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# Legal Problems in Donations of Human Tissues to Medical Science

## I. INTRODUCTION

On December 3, 1967, the first human heart transplant was performed by Dr. Christian Barnard in Capetown, South Africa.<sup>1</sup> Although the achievement received a great deal of attention, it is clear that its principal import is in the perfection of new surgical techniques, rather than in conceptual innovation. Organ transplants have been performed for many years, from the simplest, a blood transfusion, to more complex and hazardous therapeutics, such as skin grafts and kidney transplants.<sup>2</sup> Anatomically, the heart is no more important or necessary an organ than the kidney or the liver, but common subjective notions of the heart's central function have led to greater fanfare over the recent spate of heart transplants following Dr. Barnard's feat than has met earlier surgical firsts.<sup>3</sup> Underlining the legal and ethical problems in any transplant situation, however, is the fact that the heart, to a greater degree than any other organ so far transplanted, must be removed from the donor within a few minutes after death; and unlike the effect upon the recipient of a blood transfusion, removal of the transplant recipient's damaged heart ensures his death if the operation is unsuccessful.

The legal and ethical problems are evident. Given the fame which follows this untried form of therapy, a doctor may be accused of "experimenting" on a patient.<sup>4</sup> Further, since the donated heart must be "alive" at the time of the transplant, the question may arise as to when the donor is sufficiently "dead" to allow removal of the organ. Finally, given the disparity between supply and demand, when a heart does become available, the question arises as to which of the demanding patients is to receive it.

Senator Walter F. Mondale (D-Minn.) recently called for the creation of a congressional commission to study the various legal and ethical problems raised by heart transplants.<sup>5</sup> James Reston, echoing Mondale's concern, summarizes the most compelling issues:

Whose life is to be saved through the miracle of another human heart—the rich man who can afford such prolonged expensive surgery or any

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1. N.Y. Times, Dec. 4, 1967, § A, at 1, col. 2.

2. M. WOODRUFF, *THE TRANSPLANTATION OF TISSUES AND ORGANS* (1960); Couch, Curran & Moore, *The Use of Cadaver Tissues in Transplantation*, 271 NEW ENG. J. MEDICINE 691 (1964); Vestal, Taber & Shoemaker, *Medico-Legal Aspects of Tissue Homotransplantation*, 18 U. DET. L.J. 271 (1955).

3. *The Ethics of Transplants*, The National Observer, Jan. 22, 1968, at 22.

4. *Id.*

5. N.Y. Times, Jan. 12, 1968, § A, at 26, col. 3.

poor man who happens to be around when another heart is available? Is the man or woman of special talent to be saved before some other ordinary mortal, and who is to play God with such momentous questions?

Lacking some kind of standards to deal with these issues of life and death, it is not difficult to imagine situations more ghoulish than the grave robbings of the early days of medical science. Can a hopeless man in desperate financial straits agree to sell his heart to somebody else? Without standards, even a black market in the human body is not entirely beyond imagination.<sup>6</sup>

These problems are obviously not new, but they have been emphasized by the dramatic quality of heart transplantation. Further, they are only a part of a much greater problem. As medical research advances, both cadavers and live organs will be in increasingly greater demand. Lest press and commentators seem alarmists, a review of the present state of the law in these areas should suffice to show the need for drastic reform. The law is far behind the problems produced by medical innovation; and most statutory and judicial authority is yet unable to cope with the disposition of cadavers, much less donation of live organs, definitions of death, or allocation of available organs. In general, the existing law in respect to the disposition of cadavers has concentrated only on the most basic problems, seeking to accommodate the sometimes conflicting policies of following the wishes of the deceased, following the wishes of the surviving spouse and next of kin, and making available sufficient cadaver material to train doctors, conduct research, and transplant healthy tissue into bodies needing repair.<sup>7</sup> The law should provide the solution for these conflicts; yet even though these conflicts pertain for the most part only to the dead and the law of the living is practically non-existent, the methods of the former may illuminate the paths that should be followed by the latter. This note will review some of the major problem areas, suggest needed reforms, and outline current progress toward that end.

## II. BACKGROUND: ANATOMY AND AUTOPSY LAWS

In the nineteenth and early twentieth centuries both medical and legal science concentrated on the disposition of cadaver materials, which were used for anatomical training in medical schools, and less extensively for research.<sup>8</sup> As the demand for cadaver material grew, the law attempted, often within the confines of the common law, to deal with the problems created.

6. Reston, *Washington: The Legal and Ethical Side of the Heart Cases*, N.Y. Times, Jan. 12, 1968, § A, at 26, col. 3.

7. Note, *Donation of Dead Bodies and Parts Thereof for Medical Use*, 21 U. PITT. L. REV. 532, 534-35 (1960).

8. Comment, *The Law of Dead Bodies: Impeding Medical Progress*, 19 OHIO ST. L.J. 455, 459-60 (1958). The research in the field of arterial transplantation with

### A. Anatomy Laws

Under the nineteenth century's limited demands for cadavers, problems of adequate regulation and insurance of supply were met by the anatomy laws, which provided that unclaimed bodies of persons who died in public institutions could be given to medical schools for anatomical studies.<sup>9</sup> This solution fairly adequately met the several competing policies, in effect then and now, that (1) the wishes of the deceased should be followed; (2) under the common law the wishes of the surviving spouse and next of kin should be followed; and (3) public policy demanded that medical researchers and educators be adequately supplied with cadavers in order to promote scientific progress. These statutes also gained impetus from a desire to halt the fairly frequent practice of grave robbing.<sup>10</sup>

Modern needs are ill met by these statutes. First, social legislation provides burial funds for those not otherwise able to afford such expenses, thus eliminating the primary reason for failure to claim bodies of friends and relatives.<sup>11</sup> Second, there are but few such unclaimed bodies in any case, and the quantity has most likely declined while the demand has risen.<sup>12</sup> Third, in nearly all the anatomy laws there is a provision for a waiting period before the body may be claimed,<sup>13</sup> thus seriously diminishing the body's utility for surgical purposes, particularly when cadaver material, in order to be useful, must often be removed within minutes after death. Fourth, the anatomy laws may work to hinder efficient allocation of available resources since many of the statutes provide that the cadaver must go to a medical school within the state.<sup>14</sup> Finally, the body must be returned for burial upon demand by a relative, a requirement particularly detrimental to the cause of transplantation, since the entire body must be returned,<sup>15</sup> in accordance with the common law quasi-property rights of the next of kin in the body of the deceased. It is obvious that the anatomy laws are of little or no value to the cause of medical research, both because of their restrictions, and because of the quantitative and qualitative demands of medical science.

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which this comment is concerned laid the foundation for many later applications. See also Vestal, Taber & Shoemaker, *supra* note 2.

9. For a compilation of state statutes, see Comment, *supra* note 8, App. I, at 475.

10. Comment, *supra* note 8, at 460.

11. Comment, *supra* note 8, at 462.

12. Comment, *supra* note 8, at 462.

13. The tissues and organs which are used for transplantation are classified as "critical" and "noncritical." "Critical tissues are those whose usefulness depends upon their viability, but whose viability is lost so rapidly at normal temperature that post-mortem legal procedures, tissue procurement and transplantation must be completed in a matter of minutes. . . . Noncritical tissues can be removed at leisure 'after death.'" Couch, Curran & Moore, *supra* note 2, at 691-92.

