December 1973

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A SURVEY OF THE LEGAL ASPECTS OF ORGAN TRANSPLANTATION

INTRODUCTION

Legal literature was inundated with articles, notes and comments on the subject of organ transplantation during the year of 1968. The catalyst for this seemingly sudden and fad-like interest in the subject was the performance of the first human heart transplant on December 3, 1967. Over the past six years there have been significant legal developments in this area, as the law has adapted to meet changing medical and social needs. This comment will present a survey of the current status of the significant legal aspects of organ transplantation, and suggested approaches to related problems in terms of both litigation and client counseling. The topics to be examined are 1) donor consent, 2) the execution of anatomical gifts, 3) the legal concept of death and 4) contract or tort liability for activities relating to organ transplantation. The material presented is not intended to constitute an exhaustive analysis of each topic. Rather, a survey approach is employed in order to outline and comment upon the current status of this area of the law.

CONSENT

Live Donors in General

It is basic medical jurisprudence that prior to the performance of any surgical procedure, consent to that procedure must be obtained from the patient. One of the most frequently quoted statements of this proposition is one by Justice Cardozo:

Every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent commits an assault, for which he is liable in damages.¹

The following discussion of donor consent is limited to transplant procedures in which living donors are utilized.² Certain transplant procedures, such as kidney transplants or skin grafts, may be performed utilizing living donors. The application to organ transplantation is limited to kidney transplants, as


2. For a discussion of donative problems in procedures which utilize cadaver donors, see the section on EXECUTION OF ANATOMICAL GIFTS.
it is presently inconceivable that any vital organ other than the kidney might be removed from a living donor for the purpose of transplantation.³

If the hospital and physician are to protect themselves from tort liability for the removal of a kidney from a living donor, it is necessary to obtain not only the donor's express consent, but also his informed consent. The doctrine of informed consent concerns the duty of the physician to inform the patient of the risks that may be involved in the surgery.⁴ Informed consent may act as a limitation on express consent in that the latter is valid only to the extent that the patient has a clear understanding of the surgical procedure and the risks that are involved.⁶

There has been considerable discussion as to whether an action based on the absence of informed consent should be framed in battery or negligence.⁶ The prevailing view is that a tort action which alleges lack of informed consent is based on negligence for the physician's failure to conform to a proper standard. This standard is to be determined on the basis of expert testimony as to what disclosures should be made.⁷ The minority view is that the consent is vitiated and therefore the basis of liability is battery.⁸

No Illinois cases refer to the concept of informed consent. However, it would be inaccurate to conclude that a tort action based on lack of informed consent would be without legal basis in Illinois because it may be brought in the form of a negligence action. The gravamen of such an action lies in the physician's failure to conform to a reasonable standard as to disclosures, rather than in an intentional tortious act. Accordingly, the majority view seems to represent the more enlightened approach and would most likely be adopted in Illinois. Unless there is evidence of "shocking" and intentional misrepresentations which are unjustified, the plaintiff's complaint should be primarily in negligence.

The existence of alternative bases of liability demonstrates the need for caution by physicians and hospitals in performing even routine surgical procedures. The incidence of death or serious complication in live transplant donors having undergone the removal of one kidney (a unilateral

⁴. PROSSER, § 32.
⁶. See McCoid, A Reappraisal of Liability for Unauthorized Medical Treatment, 41 MINN. L. REV. 381 (1957) for an excellent and thorough analysis of this distinction. This is also discussed more briefly in Comment, Informed Consent as a Theory of Medical Liability, 1970 Wis. L. Rev. 879 (1970).
⁷. Mitchell v. Robinson, 334 S.W.2d 11 (Mo. 1960); Wilson v. Scott, 412 S.W.2d 299 (Tex. 1967); PROSSER, § 32.
nephrectomy) are infrequent. Accordingly, it is considered to be a low risk
procedure. Nonetheless, the donor must be made aware of all possible risks
if the requirements of informed consent are to be met.

