear in situations where the individual may not be of age or mentally competent.[210] The preference of a minor or incompetent has been rationalized into a "substituted judgment" theory and is predicated upon what the person would do if he were of age or competent.[211]

The final sources of organs are artificial organs and animals donors.[212] The immediate problem with artificial organs is that many are not available,[213] and those which are must be tested before they can be transplanted.[214] Even implants like the Jarvik-7 have met with only limited success.[215] Xenografts, or "donors of other species,"[216] have been only nominally successful.[217] For example, a baboon heart was transplanted into a human patient to assist a failing heart, but the patient died.[218] Similarly, when a chimpanzee heart was

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[206] There is much suspicion concerning live, unrelated donors because of the motives involved in such a donation. Schwartz, *supra* note 43, at 429.

[207] Note, *supra* note 62, at 1199.

[208] *Id.*

[209] *Id.* at 1207; Ehrle interview, *supra* note 184.

[210] *See generally* Baron, *Medicine and Human Rights: Emerging Substantive Standards and Procedural Protections for Medical Decision Making Within the American Family,* 17 FAM. L.Q. 1 (1983).

[211] In Strunk v. Strunk, 445 S.W.2d 145 (Ky. 1959), the court permitted an incompetent to undergo transplant surgery which required the removal of his kidney. The kidney was to be transplanted in his ailing brother. The court held that the doctrine of "substituted judgment" applied in this case. *Id.* at 148. The court based its reasoning on the benefit the incompetent would receive in helping his brother, determining that the donor would have made the same decision if he were competent. *Id.* at 146. Similarly, in Little v. Little, 576 S.W.2d 493 (Tex. Civ. App. 1979), a girl with Down's Syndrome was permitted to donate a kidney to her brother based upon the benefit theory. The benefit theory has also been used in the case of healthy minor siblings; in Hart v. Brown, 29 Conn. Supp. 368, 289 A.2d 386 (Super. Ct. 1972), two eight-year-old identical twin girls were permitted to undergo a kidney donation-transplant procedure. In contrast, in Lausier v. Pescinski, 67 Wis. 2d 4, 226 N.W.2d 180 (1975), the court emphasized the importance of receiving the donor's consent and denied the transplant of a kidney from a thirty-nine-year-old schizophrenic man to his thirty-eight-year-old sister stating that the man would receive no benefit. *See also* In re Richardson, 284 So. 2d 185 (La. Ct. App.), *cert. denied,* 284 So. 2d 338 (La. 1973), where the court denied a retarded seventeen-year-old boy to donate a kidney to his thirty-two-year-old sister. For further information on the substituted judgment and benefit theory, *see also* Note, *Constitutional Law: Substantive Due Process and the Incompetent Organ Donor,* 33 OKLA. L. REV. 126 (1980). For a thorough discussion of the problems surrounding medical decisions for incompetents and minors *see* Baron, *supra* note 210.

[212] Schwartz, *supra* note 43, at 425.

[213] Richards, *supra* note 115, at 78.

[214] *Id.* at 79.

[215] Martyn, *Using the Brain Dead for Medical Research,* 1986 UTAH L. REV. 1, 2.

[216] Schwartz, *supra* note 43, at 430.

[217] *Id.* at 430-31.

[218] *Id.* at 430.

transplanted into a human, the patient died three days after the operation.[219] Many surgeons have abandoned xenografts because of the limited success of these operations and the ethics encircling them.[220] For example, Dr. Thomas E. Strazl has abandoned such procedures:

> [I]n a very serious emergency situation at one time, [I] did a chimpanzee heterograft to a child whose first human liver had failed, so we were really up against a wall. We got from the Air Force a chimpanzee that was three or four years old, and the chimpanzee was brought to Denver in a cage and was brought over to my house and had tea. It actually was able to have tea. When it was finished it made some human gestures and so forth. It was so human, it was uncanny. I was really uneasy about taking that little chimpanzee's liver. I would never do it again. It's too close to being human.[221]

Dr. John Najarian, the surgeon who transplanted a baboon heart into Baby Fae, stated, "I think that this xenograft is premature because I am not aware of any finding in the clinical literature that suggests anything but this prevailing rule — the human body will reject a transplanted animal organ."[222] Although artificial and animal organs can, and sometimes do act as a source of organs, at this stage, they cannot effectively substitute for human organs.

Unfortunately, even those transplants involving human organs are not without pitfalls. In general, the problems with these transplants are three-fold: (1) organs have a very short "shelf-life";[223] (2) despite public opinion polls, people are reluctant to donate;[224] and (3) transplants can be financially and emotionally costly.[225]

D. *Other Obstacles*

Aside from the obvious problem of locating "fresh" organs is the fact that they do not remain fresh for very long.[226] Unlike blood, solid organs cannot be "banked" and stored for extended periods of time.[227] Kidneys must be transplanted within forty-eight hours; the liver within twelve hours; and the heart within only four to six hours.[228] Although no special facility is needed

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[219] *Id.*

[220] *Id.*

[221] *Id.* at 430-31.

[222] *Id.* at 430.

[223] Ehrle interview, *supra* note 184.

[224] Bazil, *supra* note 62.

[225] *Bill Lives On*, *supra* note 92.

[226] Ehrle interview, *supra* note 184. The critical temperature for most tissues is in the 25°C. (77°F.) to 15°C. (59°F.)range. Wasmuth, *The Concept of Death*, 30 OHIO ST. L.J. 32, 35 (1969). Some tissues, like the skin and cornea, can be stored at temperatures of around 4°C., but corneas must be transplanted as soon as possible, while the skin may survive up to three weeks. *Id.*

[227] Schwartz, *supra* note 43, at 399.

[228] Ehrle interview, *supra* note 184.

to remove an organ,[229] an experienced surgeon should perform the operation to ensure that the organ and its delicate vessels are not damaged.[230] Although an organ's rapid deterioration is a problem, it appears small in comparison to the ethical considerations involved in organ donation and transplant decisions.[231]

While millions of Americans claim they are willing to donate their organs, misconceptions and fear sometimes overpower an individual's will.[232] Among these fears are: beliefs that the body will be mutilated;[233] the organs will be sold;[234] medical care will be substandard if doctors know the patient is a donor;[235] the organs will be removed before death has occurred.[236] Above all else is the simple fact that most people just don't want to think about death.[237] Similarly, religious suppositions play a major role in influencing a family's decision to donate, regardless of whether a deceased or living donor is involved.[238] In the case of a deceased loved one, donation competes with the family's ethical considerations which might encompass a host of elements such as honoring the deceased's wishes, fulfilling the deceased's commitments, protecting the integrity of the corpse, and providing a fitting removal of the body from society.[239] Ironically, and contrary to most people's knowledge, many major religions view organ donation favorably.[240]

Another limiting factor in organ transplants is the cost involved,[241] and many organizations are tightening their purse strings.[242] As of October 1, 1987, Medicare reimbursement for transplants will depend upon whether hospitals performing the procedure have a required request policy in effect.[243] As a result,

[229] Schwartz, *supra* note 43, at 400.

[230] Ehrle interview, *supra* note 184.