14. Comment, *supra* note 8, at 463-64.

15. Comment, *supra* note 8, at 463-64.

### B. Autopsy Laws

A second possible means of obtaining cadaver material is via the autopsy laws. Autopsy is the "[d]issection of a dead body for the purpose of ascertaining the cause, seat, or nature of a disease."<sup>16</sup> Case law suggests that the performance of an autopsy requires not only the removal of internal parts, but also their replacement, excepting those parts retained for microscopic study.<sup>17</sup> These decisions are based upon the theory that the deceased has a right to burial intact and that relatives have a right to possession of the whole body.<sup>18</sup> The argument advanced for abandonment of this removal and replacement requirement is that permanent removal is customary; hence any general authorization allowing autopsy should be presumed to permit the permanent removal of internal organs.<sup>19</sup> This argument is, however, easily refuted, since in the autopsy situation the public is not sufficiently aware of non-replacement practices, and therefore cannot be charged with such authorization.<sup>20</sup>

The autopsy statutes do not solve the removal and replacement problem, since they are ordinarily not concerned with limitations on the scope of autopsy.<sup>21</sup> Some statutes, however, might be judicially construed to allow permanent removal of parts for transplantation purposes through interpretation of two provisions.<sup>22</sup> First, autopsy permission can be granted by the deceased, and the extent or nature of the autopsy is not limited; and second, autopsy permission may be granted by the surviving spouse or next of kin "for the purpose of ascertaining the cause of death." These features might support such a statutory construction, but this is unlikely, since the weight of authority and policy lean to the contrary.<sup>23</sup>

Thus, due to judicial decree or statutory provision, autopsy is generally not an effective means of supplying needed cadaver material.<sup>24</sup> Even a statutory revision allowing permanent retention of body parts would not make the autopsy any more feasible as a source of supply for transplants since the operation is normally per-

16. B. MALOY, *THE SIMPLIFIED MEDICAL DICTIONARY FOR LAWYERS* 83 (3d ed. 1960).

17. *In re Disinterment of Jarvis*, 244 Iowa 1025, 58 N.W.2d 24 (1953).

18. See B. SHARTEL & M. PLANT, *THE LAW OF MEDICAL PRACTICE* 64 (1959); Comment, *supra* note 8, at 465. See also 4 ARK. L. REV. 480 (1950).

19. Comment, *supra* note 8, at 465.

20. Comment, *supra* note 8, at 465.

21. See, e.g., IOWA CODE ANN. § 141.35 (Supp. 1966); PA. STAT. ANN. tit. 35, § 1111 (1964).

22. Note, *supra* note 7, at 533.

23. See text accompanying notes 17 & 18 *supra*.

24. The cases, however, have not clearly decided the legality of taking tissue during an autopsy for therapeutic benefit. See Vestal, Taber & Shoemaker, *supra* note 2, at 291.

formed too long after death for the removed organ to be viable, and thus useful.<sup>25</sup>

### III. GIFT

Gift appears to be the most feasible means of supplying medical science with needed cadaver material. There are important common law principles which complicate this method, but statutory modifications and an increased public awareness have alleviated some of the problems.<sup>26</sup> However, the effectiveness of gifts of human tissue is complicated by the developments in transplantation requiring that cadaver material be removed and utilized almost immediately after death; whereas cadavers used for anatomical study are not subject to such use restrictions. These complexities will be developed more fully below.

#### A. Common Law Gift

Under the English common law there were no property rights in a dead body which would permit a gift.<sup>27</sup> Initially this rule was accepted by American courts,<sup>28</sup> but was soon rejected in favor of "quasi-property" rights<sup>29</sup> which include the right to possession for purposes of burial,<sup>30</sup> the right to recover damages for mutilation of a dead body,<sup>31</sup> the right to prescribe the manner and place of burial,<sup>32</sup> and the right to make a contract for an autopsy after death.<sup>33</sup> Courts have not, however, for obvious policy reasons, extended these rights

25. See note 13 *supra* and accompanying text.

26. N.Y. Times, Jan. 17, 1968, § A, at 18, col. 3: "Seven persons in every 10, or a projected 80 million Americans, say they would be willing to have their heart or other vital organs donated to medical science upon their deaths, the Gallup poll reported. . . ."

27. The English rule was developed from a dictum by Lord Coke, noted in P. JACKSON, *THE LAW OF CADAVERS* 127 (2d ed. 1950), and clearly expressed in *Williams v. Williams*, 20 Ch. D. 659 (1882). See also WEINMANN, *A Survey of the Law of Dead Human Bodies*, 73 BULL. OF THE NAT'L RESEARCH COUNCIL 21 (1929).

28. *Bogert v. City of Indianapolis*, 13 Ind. 134 (1859).

29. The courts have reasoned that these rights arise from (1) the duty to bury the deceased, *Pettigrew v. Pettigrew*, 207 Pa. 313, 56 A. 878 (1904); and (2) the deceased's right to a decent burial, *Persinger v. Persinger*, 39 Ohio Op. 315, 86 N.E.2d 335 (C.P. 1949). The latter right is thought to have evolved from the influence of Christian doctrine upon the ecclesiastical courts of England. Comment, *supra* note 8, at 456.

30. *Pierce v. Swan Point Cemetery*, 10 R.I. 227 (1872).

31. *Streipe v. Liberty Mut. Life Ins. Co.*, 243 Ky. 15, 47 S.W.2d 1004 (1932).

32. *Sacred Heart of Jesus Polish Nat'l Catholic Church v. Soklowski*, 159 Minn. 331, 199 N.W. 81 (1924); *Pettigrew v. Pettigrew*, 207 Pa. 313, 56 A. 878 (1904); *Pierce v. Swan Point Cemetery*, 10 R.I. 227 (1872); *Goldman v. Mollen*, 168 Va. 345, 191 S.E. 627 (1937). In each of these cases the court decided who had the right to control the disposition of a dead body, thus presupposing the existence of such a right.

33. *Aetna Life Ins. Co. v. Lindsay*, 69 F.2d 627 (7th Cir. 1934).

to include full property rights such as the right to sell, trade, or otherwise dispose of a body in a commercial manner.<sup>34</sup> The most significant problem in this area concerns the persons in whom these rights vest; most importantly, whether the right to prescribe the disposition of the body vests in the deceased.

No case has specifically held that a person may control absolutely the disposition of his own body. Thus, the deceased's rights must be derived from the four common law "quasi-property" rights mentioned above. Of these, only the right to control the manner and place of burial and the right to contract for an autopsy are relevant, as the others pertain to the survivors.

Several conflicting policies combine to limit the right to prescribe the manner and place of burial. Thus, although the wishes of the deceased are relevant, so too are the wishes of the surviving spouse and next of kin, as well as the community's standards of propriety and decency. In attempting to resolve conflicts among these policies, courts generally look to such factors as the wish of the deceased,<sup>35</sup> his religious beliefs and convictions,<sup>36</sup> the emotional tie between the deceased and an adverse claimant of the body,<sup>37</sup> the relationship of the parties before the court, the practicability of carrying out the wish of the deceased<sup>38</sup> and a judicial predisposition to disfavor reinter-

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34. *Larson v. Chase*, 47 Minn. 307, 50 N.W. 238 (1891). Courts hesitated to extend these rights in a dead body to include full property rights because of feared abuses, such as collection for debts.