In *Hart v. Brown*, the Superior Court of Connecticut received expert
testimony as to the nature of the possible risks to the donor in such a surgi-
cal procedure. The following material points from that testimony and cur-
tent medical opinion are suggested as examples of the nature of the in-
formation that must be disclosed to the donor, and which the donor must un-
derstand, in order to satisfy the requirement of informed consent. At the
time of the *Hart* decision, it was revealed that there was only one reported
death in 3,000 recorded kidney transplants utilizing live donors, and even
this death may have been from causes unrelated to the procedure. Cur-
rently, about 5,000 live donor transplants have been performed with prob-
ably no more than two donor deaths. The testimony in *Hart* also stated
that the operation would last about two and one half hours, and that the
post operative pain would be no greater than in a more routine surgical
procedure. Furthermore, the testimony indicated that the period of hospital-
ization would be about eight days, and a donor could usually resume normal
activities in thirty days. It is also noteworthy that the testimony in *Hart*,
indicated that the risk to the donor was such that life insurance actuaries
would not rate the donor higher than individuals with two kidneys. The
donor should also be informed that there is always some possibility of post
operative complications, which if serious enough, may require further sur-
gery. In all situations the physician and hospital administrator should be
aware of the legal requirements of informed consent in order to insure that
valid consent is obtained from the donor.

**Live Donors, Infants and Incompetents**

The requirement of consent to the unilateral nephrectomy on the live
donor is more problematic when the donor is legally incapable of giving
consent because of minority or mental deficiency. This is because in few

9. Interview with Dr. Frederick Merkel, Director of The Section of Transplan-
11. The question of obtaining valid consent from the recipient is based on the
general legal principles that have been presented. Specific consideration of the process
of "informing" the recipient is not included because that process is an inseparable part
of each individual doctor-patient relationship, which is established over a long period
of time; and an analysis of that relationship is not within the scope of this comment.
12. Interview with Dr. Frederick Merkel, *supra* note 9.
13. *Id.*
14. ILL. REV. STAT. ch. 91, § 18.1 (1971) provides:
The consent to the performance of a medical or surgical procedure by a
physician . . . executed by a married person who is a minor, by a pregnant
woman who is a minor, or by any person 18 years of age or older, is not
voidable because of such minority, and, for such purpose, . . . is deemed to
states is there clear precedent which indicates that a parent or guardian has the power to consent (for the donor) to a surgical procedure which is for the therapeutic benefit of someone other than the donor. In the two leading cases that have dealt with this problem it was determined that under the powers of equity, courts have the power to authorize the parents or guardian of the donor to consent to the procedure.

Strunk v. Strunk is a Kentucky case involving two brothers, aged 28 and 27. The latter was an incompetent, having a mental age of 6 years. The 28 year old was mentally competent, but was suffering from chronic renal disease. Medically, the most desirable course of treatment was the performance of a kidney transplant using the incompetent brother as the donor. The mother of the family filed a petition in equity seeking authority to give consent to the surgical procedure for the incompetent donor. The court relied on the doctrine of substituted judgment to establish its chancery power to authorize the parent to consent to the procedure. The doctrine of substituted judgment concerns the inherent powers of equity to act for an incompetent in the same manner as the incompetent would have acted if he had his faculties. The doctrine, as applied in Strunk, is broad enough to cover not only property matters, but also all other matters touching the well being of the legally incapacitated person. Accordingly, the holding of Strunk was based primarily, not on a consideration of what would be most beneficial to the recipient. The court instead found that the maintenance of the life of the incompetent's brother was in the best interest of the incompetent to such an extent as to warrant the removal of one of the latter's kidneys for that purpose.

A similar problem was presented to a Connecticut court in Hart v. Brown, except that the donor's incapacity to consent arose from infancy rather than mental deficiency. The parents of two seven year old twin girls brought an action for declaratory judgment as to their authority to consent to the removal of a kidney from the healthy twin for the purpose of

have the same legal capacity to act and has the same powers and obligations as has a person of legal age.