[231] Bazil, *supra* note 62.

[232] *Id.*

[233] *Id.*

[234] *Id.*

[235] Lee, *supra* note 3, at 369. *See also* Schwartz, *supra* note 43, at 421.

[236] Bazil, *supra* note 62.

[237] Note, *supra* note 62.

[238] Lee, *supra* note 3, at 369; Schwartz, *supra* note 43, at 428.

[239] Schwartz, *supra* note 43, at 422.

[240] Most Western religions have no problems with organ donation. *Id.* at 423. Protestants take a liberal view stating that organ donation is "ethically acceptable, but that it may be morally mandated to prevent wasting human bodies." *Id.* at 428. The Jewish faith allows donation to help another person only if "the probability of saving the recipient's life is substantially greater than the risk to the donor's life or health." *Id.* Finally, Catholic theologians set out a list of four criteria which must be met for donation: (1) "There must be a serious need on the part of the recipient that cannot be fulfilled in any other way; (2) the functional integrity of the human person may not be impaired, even though anatomical integrity may suffer; (3) the risk taken by the donor as an act of charity must be proportionate to the good resulting for the recipient; and (4) the donor's consent must be free and informed." *Id.*

[241] *See* Appendix C.

[242] This proposition is supported by the fact that group insurance plans, such as Blue Cross, provide guidelines for usual and customary charges, and each year group participants are provided with policy supplements detailing those services which are no longer covered through the plan.

[243] *Bill Lives On*, *supra* note 92.

those critically ill persons in need of transplant surgery may never see their name on a waiting list unless their insurance will pay the bill.[244] The effect of the government's failure to set reimbursement guidelines for transplants is evident in the skyrocketing costs associated with this type of surgery.[245] In 1972, Congress agreed to pay 100 percent of the charge for kidney transplants through the Medicare program.[246] Although the decision appeared to be cost-effective on its face, the government did not anticipate the dramatic progress dialysis and transplant techniques would realize.[247] As a result, in 1982, Medicare costs for renal disease treatments reached $1.8 billion.[248]

In the face of these outrageous medical bills, society must seriously question whether government subsidies for organ transplants should continue when the limited financial resources presently available might benefit a larger percentage of the population if they were channeled into medical research in other areas.[249] However, the downside of removing government subsidies is no more attractive. With individual transplant procedures costing anywhere from $4000 for a cornea to a hefty $238,000 for a kidney and subsequent medical treatment,[250] organ transplants may no longer depend as much upon a suitable tissue match as they will upon a healthy wallet. Without government help, pricing may push transplants into the realm of the affluent or those individuals fortunate enough to have insurance coverage.[251]

Despite the fact that legislatures across the nation have adopted laws defining death,[252] and have forced hospitals to ask for organs,[253] there still remains a troublesome shortage. Costs are soaring, and at least some individuals advocate a new system to remedy the situation.

IV. THE FUTURE OF ORGAN PROCUREMENT

Today, between ten and twelve million Americans donate blood each year.[254] However, even paid blood donation has been termed a service rather than a sale.[255] While the UAGA remains silent on the issue,[256] Congress has passed a federal law prohibiting the sale of human organs, and most states have passed similar legislation.[257] Yet the fact remains that organs are scarce and as a result,

[244] Schwartz, *supra* note 43, at 402.

[245] Lee, *supra* note 3, at 383.

[246] *Id.*

[247] *Id.*

[248] *Id.*

[249] Note, *supra* note 62, at 1209. *See also* Schwartz, *supra* note 43, at 402, 404.

[250] *See supra* note 190.

[251] Note, *supra* note 62, at 1206.

[252] Prottas, *supra* note 1, at 189-90.

[253] *See generally* Uniform Anatomical Gift Act 8A U.L.A. 16 (1986).

[254] Petty, *supra* note 179, at 1210.

[255] *See generally* OHIO REV. CODE ANN. § 2108 (Baldwin 1969 & Supp. 1986).

[256] Note, *Regulating the Sale of Human Organs*, 71 VA. L. REV. 1015, 1016 (1985).

[257] *Id.* at 1015.

many persons who may have survived if an organ were available, have died. This problem has led many commentators to propose a variety of methods for increasing the supply, the foremost of which is organ sales.[258] Although the idea seems simple enough, it raises a host of legal, procedural, and ethical problems.[259]

A. *Brokerage Sales*

Apparently, some individuals have attempted to sell their organs,[260] despite the laws which prohibit them from doing so.[261] H. Barry Jacobs, an entrepreneur, made the first proposal for selling organs through a company that he planned to operate much like a brokerage house.[262] Jacobs would receive an estimated two to five-thousand dollars per transaction; the recipient would pay the charge.[263] Jacobs' proposal went as far to include third world countries and indigents in his plans.[264] He maintained that he would have no difficulty obtaining informed consent from illiterate, poor persons worldwide because he would record their verbal consent on tape. Jacobs referred to his plan as a "very lucrative, potential business."[265] Jacobs' proposal generated so much public outcry that the federal government banned organ sales.[266] Alternatives to a complete ban of sales, such as an open market system,[267] have been suggested despite Congress' decision.

B. *The Open Market*

It is believed that the open market approach to buying and selling organs would increase the supply while eliminating doctor-patient-family frictions.[268] The open market system is based upon the assumption that people will gladly sell their organs or the organs of a deceased loved one. In reality, many people may not be willing to do so. Those who may have considered selling might believe that the demand has been met, while another group may feel that donated parts are of a better quality than those which are sold.[269] Furthermore, religious beliefs will no doubt enter the decision making process.[270] In addition, a dif-

[258] *See generally* Schwartz, *supra* note 43; Note, *supra* note 256; Dukeminier, *supra* note 66.

[259] *Id.*

[260] Note, *supra* note 256 at 1012.

[261] Lee, *supra* note 3, at 401.

[262] Note, *supra* note 256, at 1021.

[263] *Id.*

[264] *Id.*

[265] *Id.* at 1022.

[266] *Id.* at 1022-24.

[267] *See supra* note 258.

[268] Note, *supra* note 62, at 1220.

[269] *Id.* at 1224.

[270] *Id.* at 1193.

ferent set of obstacles arise when the donor is living and the product is not one that is self-replicating.[271] In any case, the idea is fraught with problems.[272]

The most prevalent problem anticipated is that the "poor and powerless" would sell their body parts.[273] Therefore, not all organs offered under an open market system may be acceptable because the donor might be malnourished, a drug user, diseased or otherwise unhealthy.[274] While screening may detect unsuitable donors, the profit to be made might encourage other unhealthy individuals to conceal medical records.[275] Another complication associated with accepting organs from the poor is that taking the organ could subject the person to great health risks after surgery is completed.[276] Ethical concerns are heightened by the realization that the white upper class is likely to become the major purchaser of these organs, while poor minorities are likely to become the major donors.[277]

Furthermore, legitimate sales could increase the abortion rate.[278] When pregnant women, many of whom are single, struggling to pay the rent, and caring for an already large family, have an option to end their pregnancy at a profit, cash organ sales may present an all too attractive alternative.[279] In addition, women not living under impoverished conditions may see a pregnancy-abortion routine as a lucrative method of earning extra cash.[280]

In turn, this situation could easily produce a black market in organ procurement, resulting in "unsavory trafficking," and even murder.[281] Although government controls and pricing could provide some safeguards for an open market system,[282] it is not unforeseeable that a monopoly in trade could result.[283] A related problem is that body parts can only be valued by those with experience.[284] Conscientious physicians participating in the valuation of organs would have little incentive to price healthy organs inexpensively, while unethical

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[271] *Id.* at 1217. The crime of mayhem may could become a problem with organs because they are not self-replicating. *Id.* at 1240. Mayhem is defined as, "the offense of willfully maiming or crippling a person," and has also been referred to as "willful, malicious and permanent disfigurement or disablement of the body." *Id.*; THE AMERICAN HERITAGE DICTIONARY 809 (1976).