35. *See, e.g., Cordts v. Cordts*, 154 Kan. 354, 118 P.2d 556 (1941) (wish of deceased and emotional tie with defendants outweighed judicial opposition to reinterment—priority not an issue, since plaintiff and defendants were children of deceased); *Holland v. Metalious*, 105 N.H. 290, 198 A.2d 654 (1964) (wishes of deceased outweighed by impossibility of performance and emotional ties between plaintiff and deceased); *Johnston v. Marinus*, 18 Abb. N. Cas. 72 (N.Y. Sup. Ct. 1886) (wish of deceased and greater emotional tie to husband given priority over brothers and sisters); *Herold v. Herold*, 16 Ohio Dec. 303 (C.P. 1905) (wish of deceased outweighed by strong emotional ties to wife as opposed to father); *Burnett v. Surratt*, 67 S.W.2d 1041 (Tex. 1934) (wish of deceased outweighed priority of wife over executor since deceased and wife were estranged at time of death); *Wright v. Harned*, 163 S.W. 685 (Tex. 1914) (wife had priority over executor even though wife and deceased estranged at time of death).

36. *See, e.g., Sacred Heart of Jesus Polish Nat'l Catholic Church v. Soklowski*, 159 Minn. 331, 199 N.W. 81 (1924); *Scott v. Riley*, 16 Phila. 106 (1883), for discussions of weight to be attached to religious conviction of deceased.

37. *See* cases cited note 41 *infra*. The emotional tie element is nearly always present, and given great weight, since it relates to the policy of protecting the feelings of the survivors. *But see* *Burnett v. Surratt*, 67 S.W.2d 1041 (Tex. 1934), where father was given priority over wife because wife and deceased were estranged at time of death.

38. An influential factor when applicable is the impossibility or impracticability of carrying out the wish of the deceased. In *Holland v. Metalious*, 105 N.H. 290, 198 A.2d 654 (1964), the deceased had donated her body to science and asked that she not be buried. The gift was rejected, and the court ordered burial.

ment.<sup>39</sup> In utilizing such factors, the courts have developed a balancing test in which each positive factor, that is, a factor coinciding with the wish of the deceased, is balanced against the negative factors. Naturally, the weight to be given to each factor will vary with the factual setting. For example, the religious conviction of the deceased may weigh heavily where it was of subjective importance, while the same factor may be discounted where it appears less intense. The emotional tie factor, particularly when offset by the relationship of opposing parties factor, will be weighed not only relative to community standards of decency and propriety,<sup>40</sup> but also in terms of a system of proprieties, favoring first the surviving spouse, then next of kin, and finally the executor or administrator.

Several conclusions may be drawn from the cases noted. Where all factors are marshalled in favor of one result, that result is likely to follow. However, emotional factors, such as strong ties between the parties and the deceased, religious beliefs, and the wishes of the deceased are likely to be weighted more heavily than such non-emotional factors as a judicial predisposition against reinterment. Finally, even though a majority of courts say that in the absence of testamentary disposition the survivors have some form of control over the body,<sup>41</sup> the results are none the less likely to vary with the facts.

The second factor suggesting the deceased's right to control the disposition of his body is his capacity to enter into a contract with an insurer for an autopsy after death.<sup>42</sup> Many courts have upheld the validity of such agreements, reasoning that since this is an intentional contract, it should not be avoided, and that it is in the interest of justice to finalize and determine the cause of death. An autopsy may be authorized also in workmen's compensation cases, even against dissent by the survivors; and finally, public policy demands the same in cases of suspicious circumstances surrounding death. This latter authorization is contained in the 1954 Model Post-Mortem Examinations Act of the National Conference of Commissioners on Uniform State Laws.

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39. *Cordts v. Cordts*, 154 Kan. 354, 118 P.2d 556 (1941).

40. See cases cited note 41 *infra*. See also N.Y. Times, Jan. 12, 1968, § A, at 26, col. 3. There, a mortally wounded man's wife gave permission for her husband's removal from Connecticut to New York as a possible heart donor. The superior court judge granted leave to remove, provided no other member of the victim's family objected. The victim's sister and mother both protested, and the judge refused to consider the case further.

41. See, e.g., *O'Donnell v. Slack*, 123 Cal. 285, 55 P. 906 (1899); *Larson v. Chase*, 47 Minn. 307, 50 N.W. 238 (1891); *Fox v. Gordon*, 16 Phila. 185 (1883); *Curlin v. Curlin*, 228 S.W. 602 (Tex. 1921); *Wood v. Butterworth & Sons*, 65 Wash. 344, 118 P. 212 (1911).

42. *Aetna Life Ins. Co. v. Lindsay*, 69 F.2d 627 (7th Cir. 1934); *Standard Acc. Ins. Co. v. Rossi*, 35 F.2d 667 (8th Cir. 1929); *Schmeideke v. Travelers Ins. Co.*, 30 F. Supp. 640 (N.D. Tex. 1940).



Thus, although the deceased does have some control over the disposition of his body under the common law, the right is generally limited to transitory dispositions which do not affect the survivors' feelings so greatly as a permanent disposition such as a gift to science. Moreover, even in jurisdictions which expressly authorize an ante-mortem gift by statute, some courts have indicated that such a gift may be repudiated by the next of kin.<sup>43</sup> Clearly, effective remedial legislation must not only strive toward uniformity, but must also insure a more nearly absolute power of disposition in the deceased.

### B. Statutory Gift: Current Statutes

So far, forty-two states,<sup>44</sup> the District of Columbia,<sup>45</sup> and several territories and foreign countries<sup>46</sup> have adopted legislation permitting ante-mortem donation to science of all or parts of the body. There is, however, little uniformity among these statutes.<sup>47</sup>

#### 1. Donative Authority.—Generally, the first section of the statutes

43. See Couch, Curran & Moore, *supra* note 2.

44. ALA. CODE tit. 22, § 184 (1958); ALASKA STAT. § 13.05.035 (1962) (eyes only); ARIZ. REV. STAT. ANN. § 36-841 *et seq.* (1956); ARK. STAT. ANN. § 82-406 *et seq.* (1960); CAL. HEALTH & SAFETY CODE § 7100 (West 1955); COLO. REV. STAT. ANN. § 91-3-5 *et seq.* (1963); CONN. GEN. STAT. REV. § 19-139 (Supp. 1965); FLA. STAT. ANN. § 736-08 *et seq.* (1963); GA. CODE ANN. § 88-2001 *et seq.* (Supp. 1967) (eyes only); HAWAII REV. LAWS § 64-14 (Supp. 1965); ILL. ANN. STAT. ch. 3, § 42(a) (Smith-Hurd 1961); IND. ANN. STAT. § 6-510 *et seq.* (1967); IOWA CODE ANN. § 142.12 (Supp. 1966); KY. REV. STAT. ANN. § 311.352-56 (1963); LA. REV. STAT. ANN. § 17:2351-5 (1963); ME. REV. STAT. ANN. tit. 22, § 2881 *et seq.* (1964) (eyes only); MD. ANN. CODE art. 43, § 149 (1965); MASS. GEN. LAWS ch. 113, § 7-10 (Acts 1967); MICH. STAT. ANN. § 14.523 (Supp. 1968); MINN. STAT. ANN. § 525.18 (Supp. 1967); MISS. ACTS (1966), H.B. No. 1070; MO. ANN. STAT. § 474.310, 194.190 (Supp. 1967); MONT. REV. CODES ANN. § 69-2311 *et seq.* (Supp. 1967); NEB. REV. STAT. § 71-1339 *et seq.* (Supp. 1965); NEV. REV. STAT. § 451.440 *et seq.* (1963); N.J. REV. STAT. § 26:6-51 (1964) (eyes only); N.M. STAT. ANN. § 12-11-1 *et seq.* (Supp. 1967); N.Y. PUB. HEALTH LAW § 4201 (McKinney 1964); N.C. GEN. STAT. § 90-216.1 *et seq.* (1965); N.D. CENT. CODE § 23-06-01 (Supp. 1967); OKLA. STAT. tit. 63, § 105 *et seq.* (1964); ORE. REV. STAT. § 97.132 *et seq.* (1961); PA. STAT. ANN. tit. 35, § 5001 (1964); R.I. GEN. LAWS ANN. § 23-42-1 (Supp. 1966); S.C. CODE ANN. § 32-701 (1962) (eyes only); S.D. CODE § 27.1302 (1939); TENN. CODE ANN. § 32-601 *et seq.* (Supp. 1967); TEX. REV. CIV. STAT. ANN. art. 4590-1 (1960); VA. CODE ANN. 32-364.1 (Supp. 1966); WASH. REV. CODE ANN. § 68.08.250 *et seq.* (1962); W. VA. CODE ANN. § 16-19-1 (Supp. 1967) (eyes only); WIS. STAT. ANN. § 155-06 (Supp. 1967).