17. In Strunk, there was expert psychiatric testimony that there would be an extreme traumatic effect on the incompetent brother if this, his only brother or sister, died. Similarly, a review of the decree in Children's Memorial Hospital v. Lewis, No. 73 CH6936, Circuit Court of Cook County, Illinois (Nov. 21, 1973) (discussed in note 15, supra) indicates that there the court based its conclusion, in part, on a finding that there would be "grave emotional impact" on the donor if her sister died, and that when all facts were considered, it appeared that the potential benefit to the donor from the operation outweighed the potential dangers.

transplantation into the other. As in Strunk, the court relied on the equitable doctrine of substituted judgment as the basis for the authority to act in this area. The court noted, however, that before it would authorize the parents to consent, it must be established that the need is urgent, the probabilities of success are most favorable, and the duty is clear. The court also received psychiatric testimony that indicated that the donor had a strong identification with her twin sister and that if the transplant was successful, there would be an immense benefit to the donor in terms of her family life and the avoidance of the very great loss in the death of her sister. The donor had been informed of the proposed transplant, and, insofar as she was capable of understanding, she desired to donate her kidney. The court held that the parents were authorized to consent to the removal of a kidney of the healthy twin for the transplant.

These two cases, three unreported Massachusetts cases (which are in accord with Hart) and the recent Illinois case noted in footnote 17 are among the few American decisions dealing with the specific question of whether a parent or guardian may consent to non-therapeutic surgery on the donor who lacks legal capacity to give consent, when that surgery is for the therapeutic benefit of another. Aside from the paucity of precedent on this particular question, there is an absence of any cases in which, unlike Strunk and Hart, there is an interested party or an expert witness testifying that the proposed transplant would not be in the best interest of the donor. This suggests that the legal practitioner should advise the physician client not to rely upon the consent of a parent or guardian of a donor legally incapable of consenting, unless it has been specifically authorized by a court. Since the transplant is not an emergency surgical procedure, there would usually be no requirement of immediacy which would make declaratory proceedings impractical.

THE EXECUTION OF ANATOMICAL GIFTS—CADAVER DONORS

Background

The procurement of kidneys for transplantation can be effected from both living and cadaver donors while vital organs such as the heart, liver or lungs can only be procured from cadaver donors. This section concerns transplants from cadaver donors and the problems involved when a donor wishes to execute an anatomical gift to take effect upon his death.

19. The twin requiring the transplant had already undergone a bilateral nephrectomy and was being kept alive by undergoing frequent hemodialysis treatments.
In early English common law, no property rights were recognized in a dead body. This "no-property" doctrine was exemplified in *Williams v. Williams*.\(^{23}\) There the English Court concluded that since a body is not property, it could not be part of the decedent's estate; thus, a person could not direct the manner of his burial.\(^{24}\) Although this doctrine was originally adopted in early decisions in this country,\(^{25}\) some courts reduced its effects by recognizing that an individual has a "quasi-property" interest in his body. Even though this provided some basis for allowing a person to direct the post mortem disposition of his body, frequent departures in its application resulted in only qualified assurances that a decedent's desires would be followed in the absence of statutory authority. Furthermore, the chances of the fulfillment of the decedent's desires were greatly lessened if the decedent's intent was to donate his body for scientific or medical purposes.\(^{26}\)

In the past thirty years, varying statutes had been enacted in over forty states and the District of Columbia which permitted post mortem donations of all or part of the body for medical, scientific or therapeutic purposes. These statutes had little uniformity and most authorities concluded that the diversity and confusion in common law and statutory enactments resulted in the law being inadequate in matters relating to organ transplantation. One commentator summarized this situation as follows:

> These statutes represent a fundamental departure from the common law which did not provide this authority. Although a considerable improvement, the existing donation statutes, for the most part, have failed to fill the void left by both common law and those statutes relating to autopsies, unclaimed bodies, and medical examiners . . . . First, many important issues are either overlooked or ignored. The result is an uncertainty which restricts those physicians and scientists who work under the most severe time restrictions. Second, most donation statutes have failed to recognize the unique demands of organ and tissue donation. All too frequently the act of donating has been viewed merely as an extension of the testamentary disposition of property, an approach which has produced unnecessary formality and rigidity.\(^{27}\)

In 1965, in response to these legislative shortcomings, the Commissioners on Uniform State Laws created a special committee to draft a uniform donation statute. The result was the Uniform Anatomical Gift Act.