[272] Note, *supra* note 62, at 1217.

[273] *Id.* at 1225. *See also* Schwartz, *supra* note 43, at 407.

[274] *Id.* at 1225.

[275] *Id.*

[276] Schwartz, *supra* note 43, at 408.

[277] Note, *supra* note 62, at 1217.

[278] Ehrle interview, *supra* note 184.

[279] *Id.*

[280] The author merely expands upon the potentially negative aspects of paid organ sales.

[281] The notion of selling organs raises the question of whether an individual's organs may used as collateral for purchases and loans. Note, *supra* note 62, at 1218.

[282] *Id.* at 1225.

[283] *Id.*

[284] Ehrle interview, *supra* note 184.

practitioners may extract organs from anyone interested in selling as long as profit might be had.[285] This scenario is potentially endless.

While an argument may be made that government involvement in the system would curb unsavory dealings, it would not necessarily guarantee an increase in the supply of healthy organs, nor would it ensure the market's safe, fair and efficient operation.[286]

C. *Alternatives to the Open Market System*

The open market system involving live donors is not the only solution offered to increase the nation's organ supply. Cadaver-only markets have been suggested as a way to avoid coercion of live donors into selling their parts.[287] However, there is no certainty that cadaver markets would prevent black market operations from supplying cadavers.[288]

Remuneration other than cash given to the family of the deceased, and even a trading system between live donors, has been suggested in an effort to reduce the organ shortage.[289] Likewise, presumed consent has been offered as an alternative to sales.[290]

Under presumed consent, organ removal would be routine upon a patient's death, unless the family or other responsible parties objected to the procedure.[291] However, even if it were in effect, this theory may prove to be of very limited value. For instance, in several areas of Europe, presumed consent is the law, but families are usually asked for permission to remove organs because social custom requires it.[292] In that respect, social custom negates presumed consent.[293] In addition, since it is believed that almost eighty percent of all families would donate organs today, it is unlikely that presumed consent would have a substantial impact in increasing the supply.[294]

Another suggestion is compulsory donation.[295] Under this theory, everyone

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[285] Note, *supra* note 62, at 1229 mentions that physicians presently receive a multitude of literature produced by pharmaceutical companies which detail the benefits of a new drug to the patient, but seldom disclose the drug's cost. Therefore cost does not become a motivating factor in his decision to prescribe that drug. *Id.*

[286] *Id.* at 1231.

[287] Note, *supra* note 269, at 1037.

[288] This result could occur with any product which is in short supply or illegal. For example, it is common knowledge that organized crime is involved in supplying this country with illegal drugs, and organ sales would merely present an opportunity for these organizations to diversify.

[289] Note, *supra* note 265, at 1037. *See also* Lee, *supra* note 3, at 400.

[290] Prottas, *supra* note 1, at 187.

[291] *Id.*

[292] *Id.*

[293] *Id.* at 188.

[294] *Id.*

[295] Lee, *supra* note 3, at 397.

would be tissue and blood typed and placed on a national registry mandating a donation of one kidney.[296] However, it is unlikely that a program of this sort would ever come into existence because of the constitutional issues it presents in cases of both live and cadaver donations.[297] In the alternative, compulsory donation from convicts and fetuses has been proposed.[298] A final alternative is compulsory removal upon death, as opposed to presumed consent.[299]

D. *Biomorts*

Perhaps the most shocking vision of the future is the biomort. A biomort is a person who has been declared brain dead, but whose body is kept alive by means of life support systems.[300] A biomort bears an uncanny resemblance to a person who is merely sleeping because the body has respiration, a pulse, color and even warmth.[301] The difference is that the person is clinically dead.[302]

Biomorts have already been used to test drugs, uterine functions, and mechanical hearts.[303] The potential for the biomort is unlimited because it is in a state similar to that of an anesthetized patient.[304] The advantage of the biomort's state is that it can be used by medical students to learn surgical procedures, by researchers to test drugs and equipment, and it is a stable, no-risk organism.[305] Additionally, the results achieved from such experiments can be directly applied to live patients.[306] It has been suggested that biomorts and their internal organs could be catalogued and used as a ready supply of organs for transplant, as well as a harvesting ground for blood, tissue, fluids, and hormones.[307] Drugs like interferon could also be produced from these human sources.[308]

As medically appealing as biomorts may be, serious ethical problems are involved. Currently, there are no laws governing biomort research, and often times, there are unsettling results.[309] Medical students performing procedures on biomorts have recorded "[d]ramatic increases in . . . blood pressure as well as heart rate after incision[s]" were made, implying that the body was still

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[296] *Id.*

[297] *Id.*

[298] *Id.* at 397-98.

[299] *Id.* at 404.

[300] Martyn, *supra* note 214, at 1-2.

[301] *Id.* at 8.

[302] *Id.*

[303] *Id.* at 2, 7.

[304] *Id.* at 8.

[305] *See generally id.*

[306] *Id.* at 5.

[307] *Id.* at 6.

[308] *Id.* at 7.

[309] *Id.*

capable of feeling pain despite the fact that the brain was dead.[310] In a documentary film produced for British television, a team of American doctors was shown preparing to remove an organ from a brain dead "cadaver" when the body moved and breathed simultaneously; the surgeons completed the procedure.[311]

Unfortunately, the UAGA does not address biomorts,[312] but it becomes clear that legislation governing procedures of this nature should be enacted in the interest of preserving the integrity of the body, as well as the piece of mind of physicians and family.

Biomorts, brokerage houses, and open market sales of organs present some fascinating concepts and sometimes sensational solutions to increase the organ supply. While organ sales are not a complete impossibility, it is doubtful that Congress or public opinion will change dramatically. However, perhaps the most realistic suggestions to the sales alternative have been those which propose changes in existing legislation such as implementing required request laws and strengthening the decedent's wishes through an absolute binding power of donor cards.[313] Making the public more aware of organ donation and its benefits though medical and religious organizations may have the greatest impact of all.

V. CONCLUSION

The Uniform Anatomical Gift Act has served as the framework for organ donation statutes nationwide.[314] It has provided a model for uniformity under a system that would be unworkable without it. Since its adoption in 1969, changing technology and unanticipated need have pointed to its shortcomings, but the Act stands alone as the major catalyst for organ procurement. In Ohio and other jurisdictions, it has helped thousands of families grapple with the tragic loss of a loved one by providing them with the option of giving life through death. While finding donors and transplanting organs quickly sometimes presents problems, the most serious problem is the short supply of organs. Although current medical technology could provide a warehouse of body parts,[315] it is unlikely that society's age old reverence for the dead will disappear in the near future.

