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### Intensive Care Units (ICUs), and Ordinary Means: Turning Virtue Into Vice

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There is a social process by which what have been virtues in one social context can become vices in another.

Alasdair MacIntyre<sup>1</sup>

#### I. The Temptation of Technology

Advances in technology challenge traditional values because they invite action. This is especially the case with contemporary medical technology, where the allure of its promises makes difficult limiting its applications. A paradigm example is provided by intensive care units (ICUs) in cases where further treatment can often postpone death only marginally. Given the prima facie obligation to preserve life, such treatment often appears obligatory, despite the high monetary and psycho-social costs and the meager benefits offered to particular groups of patients.<sup>2</sup> However, increasing health care costs and expanding technological capacities are evidence that limits must be established, if the commitment to preserve human life is not to become an idolatry of technology.<sup>3</sup> The challenge is cultural: prudently to apply the means which modern technology makes available. If limits cannot be set to the obligation to use expensive lifesaving treatment, then the virtue of helping others save their lives will become the vice of an idolatrous pursuit of physical life to the neglect of more important goods.

The failuire to set limits poses two genre of problems. The first is moral. The duty to preserve life in technological societies tends to become allconsuming, so much so that it can overwhelm a proper balance with other duties, including the weightier ones of sustaining the moral well-being of patients and their families. This has often been described as the technological imperative, the perceived moral obligation to use all available technology regardless of costs, even moral costs.<sup>4</sup> The second genre is economic. The technological imperative supports outlays of

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health care resources which involve major costs, but deliver litle in return. The economic dimension has its own moral implications: waste is wrong, the more so if other morally worthwhile medical goals lose the resources needed to achieve them. The difficulty is that many physicians, and much of the health care profession, have become enamored of interventions that are high in cost and low in yield to the detriment of interventions that are low in cost and high in yield. It is much more exciting to talk about intensive care than about well-baby care and anti-smoking campaigns.

#### II. The Tradition's Answer

The Catholic Church faced this set of problems for the first time 400 years ago. Though from our perspective the 16th and 17th centuries may not appear to have been a period of scientific advance and medical possibility, it was experienced as an era of major change and dramatic promise. It was in the 16th century, for example, with the publication of Vesalius's *De humani corporis fabrica*, that anatomy as we know it emerged.<sup>5</sup> Progress was such that Descartes could hope that medicine would allow him to live past the age of 100.<sup>6</sup> However, many of the therapeutic approaches of the time were costly, not only in monetary terms, but in surgery without the benefit of anesthesia, not to mention bleeding, blistering, clystering, purging, and leeching. The question naturally arose as to whether there are limits to the obligation to accept such treatment, even if it offers the possibility of restoring health.

Catholic theologians of the time answered by distinguishing between obligatory and non-obligatory treatment, that is, between treatment involving ordinary means versus extraordinary means. The view was that the duty to preserve life must be limited by those circumstances which would render the virtue of preserving life into the vice of doing so at all costs, thus endangering the moral life of the patient and others. Extraordinary means are those which are disproportionate and, therefore, potentially immoderate. The rationale for the distinction is one of properly ordering the demands of competing obligations: that of preserving life vis-á-vis those of realizing other goods — societal, familial, intellectual, aesthetic, moral, religious, even athletic — that contribute to a full flourishing of life. Accordingly, one may licitly forebear from means to preserve life not only when the means are futile, but also when they are intemperate.

The language here is not of rights, i.e., claims to the means to preserve life. Rather, the focus is upon the virtues, and more precisely, upon those which are required to temper the claims of medicine and to understand where and how what is usually a virtue, saving lives, can become vicious. There are other goods, e.g., the salvation of one's soul, pursuit of which should also shape our habits and character. To overstress preserving life is to neglect the goods which make life valuable, and to forego cultivating the virtues to realize them. The distinction between ordinary and extra-

ordinary means, therefore, supports those virtues which are required to limit the claims of medicine.

This can be seen in the considerations considered in the distinction. The first is whether the treatment is customary. One is obligated to preserve life and health only with means commonly used in the circumstances common nutrition, common medicines, common medical procedures.7 Such is the case because, if the obligation to preserve life and health extended to uncommon means, e.g., unusual nutrition, medicines, procedures, one would overexaggerate the importance of preserving physical life. "[T]he good of this life is not held to be of so great an import," Joannes de Lugo (d. 1546) observes, "that its preservation must be effected by extraordinary diligence: it is one thing not to neglect it and throw it away rashly, to which a man is bound; it is another thing indeed to seek after it and to hold it back by hard-to-obtain *[exquisitis]* means as it is escaping from him, to which he is not held."8 The attempt to save one's life in this world at all costs tends to exclude the pursuit of other goods, e.g., saving one's immortal soul; it would therefore tend to distract from the exercise of the virtues ordained to achieve these goods. One is not obliged to save one's own life, or that of others, if to try to do so will be seriously disorienting morally.