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23. 20 Ch. Div. 659 (1882).
25. *E.g.*, Enos v. Snyder, 131 Cal. 68, 63 P. 170 (1900).
The Uniform Anatomical Gift Act

The Uniform Anatomical Gift Act\(^2\) was approved by the National Conference on Uniform Laws and by the American Bar Association in July, 1968. The Act was intended to be a model donation statute which when adopted by the states would promote a favorable environment for the donation of an individual’s body for the purpose of transplantation or other medical or scientific ends.\(^2\) The Act had been adopted with only minor changes by thirty-nine states and the District of Columbia in 1969. By the end of 1971, the remaining eleven states had adopted the Act in some form.\(^3\)

Under the Act, any person of sound mind and over eighteen years of age\(^3\) may make a gift of all or any part of his body to take effect upon death. The Act provides that the surviving next of kin may (according to an enumerated order of priority) execute an anatomical gift of the body of the deceased so long as there is no notice of a contrary intention by the decedent, or opposition from a member of the same or a superior class of survivors.\(^3\) An important effect of this provision that logically follows is that a parent or other appropriate survivor of a deceased minor can execute an anatomical gift, even though the decedent minor would have been unable to do so himself.

The greatest degree of uniformity between states exists in the section of the Act dealing with the question of who may be a donee and for what purposes the gift may be made. Generally, an anatomical gift may be made to physicians, hospitals, teaching institutions, storage banks or to a specified individual for the purpose of transplantation, therapy, teaching or research.\(^3\) Another section which has been adopted with an exceptional degree of uniformity is that which prescribes the manner in which the gift may be executed.\(^3\) According to this provision, an anatomical gift may be executed by a will, in which case the gift is to become effective immediately upon the death of the testator without having to wait for probate. Furthermore, even if the will is not probated or is declared invalid for testamentary purposes, the gift is valid and effective to the extent that it has been acted upon in good faith.

In addition to execution by will, the gift may be made by another properly signed document or card. The latter is usually designed to be carried on

\(^2\) Featherstone, \textit{supra} note 26.
\(^3\) ILL. REV. STAT. ch. 3 § 553(a) (1971) requires that the donor executing the anatomical gift be of sound mind and be an "adult."
\(^3\) \textit{Uniform Anatomical Gift Act} § 2. (Hereinafter cited as \textit{Act}).
\(^3\) \textit{Act} § 3. \textit{See also} Featherstone, \textit{supra} note 26.
\(^3\) \textit{Act} § 4.
the person of the donor and is very helpful to insure the carrying out the wishes of the donor in accident situations where the time limitations are great. If no donee is named in the document, the attending physician may accept the gift. If a donee is specified, but is not available at the time of death, the attending physician may accept as the agent of the donee. The provision for the use of written instruments such as these is desirable in that it allows for a fulfillment of the donor's intentions in a flexible manner by which the necessity for adherence to technicalities involved in drafting wills is eliminated. The document or card must be signed by the donor in the presence of two witnesses who must also sign in the presence of the donor. Delivery of the document is not a prerequisite to the validity of the gift. It is further provided that the next of kin may execute a gift by a telegraphic, recorded telephonic or other recorded message. As with the card carried by the donor, these provisions expedite the procedures where time is limited.

The Act provides that if the will or other written instrument has been delivered, a revocation may be executed by a signed writing or an oral statement made in the presence of two witnesses. The revocation may also be effectuated by a statement made to the attending physician during a terminal illness or injury, or by a signed card found on the donor or among his effects. These methods may be used for amendment of the gift, as well as for revocation, and in either case the change must be communicated to the donee. The Act does not specify the exact means by which this communication is to be effected, however, it seems to imply a requirement of actual notice. A testamentary gift may also be amended or revoked in the same manner provided for amendment or revocation of wills in the adopting state. Illinois varies significantly from other jurisdictions in the requirements for amendments or revocation. In Illinois changing a delivered gift, made by document other than a will, requires the same formality of witnesses and certification as was necessary for its execution. Also, the Illinois statute does not contain a provision for alteration orally or through the attending physician during a terminal illness.