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[310] *Id.* at 9.

[311] *Id.* at 13.

[312] *See generally* UAGA 8A U.L.A. (1986).

[313] Prottas, *supra* note 1, at 401.

[314] *See* UAGA *supra* note 35.

[315] Maryin, *supra* note 214, at 3.

The answer to the shortage does not lie in merely enacting new legislation. Recognition of our mortality is something that our society as a whole seems reluctant to acknowledge. The never-aging image of youth is projected in our advertising and attitudes and often times, in the way we live. However, as much as we try to disguise it, the stark reality remains — we are mortal. That is not to suggest that we should refuse to enjoy life and dwell upon the inevitable. But during those somber moments when we are confronted with the death of a loved one and reminded of our mortality, we should face the question of what to do with our own body upon its death. The reversal of the organ shortage depends as much upon our individual efforts to confront this question and make an informed decision, as it does upon proper legislation. Changing attitudes about organ procurement through increased public awareness, family support and religious approval may well be the solution to dramatically increasing the number of those who are committed to give the gift of life.

JULIANA S. MOORE

APPENDIX A

UNIFORM ANATOMICAL GIFT ACT

§ 1. [Definitions]

(a) "Bank or storage facility" means a facility licensed, accredited, or approved under the laws of any state for storage of human bodies or parts thereof.

(b) "Decedent" means a deceased individual and includes a stillborn infant or fetus.

(c) "Donor" means an individual who makes a gift of all or part of his body.

(d) "Hospital" means a hospital licensed, accredited, or approved under the laws of any state; includes a hospital operated by the United States government, a state, or a subdivision thereof, although not required to be licensed under state laws.

(e) "Part" means organs, tissues, eyes, bones, arteries, blood, other fluids and any other portions of a human body.

(f) "Person" means an individual, corporation, government or governmental subdivision or agency, business trust, estate, trust, partnership or association, or any other legal entity.

(g) "Physician" or "surgeon" means a physician or surgeon licensed or authorized to practice under the laws of any state.

(h) "State" includes any state, district, commonwealth, territory, insular possession, and any other area subject to the legislative authority of the United States of America.

§ 2. [Persons Who May Execute an Anatomical Gift]

(a) Any individual of sound mind and 18 years of age or more may give all or any part of his body for any purpose specified in section 3, the gift to take effect upon death.

(b) Any of the following persons, in order of priority stated, when persons in prior classes are not available at the time of death, and in the absence of actual notice of contrary indications by the decedent or actual notice of opposition by a member of the same or a prior class, may give all or any part of the decedent's body for any purpose specified in section 3:

(1) the spouse,

(2) an adult son or daughter,

(3) either parent,

(4) an adult brother or sister,

(5) a guardian of the person of the decedent at the time of his death,

(6) any other person authorized or under obligation to dispose of the body.

(c) If the donee has actual notice of contrary indications by the decedent or that a gift by a member of a class is opposed by a member of the same or a prior class, the donee shall not accept the gift. The persons authorized by subsection (b) may make the gift after or immediately before death.

(d) A gift of all or part of a body authorizes any examination necessary to assure medical acceptability of the gift for the purposes intended.

(e) The rights of the donee created by the gift are paramount to the rights of others except as provided by Section 7(d).

§ 3. [Persons Who May Become Donees; Purposes for Which Anatomical Gifts May be Made]

The following persons may become donees of gifts of bodies or parts thereof for the purposes stated:

(1) any hospital, surgeon, or physician, for medical or dental education, research, advancement of medical or dental science, therapy, or transplantation; or

(2) any accredited medical or dental school, college or university for education, research, advancement of medical or dental science, or therapy; or

(3) any bank or storage facility, for medical or dental education, research, advancement of medical or dental science, therapy, or transplantation; or

(4) any specified individual for therapy or transplantation needed by him.

§ 4. [Manner of Executing Anatomical Gifts]

(a) A gift of all or part of the body under Section 2(a) may be made by will. The gift becomes effective upon the death of the testator without waiting for probate. If the will is not probated, or if it is declared invalid for testamentary purposes, the gift, to the extent that it has been acted upon in good faith, is nevertheless valid and effective.

(b) A gift of all or part of the body under Section 2(a) may also be made by document other than a will. The gift becomes effective upon the death of the donor. The document, which may be a card designed to be carried on the person, must be signed by the donor [in the presence of 2 witnesses who must sign the document in his presence]. If the donor cannot sign, the document may be signed for him at his direction and in his presence in the presence of 2 witnesses who must sign the document in his presence. Delivery of the document of gift during the donor's lifetime is not necessary to make the gift valid.

(c) The gift may be made to a specified donee or without specifying a donee. If the latter, the gift may be accepted by the attending physician as donee

upon or following death. If the gift is made to a specified donee who is not available at the time and place of death, the attending physician upon or following death, in the absence of any expressed indication that the donor desired otherwise, may accept the gift as donee. The physician who becomes a donee under this subsection shall not participate in the procedures for removing or transplanting a part.

(d) Notwithstanding Section 7(b), the donor may designate in his will, card, or other document of gift the surgeon or physician to carry out the appropriate procedures. In the absence of a designation or if the designee is not available, the donee or other person authorized to accept the gift may employ or authorize any surgeon or physician for the purpose.

(e) Any gift by a person designated in Section 2(b) shall be made by a document signed by him or made by his telegraphic, recorded telephonic, or other recorded message.

§ 5. [Delivery of Document of Gift]

If the gift is made by the donor to a specified donee, the will, card, or other document, or an executed copy thereof, may be delivered to the donee to expedite the appropriate procedures immediately after death. Delivery is not necessary to the validity of the gift. The will, card, or other document, or an executed copy thereof, may be deposited in any hospital, bank or storage facility or registry office that accepts it for safekeeping or for facilitation of procedures after death. On request of any interested party upon or after the donor's death, the person in possession shall produce the document for examination.

§ 6. [Amendment or Revocation of the Gift]

(a) If the will, card, or other document or executed copy thereof, has been delivered to a specified donee, the donor may amend or revoke the gift by:

(1) the execution and delivery to the donee of a signed statement, or

(2) an oral statement made in the presence of 2 persons and communicated to the donee, or

(3) a statement during a terminal illness or injury addressed to an attending physician and communicated to the donee, or

(4) a signed card or document found on his person or in his effects.

(b) Any document of gift which has not been delivered to the donee may be revoked by the donor in the manner set out in subsection (a), or by destruction, cancellation, or mutilation of the document and all executed copies thereof.

(c) Any gift made by a will may also be amended or revoked in the manner provided for amendment or revocation of wills, or as provided in subsection (a).

§ 7. [Rights and Duties at Death]

(a) The donee may accept or reject the gift. If the donee accepts a gift of the entire body, he may, subject to the terms of the gift, authorize embalming and the use of the body in funeral services. If the gift is of a part of the body, the donee, upon the death of the donor and prior to embalming, shall cause the part to be removed without unnecessary mutilation. After removal of the part, custody of the remainder of the body vests in the surviving spouse, next of kin, or other persons under obligation to dispose of the body.