45. D.C. CODE ANN. § 2-251 *et seq.* (Supp. 1966).

46. *E.g.*, Ontario, STATS, 1962-63, ch. 59; United Kingdom, Human Tissues Act 1961, P.R. LAWS ANN. tit. 18, § 722 *et seq.* (1961); France, Decree No. 472057 of Oct. 20, 1947, and Regulations of Jan. 26, 1948; Italy, Presidential Decree of September 3, 1965.

47. The following discussion will consider the statutes as an aggregate, rather than dwelling upon the many considerable differences.

establishes the general grant of authority<sup>48</sup> to a person either to dispose or to arrange for the disposition of his body,<sup>49</sup> or to make a gift of his body.<sup>50</sup> The former grant is considerably broader, although it can easily be construed to permit only a gift. This would seem more reasonable, since it will prevent possible abuses, such as attachment of the body for debt collection, ante-mortem sale under duress, or the like.

Regardless of the language used in the general grant of power, every state has sought to limit the authorization. One such limitation is found in provisions concerning the purpose for which one may donate his body. The use-oriented provision authorizes a person to donate his body for the "advancement of medical science, or for the replacement of diseased or worn out parts of other humans or for the rehabilitation of human parts or other organs."<sup>51</sup> The purpose-oriented provision authorizes a gift for the general purpose of furthering medical science.<sup>52</sup> Finally, the institution-oriented provision authorizes a gift only to specifically enumerated medical or medically related institutions.<sup>53</sup> None of these is complete. The first may not include anatomical study; the second does not specifically authorize transplantations; and the third defines no explicit purposes at all, while at the same time very possibly impeding efficient allocation of resources. A carefully drawn statute would combine specificity with flexibility, so as to authorize anatomical study, advancement of medical research, experimentation, and transplantation, while simultaneously making provision for use wherever required in furthering the policy of the statute.

The general grant of donative power vests only in certain persons, either the deceased<sup>54</sup> or his survivors.<sup>55</sup> Vesting of the donative power in both classes would facilitate the purpose of the statute—increasing the chance of donation.<sup>56</sup> However, provision should also be made insuring that the survivors cannot overrule the wishes of the deceased, whether he did or did not desire to donate his body.<sup>57</sup>

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48. ALA. CODE tit. 22, § 184(1) (1958); MICH. STAT. ANN. § 14.523(1) (Supp. 1968).

49. ARK. STAT. ANN. § 82-408 (1960).

50. MICH. STAT. ANN. § 14.523(1) (Supp. 1968).

51. ALA. CODE tit. 22, § 184(1) (1958).

52. N.M. STAT. ANN. § 12-11-1 (Supp. 1967).

53. ARIZ. REV. STAT. ANN. § 36-841 (1956).

54. LA. REV. STAT. ANN. § 17.2351 (1963).

55. N.M. STAT. ANN. § 12-11-2 (Supp. 1967).

56. The statute should define the priorities among survivors in whom the power vests. A typical example is KY. REV. STAT. ANN. § 311.354 (1963): "(a) the surviving spouse, if any, and if none, (b) The person or persons who are entitled to the real property of the deceased . . . and if none, (c) The person, agency, or institution, or organization having the obligation to bury such body."

57. WASH. REV. CODE ANN. § 68.08.260 (1962).

2. *Execution of Gift.*—State statutes generally demand certain formalities in drafting the instruments of donation. Four methods are provided among the statutes: by will,<sup>58</sup> by any written instrument,<sup>59</sup> by an instrument executed as a deed,<sup>60</sup> or by oral declaration.<sup>61</sup> Two factors determine the degree of formality required—proof of donation and ease of execution of the gift. For example, an instrument in the form of a deed may be sufficient proof of donative intent, but may be so inconvenient as to discourage donation.<sup>62</sup> On the other hand, an oral declaration provides simplicity, but creates problems, if proof of donative intent becomes necessary. Thus, a simple written instrument<sup>63</sup> expressing donative intent seems to provide an adequate solution, combining ease of formation with sufficiency of evidentiary utility. A gift by will has the problems already mentioned concerning delay in the execution of the gift. Since speed is normally of the essence if the gift is to be beneficial for transplantation or similar purposes, a provision permitting the bypassing of probate is desirable.

Closely associated with the form of the instrument are the procedures required after the instrument has been executed. Some states require filing in the district probate court,<sup>64</sup> while others require filing with the donee<sup>65</sup> or with the donee and a third party of the donor's choosing.<sup>66</sup> Similar objections and compromise solutions emerge from these possibilities. Filing with the probate court would seem to place a greater burden on the donor, while filing only with the donee could result in fraud or mistake. Thus, the third-mentioned solution would seem to settle these objections. Remedial legislation should here be explicit, so as to simplify problems of proof, yet also seek to ease the burden upon the donor, thus encouraging donations.

The last limitation on the grant of donative power in the current state statutes concerns the language required to evidence donative intent. Most statutes require the donor's "clear intention" to be shown.<sup>67</sup> One state, however, requires substantial compliance with a form set out in the statute.<sup>68</sup> It would seem that since courts are

58. N.C. GEN. STAT. § 90-216.1 (1965).

59. ILL. ANN. STAT. ch. 3, § 42(a)(2) (Smith-Hurd 1961).

60. ALA. CODE tit. 22, § 184(1) (1958).

61. ME. REV. STAT. ANN. tit. 22 § 2881 (1964); NEB. REV. STAT. § 71-1340 (Supp. 1965).

62. Requiring the donative instrument to be in the form of a deed could tend to discourage donations, since it would require both the formalities of execution and filing.

63. Most states require that the donative instrument be signed by the donor and two competent witnesses. N.M. STAT. ANN. § 12-11-3 (Supp. 1967).

64. ALA. CODE tit. 22, § 184(1) (1958).

65. TENN. CODE ANN. § 32-603 (Supp. 1967).

66. *Id.*

67. LA. REV. STAT. ANN. § 17:2353 (1963).

68. MD. ANN. CODE art. 43, § 149(b) & (e) (1965).

not strangers to determination of intent in other cases, the donor's "clear intent to make the gift" should suffice.