The Act further provides that a physician or other person who acts in good faith in accordance with the terms of the Act is protected from civil or criminal liability. Finally, after the removal of the part of the body being donated, custody of the remainder of the body vests in the surviving spouse, next of kin or others under an obligation to dispose of the body.

In Illinois, and many other jurisdictions, there are no reported decisions concerning the Act. At first blush, two possible conclusions are suggested from this empirical observation. First, one may get the impression that the

37. Act § 7(c).
38. Act § 7(a).
provisions of the Act are rarely relied upon. A second conclusion that is suggested is that the Act is relied upon, but its effectiveness in providing a favorable and workable environment for organ and tissue donation has resulted in a paucity of litigation. That the latter is the more accurate conclusion is indicated by the ever increasing number of organ and tissue transplants being performed. Therefore, from a client counseling standpoint, the Act represents an effective statutory tool which the attorney may utilize to ensure that the desires of his client are fully realized.

The provisions of the Act pertain to anatomical gifts which are to take effect upon death. The Act makes no attempt to define the uncertain point in time when life terminates and death is said to have occurred. It is necessary, therefore, to explore the current status of the law relating to the concept of death.

THE LEGAL CONCEPT OF DEATH

The Nature of the Problem

On September 10, 1973, Samuel M. Allen was shot in the head in Oakland, California. Allen was pronounced dead at a hospital after his brain showed no electric activity. He was unresponsive to stimuli, had no reflexes and had no spontaneous respiration. Allen's heart was kept beating by artificial means before it was removed, flown to Stanford University Hospital and transplanted into a recipient there. Andrew D. Lyons, who allegedly shot Allen, was charged with murder. In a pre-trial proceeding, the defendant's attorney argued that Lyons should not stand trial for murder because the victim's heart was still beating when it was removed and therefore, the victim was still alive. On October 5, 1973, after two days of medical and police testimony, the defendant was ordered to stand trial for murder.39

The question to be determined in this case is: When is a person legally dead? There is a dearth of legal answers to this question though a precise

39. Chicago Daily News, Oct. 6, 1973, at 8, col. 3. This ruling must be compared to a recent contrary ruling in another pending California criminal prosecution, People v. Flores, No. 20190, Sonoma County Municipal Court. Flores caused an automobile accident by driving on the wrong side of the road while intoxicated. As a result of the accident a twelve year old girl was severely injured and brought to a hospital. At the hospital she was pronounced dead on the basis of cessation of brain function, although her cardiac function had been maintained artificially. Her heart was donated and removed for transplantation purposes. At a preliminary hearing on December 5, 1973, a manslaughter charge against Flores was dismissed on a judge's ruling that the girl died from the transplant operation and not from the injuries sustained in the accident. It is unclear whether the ruling was based on a legal finding (rejection of a brain death standard for determining death) or on a factual finding (a brain death standard is acceptable, but the standard was not met). This very important point should be clarified when the ruling is reviewed. Telephone interview with Stephen Tucker, Deputy District Attorney of Sonoma County, California, Dec. 10, 1973; Chicago Tribune, Dec. 6, 1973, § 2, at 9, col. 3.
answer is needed. The process of organ transplantation from cadaver donors requires a precise determination of the instant of death of the donor.

Before considering the law's approach to this problem, it is helpful to review the recent medical developments that have caused this deficiency in the law. Traditionally, both medical and legal definitions of death have been associated with the cessation of heartbeat and respiration which has been termed "clinical death." However, modern medical techniques and machines, such as the respirator and the electric pacesetter, have enabled physicians to artificially maintain a patient's heartbeat and respiration thereby postponing clinical death. However, medical science has found no way to maintain the brain function, the complete failure of which (irreversible coma) has been termed "brain death."

Application of the clinical death standard would require the cessation of circulation in the donor before the surgeon could remove the organ. At this point the organ would have already begun to deteriorate, consequently, reducing significantly the probability of a successful transplant. However, the application of the brain death standard would allow for removal of the organ even though the circulation is being maintained artificially, thus enhancing the likelihood of a successful transplant. Accordingly, the case just presented concerns the situation in which the victim had sustained brain death and spontaneous respiration and heartbeat had ceased, but the latter had been maintained artificially before the removal of his heart for the purpose of transplantation. The central issue is to determine at precisely what point the patient was dead.