(b) The time of death shall be determined by a physician who tends the donor at his death, or, if none, the physician who certifies the death. The physician shall not participate in the procedures for removing or transplanting a part.

(c) A person who acts in good faith in accord with the terms of this Act or with the anatomical gift laws of another state [or a foreign country] is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his act.

(d) The provisions of this Act are subject to the laws of this state prescribing powers and duties with respect to autopsies.

§ 8. [Uniformity of Interpretation]

This Act shall be so construed as to effectuate its general purpose to make uniform the law of those states which enact it.

§ 9. [Short Title]

This Act may be cited as the Uniform Anatomical Gift Act.

§ 10. [Repeal]

The following acts and parts of acts are repealed:

(1)

(2)

(3)

§ 11. [Time of Taking Effect]

This Act shall take effect . . . .

APPENDIX B

CHAPTER 2108: HUMAN BODIES OR PARTS THEREOF

§ 2108.01 [Definitions.]

As used in sections 2108.01 to 2108.10, inclusive, of the Revised Code:

(A) "Bank or storage facility" means a facility licensed, accredited, or approved under the laws of any state for storage of human bodies or parts thereof.

(B) "Decedent" means a deceased individual and includes a stillborn infant or fetus.

(C) "Donor" means an individual who makes a gift of all or part of his body.

(D) "Hospital" means any hospital operated in this state which is accredited by the joint commission on accreditation of hospitals of the American hospital association, the American medical association, the American college of physicians, and the American college of surgeons. "Hospital" also means a hospital licensed, accredited, registered, or approved under the laws of any state, and includes a hospital operated by the United States government, a state, or a subdivision thereof, although not required to be licensed under state laws.

(E) "Part" means organs, tissues, eyes, bones, arteries, blood or other fluids, and any other portions of a human body.

(F) "Person" means an individual, corporation, government or governmental subdivision or agency, business trust, estate, trust, partnership or association, or any other legal entity.

(G) "Physician" or "surgeon" means a physician or surgeon licensed or authorized to practice under the laws of any state.

(H) "State" means any state, district, commonwealth, territory, insular possession, and any other area subject to the legislative authority of the United States of America.

HISTORY: 133 v H 51 (Eff 11-6-69); 133 v H 852. Eff 8-27-70.

§ 2108.02 [Rights of donor; donee.]

(A) Any individual of sound mind and eighteen years of age or more may give all or any part of his body for any purpose specified in section 2108.03 of the Revised Code, the gift to take effect upon his death.

(B) Any of the following persons, in the order of priority stated, when persons in prior classes are not available at the time of death, and in the absence of actual notice of contrary indications by the decedent or actual notice of opposition by a member of the same or a prior class, may give any part of the

decedent's body for any purpose specified in section 2108.03 of the Revised Code:

(1) The spouse;

(2) An adult son or daughter;

(3) Either parent;

(4) An adult brother or sister;

(5) A guardian of the person of the decedent at the time of his death;

(6) Any other person authorized or under obligation to dispose of the body.

(C) The donee shall not accept the gift if he has actual notice of contrary indications by the decedent or that a gift by a member of a class is opposed by a member of the same or a prior class. The persons authorized in division (B) of this section may make the gift after or immediately before death.

(D) A gift of all or part of a body authorizes any examination necessary to assure medical acceptability of the gift for the purpose intended.

(E) The rights of the donee created by the gift are paramount to the rights of others except that a coroner, or in his absence, a deputy coroner, who has, under section 313.13 of the Revised Code, taken charge of the decedent's dead body and decided that an autopsy is necessary, has a right to the dead body and any part that is paramount to the rights of the donee. The coroner, or in his absence, the deputy coroner, may waive this paramount right and permit the donee to take a donated part if the donated part is or will be unnecessary for successful completion of the autopsy or for evidence. If the coroner or deputy coroner does not waive his paramount right and later determines, while performing the autopsy, that the donated part is or will be unnecessary for successful completion of the autopsy or for evidence, he may thereupon waive his paramount right and permit the donee to take the donated part, either during the autopsy or after it is completed.

HISTORY: 133 v H 51 (Eff 11-6-69); 136 v H 1182. Eff 5-4-76.

[§ 2108.02.1] § 2108.021 [Hospital to develop procurement protocol; request for gift; guidelines.]

(A) As used in this section, "Certified organ and tissue procurement organization" means a non-profit organ or tissue procurement organization that has its principal place of business in this state and is certified under Title XVIII of the "Social Security Act," 49 Stat. 620 (1935), 42 U.S.C. 301, as amended, or by the eye bank association of America.

(B) Every hospital shall develop an organ and tissue procurement protocol in consultation with a certified organ and tissue procurement organization. The protocol shall encourage reasonable discretion and sensitivity to the family circumstances in all discussions regarding donations of tissue or organs. The pro-

tocol shall identify the appropriate circumstances under which a request for organ or tissue donations is made or not made and shall require that families of potential organ donors be informed of the option to donate tissue or organs. Such notification shall be the responsibility of the certified organ and tissue procurement organization unless otherwise designated. In any case in which a hospital patient is suitable as an organ or tissue donor based on the hospital's protocol, the certified organ and tissue procurement organization, the hospital administrator, or his designated representative shall request one or more of the persons described in division (B) of section 2108.02 of the Revised Code to make a gift of appropriate parts of the patient's body, except that the certified organ and tissue procurement organization, the hospital administrator, or his designated representative shall not make such a request if he has actual notice of contrary intentions by the patient, actual notice of opposition by any of the persons described in division (B) of section 2108.02 of the Revised Code, or reason to believe that a gift for purposes described in section 2108.03 of the Revised Code is contrary to the patient's religious beliefs.

When a gift is requested under this section, the certified procurement organization, the hospital administrator, or his designated representative shall complete a certificate of request for an anatomical gift, on a form prescribed by the director of health. The certificate shall state whether or not a request for an anatomical gift was made, shall state the name of the person or persons to whom the request was made and his or their relationship to the patient, and shall state whether or not the gift was granted. Upon completion of the certificate, the certified organ and tissue procurement organization, the hospital administrator, or his designated representative shall retain the certificate in a central location for no less than three years after the date of the patient's death. Upon the request of the director of health, the certified organ and tissue organization, hospital administrator, or his designated representative shall permit the director or his authorized representative to inspect or copy the certificate or shall provide a summary of the information contained in the certificates to the director on a form prescribed by the director. All copies of such certificates or summaries in the possession of the director, except for any patient-identifying information contained in them, are public records as defined in section 149.43 of the Revised Code.

(C) The director of health shall issue guidelines establishing:

(1) Recommendations for the training of persons representing certified organ and tissue procurement organizations, hospital administrators, and representatives designated to make requests for anatomical gifts under this section;

(2) Communication and coordination procedures to improve the efficiency of making donated organs available. The guidelines shall include procedures for communicating with the appropriate certified organ and

tissue procurement organization.