Generally the donative instrument does not state the point in time at which the gift becomes effective. Statutory remedies are a necessity in overcoming this problem. Since the body begins to decay immediately upon death, the uses to which any organ may be put for transplant purposes becomes correspondingly remote. Thus legislation should provide for immediate effectiveness of the gift upon the death of the donor.<sup>69</sup>

3. *Revocation.*—Procedures should be made available to allow the donor to revoke his prior exercise of donative power. The state statutes typically require that the revocation of the gift be made in the same form in which it was executed.<sup>70</sup> Although this approach seems reasonable, a last moment change of mind by the donor may make this procedure impossible to follow. Thus, it is questionable whether the revocation should be in writing at all, or whether the original donative instrument should be returned or destroyed. On the other hand, if the purpose of the statute is to promote such donations, it might be deemed wise to require equivalent formalities for revocation, since the true intent of the donor might be better measured by his state of mind when healthy, at the time of execution of the gift, than at the time of a later *causa mortis* revocation. A reasonable statutory compromise would be to require only a legally sufficient revocation, leaving to the courts the determination of intent. But even this raises the possibility of fatal delay during litigation. The policy question regarding the donor's ease of revocation must be resolved in light of the purpose of furthering such donations in a setting in which speed is of the essence.

4. *Conflicting Gifts.*—In the case of the execution of conflicting gifts—such as a gift of the whole body to one donee, and specific organs to another, or gifts of the entire body to each of two donees—resolution must be statutory. The Connecticut statute, the only such measure to deal with the problem, provides that in the former case,

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69. ILL. ANN. STAT. ch. 3, § 42(a)(2) (Smith-Hurd 1961). Some states have further clarified the issue by providing that a gift by will is effective immediately, even though the will may never be offered into probate or may be declared void in future proceedings. CAL. HEALTH & SAFETY CODE § 7100 (West 1955). Other states provide that a gift by will is effective immediately, without court order or survivors' consent. LA. REV. STAT. ANN. § 17:2351 (1963).

70. Thus, an instrument filed in the probate court may be revoked only by filing another instrument in the same court. TEX. REV. CIV. STAT. ANN. art. 4590-1(3) (1960). Or an instrument filed with the donee may be revoked only by securing the return of the instrument from the donee. MICH. STAT. ANN. § 14-523(5) (Supp. 1968).

the gift of the whole body will prevail,<sup>71</sup> on the theory that greater benefit will derive therefrom, while in the latter case, the last executed gift prevails, because of probable intent of the donor and the theory that the later donee will more likely be present to claim the gift.<sup>72</sup> Uniform remedial legislation would be incomplete without a provision to cover such contingencies.

5. *Rights of Donee.*—In any statutory scheme authorizing gifts of human tissue, the rights, duties and liabilities of the donee and survivors should be affirmatively defined. The donee, or his agent, in order to make effective use of the gift, should be free from the contests of survivors. This would seem to be a corollary of other provisions in some state statutes,<sup>73</sup> but rarely are the donee's rights affirmatively defined. In addition, the donee's duties should be enumerated. If the gift is only of an organ, rather than the entire body, the donee's first duty is to use reasonable care in removal and preservation of the remainder,<sup>74</sup> since the body should be returned to the survivors in a condition suitable for burial. The donee further should not accept a gift with knowledge of effective revocation.<sup>75</sup> Further duties relating to the nature and quality of information that a donee must give a live donor or a transplant recipient will be discussed later in this note.

No state statute defines the donee's liability for a failure to act in good faith in returning the body to the survivors in a condition suitable for burial, for exceeding the terms of the donation, or for accepting a donation with knowledge of revocation. It would appear, however, that the donee would be liable in tort as if he had negligently performed an operation, or had exceeded the consent of a patient. However, there are corollary difficulties regarding the characterization of such an action as arising in tort or as a matter of decedent's estates, which complicates possible conflict of laws problems, to be dealt with in more detail later. In any case, remedial legislation should contain a definitive statement of liability consequences, so as to obviate judicial uncertainty.

6. *Rights of Survivors.*—Just as the donee's rights, duties and liabilities should be defined, so should the survivors'. Survivors' rights include: (1) the right to possession of the body after the terms of

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71. CONN. GEN. STAT. REV. § 19-139(c)(b) (Supp. 1965).

72. CONN. GEN. STAT. REV. § 19-139(c)(d) (Supp. 1965).

73. This right may be inferred from the provisions relating to immediate effectiveness of the gift, ILL. ANN. STAT. ch. 3, § 42(a)(2) (Smith-Hurd 1961) and the penalty for interference with the donation, ARK. STAT. ANN. § 82-410 (1960).

74. This duty is positively defined in some statutes, e.g., MICH. STAT. ANN. § 14.523(4) (Supp. 1968).

75. ILL. ANN. STAT. ch. 3, § 42(a)(2) (Smith-Hurd 1961).

the donation have been fulfilled, in the case of a gift only of organs, or in the case of a rejected gift;<sup>76</sup> (2) the right to have the body returned unmutated, in the case of a gift only of organs;<sup>77</sup> and (3) the right to perform last rites over the deceased, where time is not of the essence.<sup>78</sup> Where the gift will be disposed of to a medical school or similar institution, and where time is of the essence, at least one statute implies that the survivors have no right to possession of the body.<sup>79</sup> The survivors are under a duty to act faithfully and promptly to fulfill the terms of the gift.<sup>80</sup> This duty is imposed on them since they will normally be the first to learn of the donor's death, and should not be allowed to thwart the donor's wish and the statutory policy of encouraging such gifts by failure to notify and cooperate with the donee. Liability is imposed upon the survivors for interference with the execution of the gift,<sup>81</sup> where the survivor does not act in good faith and has actual knowledge of the gift.<sup>82</sup> A stricter standard, in conformity with the policy of the statutes to encourage donation, could impose liability upon the survivor who interferes with execution of the gift in the good faith belief that the gift is invalid or nonexistent. The statutes defining the survivors' liability<sup>83</sup> are sufficiently stringent to demand compliance.

### C. *The Uniform Anatomical Gift Act*

The Conference of Commissioners on Uniform State Laws currently has under study a tentative draft of the Uniform Anatomical Gift Act. Drafted under the chairmanship of Professor E. Blythe Stason, the statute is scheduled to be submitted to the state legislatures late in 1968.<sup>84</sup> Many of the problems currently unsolved by state statutes would be greatly mitigated by the adoption of this statute, although in light of the special problems raised by the more dramatic forms of transplant surgery, many will remain unsolved.<sup>85</sup> This section of the note will discuss the Uniform Act's solution to the problems raised in the preceding discussion of current state

76. TENN. CODE ANN. § 32-606 (Supp. 1967).

77. This right is corollary to the duty of the donee to use reasonable care. See text accompanying note 74 *supra*.

78. MICH. STAT. ANN. § 14.523(4) (Supp. 1968).

79. This would seem to be the implication of TENN. CODE ANN. § 32-606 (Supp. 1967).

80. CAL. HEALTH & SAFETY CODE § 7100 (West 1955).

81. ARK. STAT. ANN. § 82-410 (1960).

82. TENN. CODE ANN. § 32-608 (Supp. 1966).

83. CONN. GEN. STAT. REV. § 19-139(c)(b) & (d) (Supp. 1965).

84. Lyons, *Lawyers and Physicians Assess the Legal Obstacles to Organ Transplants*, N.Y. Times, Jan. 17, 1968, at 18, col. 6.