The Legal Definition of Death

The classic definition of death that has been developed through case law is reflected in the following entry in Black's Law Dictionary:

The cessation of life; the ceasing to exist; defined by physicians as the total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent thereon, such as respiration, pulsation, etc.

In the 1968 California case of In Re Schmidt, the question of the criteria for determining the instant of death arose because of a factual question of simultaneous death. The court cited and applied the above definition. Moreover, the testimony regarding irreversible coma was presented by expert witnesses, but categorically rejected. In the 1958 case of Smith v. Smith, which also involved simultaneous death, the Supreme Court of Arkansas adopted verbatim, the above quoted definition of death. Thus,
many courts have come to rely on this definition in determining when death occurs for purposes other than transplantation. Some courts have gone as far as to specifically reject the cessation of brain activity as an additional criterion of death.

Although the traditional criteria for determining death (the clinical death standard) may have been adequate for the resolution of cases involving issues such as simultaneous death, the application of that definition to the process of organ transplantation is unrealistic and inappropriate. If the clinical death standard is applied, transplant surgeons are vulnerable to both civil and criminal liability, not to mention the chilling effect that such a standard would have on the execution of anatomical gifts and on the research and development in this field of surgical science.

The first and, to date, the only decided case in which the question of a definition of death was presented in the context of organ transplantation was the Virginia case of Tucker v. Lower. This case involved a wrongful death action against doctors on the Medical College of Virginia transplant team, which had been brought by the brother of a decedent whose heart was removed on May 25, 1968 and used in the world’s seventeenth human heart transplant operation. One of the claims was that the operation was commenced before his brother had died. The decedent was admitted to the hospital with severe head injuries. After a neurological operation, he was placed on a respirator. Later it was determined that he had sustained brain death and the respirator was turned off. When the case was sent to the jury, the judge included instructions that allowed the jury to consider all possible causes of death, including injury to the brain, and cessation of breathing or cessation of heartbeat. The jury returned a verdict for the defendants.

Since transplant operations do not usually result in litigation it seems unlikely that case law will be able to provide a more modern definition of death which is supportive of new trends in medical science. A statutory definition of death is the more desirable approach in that it would allow for a wider range of information to enter into the framing of the criteria for determining death. Legislation will not remove the need for reasoned interpretation by physicians and judges, but it can restrict the scope of their interpretations to that which has been found acceptable by the public.

45. See Gray v. Sawyer, 247 S.W.2d 496 (Ky. App. 1952). A good discussion of cases, not involving organ transplantation, but which have rejected brain death as a standard for determining the instant of death can be found in the Comment cited in note 40. See also Vaegemast v. Hess, 203 Minn. 207, 280 N.W. 641 (1938).
46. Tucker v. Lower, No. 2831, Richmond Va., L. & Eq. Ct. (May 23, 1972). Discussion of this case may be found in Capron and Kass, supra note 30, at 98.
48. Id. at 101.
The Uniform Anatomical Gift Act provides only that the time of death shall be determined by the physician attending the donor at his death. It further states that this physician shall not participate in the procedures for removing or transplanting the part. The drafters concluded that it would be inappropriate to incorporate a definition of death because this was considered to be primarily a medical question. This approach ignores the existing conflict between current medical practice and the present law. This conflict must be eliminated if the other provisions of the Act are to have their full intended effect on the science of organ transplantation.

The Act does not preclude a state which has adopted it from enacting legislation dealing more specifically with the determination of death. Although there are technical determinations which should remain within the judgment of the physician, the law must provide a flexible framework of criteria which is supportive of those determinations in light of medical advances.

If legislators approach the issues with a critical and inquiring attitude, a statutory “definition” of death may be the best way to resolve the conflicting needs for definiteness and flexibility, for public involvement and scientific accuracy. This suggests that the legislation defining death should be neither overly general, nor highly specific.