HISTORY: 141 v H 770. Eff 3-17-87.

The effective date provisions of HB 770 are set by § 3 of the act.

§ 2108.03 [Who may become donees.]

Any of the following persons may become donees of gifts of bodies or parts thereof for the purposes stated;

(A) A hospital, surgeon, or physician, for medical or dental education, research, advancement of medical or dental science, therapy, or transplantation.

(B) An accredited medical or dental school, college, or university, for education, research, advancement of medical or dental science, or therapy;

(C) A bank or storage facility, for medical or dental education, research, advancement of medical or dental science, therapy, or transplantation;

(D) A specified individual for therapy or transplantation needed by him.

HISTORY: 133 v H 51. Eff 11-6-69.

§ 2108.04 [Gift made effective upon death.]

(A) A gift of all or part of the body under division (A) of section 2108.02 of the Revised Code may be made by will. The gift becomes effective upon the death of the testator without waiting for probate. If the will is not probated or if it is declared invalid for testatmentary purposes, the gift, to the extent that it has been acted upon in good faith, is nevertheless valid and effective.

(B) A gift of all or part of the body under division (A) of section 2108.02 of the Revised Code may also be made by any document other than a will. The gift becomes effective upon the death of the donor. The document, which may be a card designed to be carried on the person, shall be signed by the donor in the presence of two witnesses who shall sign the document in his presence. If the donor cannot sign, the document may be signed for him at his direction and in the presence of two witnesses, having no affiliation with the donee, who shall sign the document in his presence. Delivery of the document of gift during the donor's lifetime is not necessary to make the gift valid.

(C) A gift of parts of the body under division (A) of section 2108.02 of the Revised Code, may also be made by a statement to be provided for on all Ohio operator's or chauffeur's licenses or motorcycle operator's licenses, or endorsements, and on all identification cards. The gift becomes effective upon the death of the donor. The statement must be signed by the holder of the operator's or chauffeur's license or endorsement, or by the holder of the identification card, in the presence of two witnesses, who must sign the statement

in the presence of the donor. Delivery of the license or identification card during the donor's lifetime is not necessary to make the gift valid. The gift shall become invalidated upon expiration or cancellation of the license or endorsement, or identification card. Revocation or suspension of the license or endorsement will not invalidate the gift. The gift must be renewed upon renewal of each license, endorsement, or identification card. If the statement is ambiguous as to whether a general or specific gift is intended by the donor, the statement shall be construed as evidencing the specific gift only. As used in this division, "identification card" means an identification card issued under section 4507.50 of the Revised Code.

(D) The gift may be made to a specified donee or without specifying a donee. If the latter, the gift may be accepted by the attending physician as donee upon or following death. If the gift is made to a specified donee who is not available at the time and place of death, the attending physician may accept the gift as donee upon or following death, in the absence of any expressed indication that the donor desired otherwise. The physician who accepts the gift as donee under this division shall not participate in the procedures for removing or transplating a part.

(E) Notwithstanding division (B) of section 2108.07 of the Revised Code, the donor may designate in his will, card, or other document of gift the surgeon or physician to carry out the appropriate procedures. In the absence of a designation or if the designee is not available, the donee or other person authorized to accept the gift may employ or authorize any surgeon or physician to carry out the appropriate procedures.

(F) Any gift by a person specified in division (B) of section 2108.02 of the Revised Code shall be made by a document signed by him or made by his telegraphic, recorded telephonic, or other recorded message.

*HISTORY: 137 v S294 (Eff 6-2-78); 140 v S302. Eff 10-1-84.

§ 2108.05 [Safekeeping of document.]

If the gift is made by the donor to a specified donee, the will, card, or other document, or an executed copy thereof, may be delivered to the donee to expedite the appropriate procedures immediately after death. Delivery is not necessary to the validity of the gift. The will, card, or other document, or an executed copy thereof, may be deposited in any hospital, bank or storage facility, or registry office that accepts it for safekeeping or for facilitation of procedures after death. On request of any interested party upon or after the donor's death, the person in possession shall produce the document for examination.

HISTORY: 133 v H 51. Eff 11-6-69.

§ 2108.06 [Gift revocation.]

(A) If the will, card, or other document, or an executed copy thereof, has been delivered to a specified donee, the donor may amend or revoke the gift by any of the following means:

(1) The execution and delivery to the donee of a signed statement;

(2) An oral statement made in the presence of two persons and communicated to the donee;

(3) A statement during a terminal illness or injury addressed to an attending physician and communicated to the donee;

(4) A signed card or document found on his person or in his effects.

(B) The donor may revoke any document of gift which has not been delivered to the donee, in any manner specified in division (A) of this section or by destruction, cancellation, or mutilation of the document and all executed copies thereof.

(C) Any gift made by a will may also be amended or revoked in the manner provided for amendment or revocation of wills or as provided in division (A) of this section.

HISTORY: 133 v H 51. Eff 11-6-69.

§ 2108.07 [Removal of part; transplant restrictions.]

(A) The donee may accept or reject the gift. If the donee accepts a gift of the entire body, the surviving spouse or next of kin may, subject to the terms of the gift, authorize embalming and the use of the body in funeral services. If the gift is of a part of the body, the donee, upon the death of the donor and prior to embalming, shall cause the part to be removed without unnecessary mutilation. After removal of the part, custody of the remainder of the body vests in the surviving spouse, next of kin, or other persons under obligation to dispose of the body.

(B) The attending physician or a physician selected by the donor shall determine the time of death. If it is not possible for such physician to attend the donor at his death or to certify the death within a period of time which would make it possible to carry out the terms of the gift, the time of death shall be determined by two physicians having no affiliation with the donee. The physician or physicians determining the time of death or certifying the death shall not participate in the procedures for removing or transplanting a part.

HISTORY: 133 v H 51. Eff 11-6-69.

[§ 2108.07.1] § 2108.071 Eye enucleation by embalmer.

(A) With respect to the gift of an eye, an embalmer licensed pursuant to Chapter 4717. of the Revised Code who has completed a course in eye enucleation and has received a certificate of competency to that effect from a school of medicine recognized by the state medical board may enucleate eyes for the gift after proper certification of death by a physician and compliance with the intent of the gift as defined by sections 2108.01 to 2108.10 of the Revised Code.

(B) As used in this section, "eye enucleation" means the removal of the eyeball in such a way that it comes out clean and whole.

HISTORY: 135 v H 12-42. Eff 3-4-75.

§ 2108.08 [Liability for damages.]

A person who acts in good faith in accordance with sections 2108.01 to 2108.10, inclusive, of the Revised Code, or the anatomical gift laws of another state, is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his act.

HISTORY: 133 v H 51 (Eff 11-6-69); 133 v H 852. Eff 8-27-70.

§ 2108.09 [Uniform act.]

Sections 2108.01 to 2108.09, inclusive, of the Revised Code, are enacted to adopt the Uniform Anatomical Gift Act (1968), national conference of commissioners on uniform state laws, and shall be construed so as to effectuate its general purpose to make uniform the law of those states which enact it.

HISTORY: 133 v H 51. Eff 11-6-69.

§ 2108.10 Forms.