85. See Part V *infra*.

statutes, reserving examination of broader social and ethical questions for a later treatment.

Beginning by defining various terms used in the statute,<sup>86</sup> the Uniform Act clearly reflects encouragement of flexibility in adapting to advances in medical science and administration of medical facilities. The most important provision is subsection 1(e), which defines "licensed bank or storage facilities." Although not describing such an institution in detail, the subsection's implication is that growth in the transplant area will someday require such facilities, similar to blood and eye banks, to meet growing needs.

As to competency to make a gift, the Uniform Act looks to state law, requiring only that the ante-mortem donor be competent to make a will.<sup>87</sup> However, the Act broadens the authority to make a gift to include survivors, in the general order of intestate successors, provided a contrary wish of the decedent has not been made known.<sup>88</sup> In case of a controversy among the survivors, the Act provides that the donee shall not accept the gift.<sup>89</sup> However, this provision is unclear, as it applies only to the situation in which there is a "controversy among the classes of relatives named," apparently abandoning the priorities in the grant of authority to ordered classes.

Donees and purposes for which the gift may be used are broadly stated to include all medically-oriented research, therapeutic, and educational facilities, without geographical limitation, and including provision for future widespread use of central storage facilities.<sup>90</sup>

The manner of execution of anatomical gifts is liberally defined in the Act. The gift may be made by will, in which case it becomes effective immediately upon the death of the donor, without awaiting probate;<sup>91</sup> and even where the will is declared invalid, a gift acted upon in good faith is none the less effective.<sup>92</sup> A gift may also be made by any other signed and attested document, delivery to the donee not being required. Perhaps the most significant provision of this section is that which allows the document to take the form of a wallet-sized card to be carried on the donor's person,<sup>93</sup> so that in case of accidental mortal injury, or death far removed from the domicile of survivors or donee, the gift may yet be "published," so as further to effectuate the donor's intent. In such a case, or in the

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86. UNIFORM ANATOMICAL GIFT ACT § 1 (Tent. Draft No. 2, 1968) [hereinafter cited as UAGA].

87. UAGA § 2(a).

88. UAGA § 2(b).

89. *Id.* See text accompanying note 40 *supra*.

90. UAGA § 3.

91. UAGA § 4(a).

92. *Id.*

93. UAGA § 4(b).

case where no particular donee has been named, the attending physician at the donor's death is authorized to accept and utilize the gift in his discretion as the "agent" of the donee.<sup>94</sup> Revocation of gifts may be either by a writing delivered to a donee in possession of a previously executed instrument of gift, or orally, or by dying declaration to the attending physician, or by a card carried on the person similar to the document of gift.<sup>95</sup> A gift by will may be revoked in the usual manner.<sup>96</sup>

The rights and duties of the donee give broad discretion as to use of the gift, imposing only a duty of care in refraining from undue mutilation in the case of a gift of less than the whole body.<sup>97</sup> The donee is immunized from damage suits by any interested party if his acceptance and use of a gift was in good faith and without actual notice of revocation.<sup>98</sup>

The Uniform Act makes no provision for the situation in which conflicting gifts are made to two or more donees, and although the situation would no doubt be rare, it should be provided for, lest adjudication cause delay and possibly render the gift valueless to any party. It is questionable whether the other deficiencies in the statute, to be discussed below, are properly remediable by legislation at all.

In the overall statutory scheme, one further provision should be noted: qualifying the rights of the donee, application of the Uniform Act is expressly made conditional upon the operation of any state statute prescribing the powers and duties with respect to autopsies.<sup>99</sup> Although the state surely has an interest in determining the cause of a donor's death where suspicious circumstances appear, such a provision could in the long run undermine the policies of the Act. Particularly is this true where the donor has died violently, and except for a localized injury, has healthier organs than would be the case if the entire body were adversely affected by disease. However, the conflicting policies should probably be resolved in the manner set out in the draft statute, lest the cause of justice be thwarted by allowing a gift of evidence.

#### IV. OTHER LEGAL PROBLEMS

##### A. *Conflict of Laws Problems*

Adoption of the Uniform Anatomical Gift Act would relieve most of

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94. UAGA § 4(c). See also N.M. Stat. Ann. 12-11-3 (Supp. 1965).

95. UAGA § 6(a).

96. UAGA § 6(c).

97. UAGA § 7(a).

98. UAGA § 7(b).

99. UAGA § 7(c). See also text accompanying note 40 *supra*.



the conflicts difficulties presently felt in the area, since a uniform act, except for inconsistent interpretations, is designed to standardize the law. However, the Act is at present only in the tentative draft stage, and until its adoption by all fifty states, conflicts are inevitable.

Such conflicts may be illustrated thus: suppose a resident of state A has executed a gift of his body, valid under the donation statute in effect in state A, and then dies in state B, which either has no such statute and must rely on the common law, or has a donation statute in effect which differs significantly in its terms from that of state A. In either situation the question arises as to which state law will apply to determine (1) under the original hypothetical, whether the gift will be given effect at all; or (2) under the variation, whether the terms of the instrument will be given effect. Under differing state conflict of laws rules, the same result would not be reached in all courts,<sup>100</sup> since the intrinsic difficulty is compounded by differing characterizations of the cause of action.

Traditionally, the law of the decedent's domicile has controlled in cases involving the disposition of the decedent's property,<sup>101</sup> but under the common law there is no property in a dead body.<sup>102</sup> On the other hand, conflicts rules often declare that a tort action is governed by the law of the place of the tort.<sup>103</sup> Thus if the survivors brought a tort action against a donee making use of the gift, the law of state B would probably control. There is no case law in point, although it would seem more reasonable to rely upon the decedent's estate analogy. This contention would be strengthened by the existence of legislation in many states validating wills made in conformity with the laws of the place of execution.<sup>104</sup> There remains sufficient uncertainty to require uniform legislation.

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100. Seven criteria have been suggested which a court should consider in determining the choice of law. These are (1) the court should apply local law, unless there is a compelling reason for not doing so; (2) the court should effectuate its own law; (3) there should be certainty, predictability and uniformity of result; (4) the justified expectation of the parties should be protected; (5) the court should apply the law of the state which has the dominant interest in the outcome; (6) ease of determination; and (7) the court should consider the fundamental policy of the law being dealt with. Cheatham & Reese, *Choice of Applicable Law*, 52 COLUM. L. REV. 959 (1952). Thus, for example, if the court of state B were to view the first factor with regard to the original hypothetical, then a good reason for not applying local law is that the gift was made in state A. If, however, the court in state A were viewing the same factor, a good reason for not applying local law would be that the public policy of state B does not favor such donations. Due to the varying approaches used by the courts and varying weights given each factor mentioned, dissimilar results would likely occur.

101. See, e.g., RESTATEMENT OF CONFLICT OF LAWS § 468 (1934).

102. See note 27 *supra* and accompanying text.

103. See, e.g., RESTATEMENT OF CONFLICT OF LAWS § 379 (1934).

104. E. CHEATHAM, E. GRISWOLD, W. REESE & M. ROSENBERG, *CASES AND MATERIALS ON CONFLICT OF LAWS* 704 n.2 (1964).

Altering the preceding example, suppose that the donor is a resident of state B, but dies in state A. The survivors, probably also residing in state B, may wish to sue under the common law of that state. In this case, the results would presumably be less favorable to the gift, and in any case would place an unreasonable burden on the defendant surgeon in state A. In either hypothetical case, uncertainty may be resolved only by litigation, which may destroy the efficacy of the gift where time is of the essence. Thus, model legislation such as the Uniform Anatomical Gift Act is required, not only to further the policy of making such gifts, but to protect the medical profession in carrying out this policy.