Kansas, Maryland and Virginia are the only states which have enacted legislation which provides a definition of death. These statutes,

49. Act § 7(b). The rational for this provision is to prevent potential conflict of interest situations that might otherwise confront the transplant surgeon.
50. Sadler and Sadler, supra note 24, at 26. But see Comment, Human Organ Transplantation: Some Medico-Legal Pitfalls For Transplant Surgeons, 23 U. of Fla. L. Rev. 134 (1970) at 150, in which the author suggests that it is puzzling that the Act paid such little attention to this problem, and that this was the crippling aspect of the Act.
52. KAN. STAT. ANN. § 77-202 (Supp. 1972); MD. ANN. CODE art. 43, § 54f (Cum. Supp. 1972); CODE OF VA. ch. 19.2 § 32-364.3:1 (1973 Cum. Supp.). The following is the text of the Maryland statute:
(a) A person will be considered medically and legally dead if, based on ordinary standards of medical practice, there is the absence of spontaneous respiratory and cardiac function and, because of the disease or condition which caused, directly or indirectly, these functions to cease, or because of the passage of time since these functions ceased, attempts at resuscitation are considered hopeless; and, in this event, death will have occurred at the time these functions ceased; or
(b) A person will be considered medically and legally dead if, in the opinion of a physician, based on ordinary standards of medical practice and because of a known disease or condition, there is the absence of spontaneous brain function; and if based on ordinary standards of medical practice, during reasonable attempts to either maintain or restore spontaneous circulatory or respiratory function in the absence of spontaneous brain function, it appears that further attempts at resuscitation or supportive maintenance will not succeed, death will have occurred at the time when these conditions first coincide. Death is to be pronounced before artificial means of supporting respiratory and circulatory function are terminated and before any vital organ
which are practically identical, provide alternative definitions of death. The first is based on an absence of spontaneous respiration and cardiac function. The second is based on the absence of spontaneous brain function during attempts to maintain or restore spontaneous circulatory or respiratory function. The latter alternative is clearly intended to be supportive of transplantation processes in that it provides that death is to be pronounced before artificial means of supporting respiratory and circulatory functions are terminated, and before any vital organ is removed for transplantation. At least three commentators have criticized this dichotomy as being a misconception in that it assumes that there are two separate phenomena of death. It seems arguable, however, that the statute is not based upon such an assumption, but rather simply provides alternative methods of determining when death has occurred in varying situations. The following alternative statute has been proposed by one team of commentators who were critical of the statute adopted by Kansas and Maryland:

A person will be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person will be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions. Death will have occurred at the time when the relevant functions ceased.

Since statutes such as these are corollaries to the Uniform Anatomical Gift Act, they would seem to present a proper subject matter for a uniform law. However, since the Act omits such a definition of death, it is the duty of the individual states to examine varying proposals, such as those presented, and to enact appropriate and timely legislation.

In the absence of such legislation and until the existing statutes are supplemented by judicial interpretation, transplant centers, through their physicians and attorneys, should establish a standard policy for determining death in order to insure that the rights of the donor are fully protected. Furthermore, the type of statutory definition of death that most jurisdictions seem likely to adopt, if at all, is that which provides only a framework within which the transplant center must establish and apply its own specific policy for determining death. The presence of such a statute would not make the physician and transplant center totally immune from civil (wrongful death) or criminal liability. They still must conform to ordinary stand-
ards of medical practice in determining death. Therefore, in all jurisdictions, notwithstanding the presence of a statute, the attorney for the transplant center and the physicians must provide the guidance for the development of a policy for determining death which conforms to ordinary standards of medical practice.