(A) The document of gift provided for in division (B) of section 2108.04 of the Revised Code shall conform substantially to the following forms:

UNIFORM DONOR CARD
OF

_____

Print or type name of donor

In the hope that I may help others, I hereby make this anatomical gift, if medically acceptable, to take effect upon my death. The words and marks below indicate my desire.

I give: (A) _____ any needed organs or parts
(B) _____ only the following organs or parts _____

_____
Specify the organ(s) or part(s)
for the purpose of transplantation, therapy, or medical research or education.
(C) _____ my body for anatomical study, if needed.

Limitations or special wishes, if any: _____

_____

Signed by the donor and the following two witnesses in the presence of each other:

_____
Signature of Donor

_____
Date of Birth of Donor

_____
Date Signed

_____
Witness

_____
Witness

This is a legal document under the Uniform Anatomical Gift Act or similar laws.

ANATOMICAL GIFT BY NEXT OF KIN
OR OTHER AUTHORIZED PERSON

I hereby make this anatomical gift from the body of _____
(name)
who died on _____ in _____
(date) (city and state)

The marks in the appropriate squares and the words filled into the blanks below indicate my relationship to the deceased according to the following order of priority as presented by Ohio law, and indicate my desires respecting the gift.

1. I am the surviving:
   1. ☐ spouse;
   2. ☐ adult son or daughter;
   3. ☐ parent;
   4. ☐ adult brother or sister;
   5. ☐ guardian;
   6. ☐ authorized to dispose of the body;
2. I give:
   ☐ any needed organs or parts;
   ☐ the following organs or parts _____

_____

3. To the following person (or institution): _____

_____

(insert the name of a physician, hospital, research or educational institution, storage banks, or individual);

4. For the following purposes:
   - ☐ any purpose authorized by section 2108.03 of the Revised Code;
   - ☐ transplantation;
   - ☐ therapy;
   - ☐ medical research and education;
5. After the donated organs or parts are removed, the remains of the body shall be disposed of in the following manner:
   _____; at the expense of the following person: _____

Dated _____ City and State _____

_____

Signature of Survivor

_____

Address of Survivor

(B) The statement of gift provided for in division (C) of section 2108.04 of the Revised Code shall conform substantially to the following form:

I hereby make an anatomical gift, to be effective upon my death, of:

(A) ☐ any needed organs or parts (if you mark this box, go to section (C))

or

(B) ☐ only the following organs or body part(s): (list)

_____

(C) Donee _____

Date _____

Signature of donor _____

Witness _____

Witness _____

HISTORY: 137 v S 294 (Eff 6-2-78); 139 v H 54. Eff 7-23-81.

§ 2108.11 Transaction involving human tissue not a sale.

The procuring, furnishing, donating, processing, distributing, or using human whole blood, plasma, blood products, blood derivatives, and products, corneas, bones, organs, or other human tissue except hair, for the purpose of injecting, transfusing, or transplanting any of them in the human body, is declared for all purposes to be the rendition of a service by every person, firm, or corporation participating therein, whether or not any remuneration is paid therefor, is declared not to be a sale of any such items, and no warranties of any kind or description are applicable thereto.

HISTORY: 133 v H 439. Eff 11-14-69.

§ 2108.30 Death defined.

An individual is dead if he has sustained either irreversible cessation of circulatory and respiratory functions or irreversible cessation of all functions of the brain, including the brain stem, as determined in accordance with accepted medical standards. If the respiratory and circulatory functions of a person are being artificially sustained, under accepted medical standards a determination that death has occurred is made by a physician by observing and conducting a test to determine that the irreversible cessation of all functions of the brain has occurred.

A physician who makes a determination of death in accordance with accepted medical standards. If the respiratory and circulatory functions of a person are being artificially sustained, under accepted medical standards a determination that death has occurred is made by a physician by observing and conducting a test to determine that the irreversible cessation of all functions of the brain has occurred.

A physician who makes a determination of death in accordance with this section and accepted medical standards is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his acts or the acts of others based on that determination.

Any person who acts in good faith in reliance on a determination of death made by a physician in accordance with this section and accepted medical standards is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his actions.

HISTORY: 139 v S 98. Eff 3-15-82.

§ 2108.50 Post-mortem examination; persons who may give consent.

An autopsy or post-mortem examination may be performed upon the body of a deceased person by a licensed physician or surgeon if consent has been given in the order named by one of the following persons of sound mind and eighteen years of age or older in a written instrument executed by him or on his behalf at his express direction:

(A) The deceased person during his lifetime;

(B) The decedent's spouse;

(C) If there is no surviving spouse, if the address of the surviving spouse is unknown or outside the United States, if the surviving spouse is physically or mentally unable or incapable of giving consent, or if the deceased person was separated and living apart from such surviving spouse, then a person having the first named degree of relationship in the following list in which a relative

of the deceased survives and is physically and mentally able and capable of giving consent may execute consent:

(1) Children;

(2) Parents;

(3) Brothers or sisters.

(D) If there are no surviving persons of any degree of relationship listed in division (C) of this section, any other relative or person who assumes custody of the body for burial;

(E) A person authorized by written instrument executed by the deceased person to make arrangements for burial.

Consent may be revoked only by the person executing the consent and in the same manner as required for execution of consent under this section.

As used in this section, "written instrument" includes a telegram or cablegram.

HISTORY: 133 v S 234 (Eff 11-27-69); 134 v S 243. Eff 12-3-71.

§ 2108.51 Exemption from liability.

Any licensed physician or surgeon who, in good faith and acting in reliance upon an instrument of consent for an autopsy or post-mortem examination executed under section 2108.50 of the Revised Code and without actual knowledge of revocation of such consent, performs an autopsy or post-mortem examination is not liable in a civil or criminal action brought against him for such act.

HISTORY: 133 v S 234. Eff 11-27-69.

§ 2108.52 Exceptions to requirement of consent for post-mortem examination.

The requirements of section 2108.50 of the Revised Code do not apply to a post-mortem or other examination performed under sections 313.01 to 313.22 of the Revised Code, or to medical, surgical, and anatomical study performed under sections 1713.34 to 1713.42 of the Revised Code.

HISTORY: 133 v S 234 (Eff 11-27-69); 136 v H 1. Eff 6-13-75.

§ 2108.53 Removal of pituitary gland.

(A) A county coroner who performs an autopsy under section 313.13 of the Revised Code may, except as provided in divisions (B) and (C) of this section, remove the pituitary gland from the body and give it to the national pituitary agency to use for research and in manufacturing a hormone necessary for the physical growth of persons who are hypopituitary dwarfs, or to any other agency or organization to use for such research and manufacturing.

(B) If the pituitary gland is unnecessary for the successful completion of the autopsy or for evidence, the coroner shall not alter a gift made by the decedent or any other authorized person under Chapter 2108. of the Revised Code to an organization.

(C) If the pituitary gland is unnecessary for the successful completion of the autopsy or for evidence, the coroner shall not remove the pituitary gland under division (A) of this section if the next of kin of the decedent notifies the coroner that he objects to the actions of the coroner on the ground that the actions would violate the tenets of a well-recognized religion.