In a highly mobile society, a geographical problem related to the conflicts issue involves the donor who travels, or moves to another place. Existing statutes do not cover the problem of proof of donative intent in such a case, nor is provision made for utilization of a gift outside the reasonable reach of a named donee. As noted, the proposed Uniform Act solves this problem by authorizing a donor to carry on his person a card evidencing proof of such intent.<sup>105</sup> Where a willing donor, having made a gift evidenced by a card to a specific donee, dies in a place remote from that donee, the Act provides for utilization of the gift to be made by the attending physician in his discretion as agent for the donee.<sup>106</sup>

#### B. *Consent*

In addition to the consent of the donor presupposed by the Uniform Anatomical Gift Act and current state statutes, the problem arises in other contexts. The state statutes and the Uniform Act deal with gifts of all or parts of dead bodies. However, there are situations such as kidney transplant operations in which very often the transplanted organ comes from a living donor. The Uniform Act does not deal with such a situation, and unless it is appropriately amended, the common law will prevail. In addition, the transplant recipient must give consent for an operation. In both cases, consent is required to relieve the surgeon from liability.<sup>107</sup>

Legally sufficient consent requires more than a mere written authorization; it must be permission intelligently given, based upon the patient's understanding of the nature and extent of the operation

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105. See note 93 *supra* and accompanying text.

106. See note 94 *supra*.

107. *Moos v. United States*, 118 F. Supp. 275 (D. Minn. 1954); C. STETLER & A. MORITZ, *DOCTOR AND PATIENT AND THE LAW* 133-38 (1962); Comment, 4 U.C.L.A.L. REV. 627 (1957).

to be performed.<sup>108</sup> Consent is a limitation upon the surgeon as well as an authorization. Under common law principles, the surgeon who exceeds the consent given is liable in trespass. In order for consent to be effective, the surgeon must disclose the procedures to be employed, the probable consequences of the operation, and the possible alternatives, with their procedures and consequences.<sup>109</sup> In some circumstances, however, the duty to disclose will be lessened, as where the psychological frame of mind is such that too detailed a description would be detrimental to the patient's health.<sup>110</sup> The surgeon's duty to disclose consequences and alternatives to the patient is dramatically accented in such situations as a heart transplant. Removal of the recipient's heart insures his death, and therefore the degree of certainty as to the understanding of the patient in giving his consent requires a stricter standard of proof. To date there is little doubt but that heart transplant recipients have not only given consent, but have been otherwise terminal cases. But public inquiry and concern is directed at the less dedicated practitioner, whose desire for fame might persuade him to prescribe newsmaking therapy when an alternative involving less risk to the patient was reasonably feasible.

Thus, it is submitted that a higher standard of understanding in giving consent should be required when surgery is required for the transplant recipient or the living donor. Especially is this the case with the living donor, for the surgeon is normally bound not to operate on a patient unless the operation can be beneficial. However, removal of a living donor's kidney clearly gives him no benefit. The yet experimental nature of much transplantation therapy, and the high risks involved demand a higher standard of medical conduct. The cadaver donor, on the other hand, is sufficiently protected under the existing statutes, or the proposed Uniform Act, for removal of organs will be of little significance to the deceased.

The physician's concern for his patient's psychological frame of mind should not mitigate his duty to disclose the consequences where the transplantation is of a more experimental nature. Blood transfusions, cornea transplants, or skin grafts would thus be subject to one level of disclosure, while heart transplants would require a higher standard. The surgeon should not be allowed to use his patient as the subject of experimentation without informing the patient of his purpose and obtaining his consent. Thus there would

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108. *Salgo v. Stanford Univ. Bd. of Trustees*, 154 Cal. App. 2d 560, 317 P.2d 170 (1957); *Natanson v. Kline*, 186 Kan. 393, 350 P.2d 1093 (1960).

109. *Natanson v. Kline*, 186 Kan. 393, 409-10, 350 P.2d 1093, 1106 (1960).

110. *Salgo v. Stanford Univ. Bd. of Trustees*, 154 Cal. App. 2d 560, 578, 317 P.2d 170, 181 (1957).

be two levels of consent—the common law guide in all cases involving donations, except those by a living donor and those by the transplant recipient where the risk is great. A more stringent statutory standard would apply in the excepted cases.

## V. MEDICAL AND ETHICAL PROBLEMS

### A. *The Moment of Death*

Where a donor has made an ante mortem gift of his body or organs to be effective upon his death, it is of critical significance to determine the exact moment of death. In the transplant situation, surgical teams must be ready in advance, and critical organs such as the kidney or heart must be removed within minutes to be usable.

Traditionally, legal death has been defined as the stoppage of blood flow and the cessation of vital functions.<sup>111</sup> There is widespread opinion, however, that this definition may be medically outdated. Many authorities have suggested that a more realistic definition could be cast in terms of brain damage.<sup>112</sup> The appearance of life may be maintained mechanically, even though the brain, being irreversibly damaged, is incapable of supporting life; and “[a]fter all, it is the brain that makes an individual human.”<sup>113</sup> Thus, these authorities assert, by measuring the brain’s activity it can be determined whether the *possibility* of life remains, since cerebral death is the end of all life.

The encephalograph (EEG) can measure the brain’s bioelectric activity to determine whether death has occurred. Authorities generally list five criteria for determination of brain death by EEG: (1) no spontaneous respiration for a minimum of 60 minutes; (2) no reflex response. . . . No change in heart rate; (3) EEG: flat lines with no rhythms in any leads for at least 60 minutes of continuous recording; no EEG response to auditory or somatic stimuli or electrical stimulation; (4) normal laboratory data including electrolyte pattern; and (5) share responsibility for pronouncement of death with other colleagues.<sup>114</sup>

In a case involving a possible medical conflict of interest, the EEG would remove the difficulty of deciding when and whether

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111. *Smith v. Smith*, 229 Ark. 579, 586, 317 S.W.2d 275, 279 (1958).

112. “. . . [C]erebral anoxia ends in death. . . . The completely anoxic brain . . . generates no valid encephalographic impulses. When such a condition has been clearly established, it has also become apparent that the encephalograph can determine when the loss of brain function is irreparable and implies an irreversible absence of life . . . .” Hamlin, *Life or Death by EEG*, 190 J.A.M.A. 112 (1964).

113. *The Ethics of Transplants*, *The National Observer*, Jan. 22, 1968, at 22, col. 4, quoting Dr. Joseph E. Murray, surgeon at Peter Bent Brigham Hospital, Boston, Massachusetts.

114. Hamlin, *supra* note 112, at 114.

to give up use of such mechanical means of maintaining life as the kidney machine. On the other hand, use of the EEG would allow death to be declared while allowing the organs to be maintained "alive" mechanically, so that the organs may be removed immediately on cessation of bodily functions.