**CONTRACT OR TORT LIABILITY FOR ACTIVITIES RELATING TO ORGAN TRANSPLANTATION**

Are the activities of a hospital in procuring, preserving or furnishing an organ for transplantation, or in the performing of other activities relating to the organ which is to be used in a transplant operation, to be construed as the "rendition of a service" or a "sale"? Under either construction, the hospital is liable for negligence or for the breach of an express contractual obligation. Under the latter, however, the hospital would also be vulnerable to strict products liability in tort as well as liability based on implied warranties in the sale. An analogous issue, which has been the subject of much litigation and numerous commentaries, is the liability of the hospital which furnishes blood that is defective in some way. The majority of case law on this question concludes that this does not constitute a sale, but rather is a service. However, transplant centers in most jurisdictions do not have to rely only on an analogy with this line of decisions in order to be protected from strict products liability, or liability based on breach of implied warranties. In a majority of states, the legislatures have enacted statutes which define activities relating to blood transfusions or organ and tissue transplantation to be the rendition of a service.

The history of Illinois' handling of this issue reveals a fundamental disagreement between the Illinois Supreme Court and the Legislature in which the latter has prevailed. The Illinois Supreme Court adopted the Restatement (Second) of Torts view of strict products liability in 1965 in *Suvada v. White Motors*. Five years later, the Illinois Supreme Court held that a hospital which supplied defective blood to a patient had made a sale rather than performed a service; therefore, the hospital was subject to liability under a theory of strict products liability. Seven months after that decision, in response thereto, the Illinois Legislature enacted a statute which provided:

59. 32 Ill. 2d 612, 210 N.E.2d 182 (1965).
The procuring, furnishing, donating, processing, distributing or using human whole blood, plasma, blood products, blood derivatives and products, corneas, bones, or organs or other human tissue for the purpose of injecting, transfusing or transplanting any of them in the human body is declared for purposes of liability in tort or contract to be the rendition of a service... and no warranties of any kind or description nor strict tort liability shall be applicable thereto... 61

Illinois and many other jurisdictions have statutes which protect those engaging in transplant activities from strict products liability or liability for breach of implied warranties. Although there are varying policy considerations to support both sides of the question of the extent of liability, this statutory alternative seems to produce the more desirable result, for the process of organ transplantation, from the standpoint of overall social utility. Such a statute promotes the application and development of new medical techniques in the delivery of health care.

According to the express provision in the Illinois statute, the physician or transplant center warrants to the recipient of the services only that due care has been exercised, and that professional standards of care in providing the service, according to the current state of the medical arts, have been followed. 62 Accordingly, the recipient plaintiff who is seeking damages for an unsuccessful organ transplant must establish negligence on the part of the named defendant(s). The practical effect of this is that unless the defendant's departure from professional standards is clear and substantial, the plaintiff will find it extremely difficult, if not impossible, to sustain his burden of proof on this point. This is because expert testimony will usually be required to establish the breach of the duty of care and there are considerable areas where medical experts will disagree. Furthermore, there is a well known reluctance on the part of physicians to testify against one another. 63

If the plaintiff, notwithstanding these adversities, does proceed with such an action, the physician and transplant center may be able to utilize a provision of the Uniform Anatomical Gift Act in their defense. The Act provides that:

A person who acts in good faith in accord with the terms of the Act... is not liable for damages in any civil action... 64

On its face, this provision suggests that there will be no liability even for negligent acts, if performed in good faith. Absent other legislation which provides for a warranty of due care, this provision arguably represents a bar to the plaintiff's action unless there is a clear showing of bad faith. How-

61. ILL. REV. STAT. ch. 91, § 182 (1971).
63. PROSSER, § 32.
64. ACT 7(c).
ever, even if there is legislation which imposes a duty of due care on the transplant center and physician, this provision may have the reverse effect by showing that public policy is against such liability except in extreme cases.

The result of the operation of all these factors is that the physician and transplant center are practically immune from civil liability for activities relating to organ transplantation, unless there is a clear showing of an extreme departure from professional standards of due care.

CONCLUSION

This survey has demonstrated how judicial decisions and legislative enactments have resulted in the development of the law to a state which is supportive of the science of organ transplantation. This is one area of the law which has, for the most part, been responsive to changing social needs. The most significant legal aspect of organ transplantation which remains under-developed is the concept of death. However, the emerging adoption of a brain death standard in determining legal death is the means by which this deficiency is being removed. This survey serves as a reminder that the continuing explosion of technological advances both affects and is effected by the law; a situation which strains the balance between stare decisis and the need for responsive legal development.

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