HISTORY: 137 v S 449. Eff 10-19-78.

§ 2108.60 Coroner who performs autopsy may remove or authorize removal of eyes.

(A) As used in this section:

(1) "Cornea" or "corneas" includes corneal tissue.

(2) "Eye bank" means a nonp-rofit corporation that is organized under the laws of this state, the purposes of which include obtaining, storing, and distributing corneas to be used for corneal transplants or other medical or medical research purposes, and that is exempt from federal taxation under subsection 501(c) of the Internal Revenue Code.

(3) "Eye bank official" means a person authorized by the trustees of an eye bank to make requests for corneas to be used for corneal transplants or other medical or medical research purposes.

(4) "Eye technician" means a person authorized by the medical director of an eye bank to remove the corneas of a decedent.

(5) "Internal Revenue Code" means the "Internal Revenue Code of 1954," 68A Stat. 3, 26 U.S.C. 1. as amended.

(B) A county coroner who performs an autopsy, pursuant to section 313.13 of the Revised Code, may remove one or both corneas of the decedent, or a coroner may authorize a deputy coroner, physician or surgeon licensed pursuant to section 4731.14 of the Revised Code, embalmer authorized under section 2108.071 [2108.07.1] of the Revised Code to enucieate eyes, or eye technician to remove one or both corneas of a decedent whose body is the subject of an autopsy performed pursuant to section 313.13 of the Revised Code, if all of the following apply:

(1) The corneas are not necessary for the successful completion of the autopsy or for evidence;

(2) An eye bank official has requested the removal of corneas and certified to the coroner in writing that the corneas will be used only for corneal transplants or other medical or medical research purposes;

(3) The removal of the corneas and gift to the eye bank do not alter a gift made by the decedent or any other person authorized under this chapter to an agency or organization other than the eye bank;

(4) The coroner, at the time he removes or authorizes the removal of the corneas, has no knowledge of an objection to the removal by any of the following:

(a) The decedent, as evidenced in a written document executed during his lifetime;

(b) The decedent's spouse;

(c) If there is no spouse, the decedent's adult children;

(d) If there is no spouse and no adult children, the decedent's parents;

(e) If there is no spouse, no adult children, and no parents, the decedent's brothers or sisters;

(f) If there is no spouse, no adult children, no parents, and no brothers or sisters, the guardian of the person of the decedent at the time of death;

(g) If there is no spouse, no adult children, no parents, no brothers or sisters, no guardian of the person of the decedent at the time of death, any other person authorized or under obligation to dispose of the body.

(C) Any person who acts in good faith under this section and without knowledge of an objection, as described in division (B)(4) of this section, to the removal of corneas is not liable in any civil or criminal action based on the removal.

HISTORY: 135 v H 415 (Eff 3-27-80); 140 v H 239. Eff 3-28-84.

APPENDIX C

U.S. TRANSPLANT STAT SHEET

The following chart was issued by the American Council on Transplantation and provides approximate numbers for certain organs and tissue transplants, together with patient survival rates at one year, approximate numbers for those *medically* approved and actually awaiting transplant, and numbers of centers:

p 1986 projections based on 9 months actual transplant statistics
* 1986 totals from January 1 through September 30, 1986

Organ and Tissue	*Transplants Performed in the United States*						*Number of People Waiting*	*Number of Centers 1986*	*Patient and Graft Survival*	*Average Cost*
	1981	*1982*	*1983*	*1984*	*1985*	*1986*				
Kidneys	4,485[c]	5,358[c]	6,112[c]	6,968[c]	7,695[c]	8,495[d]* p10,566[d]	9,000[g]	1984-170[e] 1985-178[e] 1986-184[e]	CD-91% LRD-96%	$30,000 to $40,000
Heart	62[c]	103[c]	172[c]	346[c]	731[d]	1,073[d]* p1,430[d]	300[g]	1984-37[d] 1985-74[d] 1986-93[d]	80-83%	$57,000 to $110,000
Heart/Lung	—	—	—	—	30[c]	39[d] p42[d]*	75[g]	1984-05[d] 1985-09[d] 1986-14[d]	—	—
Liver	26[c]	62[c]	164[c]	308[c]	605[d]	675[d] p925[d]	300[g]	1984-25[d] 1985-36[d] 1986-45[d]	65-70%	$68,000 to $238,000
Pancreas	—	35[c]	61[c]	87[c]	133[d]	130[f]	50[g]	1984-08[d] 1985-23[d] 1986-34[d]	PAT-80% GFT-40%	$30,000 to $40,000
Corneas	—	18,500[c]	21,250[c]	24,000[c]	26,326[b]	28,000[b]	5,000[b]	400[b]	95%	$4,000 to $7,000
Bone Marrow	475[a]	800[a]	990[a]	1,000[a]	1,200[a]	1,160[a]	—	57[a]	—	$80,000 to $110,000

Source: (a) International Bone Marrow Registry
(b) Eye Bank Association of America
(c) Office of Organ Transplantation
(d) Department of Health and Human Services
(e) Health Care Financing Administration
(f) International Pancreas Registry
(g) Organ Procurement and Transplant Network

APPENDIX D

TISSUE DONORS

	12/86	*12/87*	*86 YTD*	*87 YTD*
# Referrals	10	37	63	330
# Donors	5	23	48	279
Eye	–	20	–	291
Bone	3	12	13	72
Skin	2	6	6	30
Heart Valve	–	3	0	22
Body	–	1	0	4
Utilization				
Eye:				
Cleve. Eye Bank	–	12	–	242
Melvin Jones	–	8	–	39
Bone:				
CCF	3	2	4	23
UH	0	0	6	4
ST. V.	0	0	1	11
Cleve. Red Cross	–	7	–	18
MATC	–	1	–	11
Canton Red Cross	–	2	–	5
Skin:				
Metro	0	1	3	4
Akron Child.	2	0	5	5
MATC	–	1	–	8
Cleve. Red Cross	–	3	–	11
Canton Red Cross	–	1	–	2
Heart Valve:				
CCF	–	1	–	13
UH	–	2	–	9
Akron City	–	0	–	0
Body:				
CCF	–	1	–	4
Other	–	0	–	0

APPENDIX D

ORGAN DONORS

Local	*12/86*	*12/87*	*86 YTD*	*87 YTD*
# Referrals	17	16	151	197
# Donors	5	4	62	65
Kidney	10	8	124	130
Heart	0	0	9	24
Liver	0	0	3	13
Pancreas	0	0	0	6
Denied Consent	–	4	–	51
Med. Unsuitable	–	6	–	78
Import				
Kidney	3	2	44	44
Heart	0	0	4	1
Liver	0	0	4	4
Pancreas	0	0	0	0
Utilization				
Kidney:				
ACH	1	3	25	25
CCF	5	3	68	63
UH	4	2	42	52
Discard	2	2	13	17
Export	1	0	8	10
Heart:				
CCF	1	0	5	12
UH	0	0	0	0
Export	0	0	8	11
Liver:				
CCF	0	0	2	5
Export	0	0	4	10
Pancreas:				
UH	0	0	4	6
CCF	0	0	0	0
Export	0	0	0	0