That this use of the EEG will facilitate donation of organs for transplantation, is illustrated in *In Re Potter*, an unreported English case.<sup>115</sup> In that case the deceased was struck on the head during a fight, and taken to a hospital, where he was connected to an artificial respirator. A physician then gained consent from Potter's wife to remove a kidney after a neurosurgeon had stated that the brain was irreversibly damaged and that there was no possibility of life. The kidney was removed, Potter was disconnected from the machine, and his body ceased functioning. When was the moment of death? If it was at the time of disconnection, then the kidney removal was illegal, since the operation did not benefit the patient, the doctor failed to obtain the patient's consent (he was still alive), and the wife's consent was ineffective (her husband was still alive). However, if the moment of death occurred at the time of the determination of irreversible brain damage, then the wife's consent was effective, since she had legal control over her husband's body; and the kidney removal was legal. Donation can thus be facilitated by the use of the EEG to determine death, since the survivors of an irreversibly comatose patient may be willing to allow organ removal in order to save another's life.

The Uniform Anatomical Gift Act makes no attempt to define the moment of death, and expresses no preference for a criterion for this determination. In an area which approaches the frontiers of scientific knowledge, it is surely wise for the legislature to refrain from action. On the other hand, some regulation of possible abuses is required. This is accomplished by section 7(a) of the proposed Uniform Act, which provides for a division of responsibility, requiring the time of death to be determined by the donor's physician in attendance, who shall not be a member of the surgical team which transplants any organ from the donor to another person. Presumably the attending physician may use any method of determination he judges appropriate, and yet work in the best interests of his patient, rather than in the interest of a successful transplantation.

### B. *Ethical Problems*

1. *Experimentation.*—While the recent heart transplants have received attention from the news media, they have also worked to

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115. The Times (London), July 26, 1963, at 9, col. 4.

raise the hopes of many critically ill patients who might be saved by organ transplants, and have met enthusiastic public support and sympathy. But the reaction has not all been favorable. Many theologians, while approving transplantation on moral or doctrinal grounds, have expressed concern with the medical profession's power to play God.<sup>116</sup> The medical profession, too, has reacted strongly in a few instances, arguing that so little is known as yet about the scientific aspects of transplantation and the rejection phenomenon that it is too soon to experiment on human subjects.

While it seems apparent that transplant recipients to date have been otherwise terminal patients, the issues are none the less pressing as regards the possibility of a surgeon's prescribing transplantation when another, less dangerous therapy is available. Some medical authority has called human heart transplantation "[u]nethical. Medically unsound. Criminal."<sup>117</sup> More responsible criticism adverts to the "tremendous interest [that] has been built up in something . . . that hasn't been proven."<sup>118</sup>

While most medical authorities would agree that it is unethical to experiment upon patients, there must sometime come the dividing line between experimentation and utilization of a new technique. It is submitted that in many respects heart transplantation is no more remarkable than kidney or cornea transplantation, but has received wider attention because of the traditional emotions surrounding the layman's conception of the heart.<sup>119</sup> Seen thus objectively, heart transplantation, in the early stages of development, is no more deserving of adverse criticism than is blood transfusion, or the use of a newly discovered drug.

The Uniform Act makes no provision for determining where experimentation ends and utilization of a new technique begins. Like the moment of death, this is an area on the fringes of medical knowledge, so far apparently responsibly used, and perhaps one best left by the legislatures to the medical profession. On the other hand, the analogy to drugs might suggest administrative regulation under the auspices of an agency similar to the FDA. This has not been suggested in the past, however, for techniques purely surgical in nature, and it is submitted that such governmental control is inappropriate here, controls being best left to medical ethics. Nonetheless,

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116. *The Ethics of Transplants*, *supra* note 113, at col. 6.

117. *The Ethics of Transplants*, *supra* note 113, at col. 1, quoting Dr. Werner Forssman, chief surgeon of the Dusseldorf Evangelical Hospital, Dusseldorf, West Germany.

118. *The Ethics of Transplants*, *supra* note 113, at col. 1, quoting Dr. Jay Ankeney, surgeon at Western Reserve School of Medicine, Cleveland, Ohio.

119. "Whoever Tampers With the Heart Touches More Than Mere Muscle." Subhead, *The Ethics of Transplants*, *supra* note 113.

in a borderline area there is room for legitimate concern over hopes raised by an apparently successful operation, only to be dashed by the patient's death two weeks later. Yet much is gained from such a case—knowledge by the medical profession, and two weeks of life otherwise denied to the patient.

2. *Allocation of Transplant Resources.*—The question most often raised in regard to the ethical problems of transplants concerns the determination of who among many needy recipients will be favored in a situation in which demand for organs, such as hearts, far exceeds supply. Again, emotional conceptions of the heart have no doubt had a strong influence in raising the issue, for the problem is not new, and has accompanied not only the development of other transplant techniques, but also the development of such mechanical devices as the respirator and the artificial kidney. But the question is troubling nonetheless, for the possibility of discrimination against the poor, the old, or the unproductive in favor of the rich, the young, or the contributor to society is not difficult to imagine.<sup>120</sup> Nor has any satisfactory remedy been suggested, such determinations so far having been left to medical judgment. But as transplantation advances in frequency and success, and as surgical teams qualified to perform such operations proliferate, the question will become more pressing. To the charge that the medical profession plays God, it is little consolation that diplomats, statesmen, and military men play God, too.<sup>121</sup>

The Uniform Act makes no provision for deciding such a case, and the critical nature of the time element in any transplant situation precludes a satisfactory result attained through litigation, even were a standard available, or a judge more competent than a physician to decide.

There is one possible legislative remedy, at best only partly satisfactory, which would entail the establishment of an administrative tribunal, attached to the state, or to each hospital, under state or hospital authority, which would be on call to make swift determination on that basis of whatever medical and other evidence was available. It is doubtful whether an adversary system would be appropriate, or even advocacy by the recipients' personal physicians. Whether such an administrative tribunal should deliberate in secrecy, or whether the prospective recipients' cases should be presented anonymously, are questions that must be answered if a legislative framework is to be capable of effective execution. Although an impartial determination of recipients should be made, the charge of playing God is not avoided, but is merely shifted to another. Cur-

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120. See note 6 *supra* and accompanying text.

121. *The Ethics of Transplants*, *supra* note 113, at col. 6.

rently, such decisions seem to be made by the medical profession, under standards not readily apparent, in the allocation of artificial kidney machines and other such items in scarce supply. Surely the medical profession would like as little outside intrusion as possible,<sup>122</sup> but as the entire supply and demand problem becomes more acute some control is called for. Thus it would seem that one possible solution would be an administrative tribunal composed of physicians, with carefully thought out standards of admissibility of evidence on behalf of prospective transplant recipients. So long as demand outpaces supply, decisions of this type will have to be made, and charges of playing God will have to be faced. An arbitrary legislative standard to answer such questions would be difficult to imagine, since the legislature would no doubt rather leave to administrative discretion such decisions, rather than face their electorates with a law requiring decisions to be made solely on the basis of age, number of dependents, or the like.

#### VI. CONCLUSION

Medical research is currently in progress which may some day make moot such problems, through perfection of workable artificial organs or custom grown organs, raised and tailored to the requirements of a previously determined recipient in animal hosts. Until these research goals are realized, however, some legislative reform is obviously required. Adoption of the Uniform Anatomical Gift Act by the state legislatures will obviate most of the mechanical problems, but serious thought should be begun toward solution of the broader ethical and moral problems outlined above if the ends of medical progress are to be accomplished efficiently.

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122. *The Ethics of Transplants*, *supra* note 113, at col. 6.