The second consideration is burden. One is not obligated to employ usual means if the burden of their use is too great. The notion of the extraordinary was thus expanded beyond the concept of the unusual to incorporate the concept of an undue inconvenience. Excessive burdens are recognized as either financial, involving excessive costs (sumptus extraordinarius) or expensive means (media pretiosa), or involving major effort or indignity (summus labor, nimis dura), or physical (quodam cruciatus, ingens dolor) or psychological (vehemens horror) suffering.<sup>9</sup> Moreover, they can be either relative to the circumstances of the individual (secundum proportionem status), or absolute. For a poor individual, relatively modest costs might impose an extraordinary burden. But there is such a thing as a cost which constitutes an extraordinary burden in its own terms, or absolutely, and this is not obligatory even if one can affrord it.<sup>10</sup>

The third consideration is likelihood of success. One is only obligated to use life-saving interventions. If they provide a *spes salutis*, a reasonable expectation of life and health.<sup>11</sup> We shall explore this issue shortly by examining a recently devised clinimetric<sup>12</sup>, the APACHE scores, which provide some basis for determining the likelihood or expectation of recovery. However, the moral principle upon which practical applications rest has had traditional acceptance.<sup>13</sup> *Spes salutis* covers not only the probability of success, but also the quality and the length of the life which success conserves. Quality of life and length of life, then, are the final two considerations ingredient in the traditional distinction. There is no obligation to undergo debilitating surgery and/or amputation.<sup>14</sup> Nor is there an obligation to undergo treatment which simply delays the end of a fatal course of events.<sup>15</sup> In summary, the traditional distinction obliges one only to use means to preserve life and health which are usual in the circumstances, and to use them only if they both provide a reasonable expectation of health and do so with burdens not too great. The point is not just that one is excused from using extraordinary means, but that extraordinary means pose moral hazards. As Pius XII put it in his 1957 address on the limits of obligations to provide treatment:

one is normally held to use only ordinary means according to the circumstances of persons, places, times, and culture, that is to say, means that do not involve any extraordinary burden for oneself or another. A more strict obligation would be too heavy for most men and would render the attainment of the higher, more important good too difficult. Life, health, all temporal activities are in fact subordinated to spiritual ends.<sup>16</sup>

The traditional notion that one is only obligated to use ordinary means to preserve life permits one to appreciate that the good of living is not an absolute moral good, but one of a number of intrinsic goods, the pursuit of any one of which must be balanced against the pursuit of others. For Pius XII, it should be noted, this notion served not only to limit the obligation to accept treatment, but also to provide it.<sup>17</sup> If we make the preservation of life an overriding good, we turn the virtue of pursuing life into something vicious.

Gerald Kelly distinguishes betwen two morally correct standards for providing health care: "the strict, or extreme, professional standard", and the "moderate standard."18 In following the former, the physician, although recognizing the right of the patient or his proxy to refuse extraordinary means to conserve his life, yet "insofar as the judgment is left to himself, ... simply keep[s] trying to prolong life right to the end." In contrast, when following the moderate standard, "doctors try to effect a cure as long as there is any reasonable hope of doing so", but they "also think there is a point when such efforts become futile [and]... the sole duty of the doctor is to see that the patient gets good nursing care and that his pain is alleviated." The moderate standard "is less likely to impose excessive burdens on the patient's relatives, who "often endure terrific strain and undergo great expense while life is being prolonged by artificial means."19 However, Kelly's remarks are confined to "paying patients."20 Consequently, Kelly fails to realize that, for a health care policy in which technology offers increasingly expensive options, and one in which the expenditures of third-party payers generate an ever increasing societal burden, the moderate standard is not simply one licit alternative.<sup>21</sup> Rather, it is the only licit one, because of the obligation to avoid unrestricted expenditures which seriously burden third parties.<sup>22</sup>

#### **III. The Contemporary Importance of Traditions' Answer**

An appropriate appreciation of the non-absolute value of human physical life will not be derived from cost-effectiveness studies. Such

studies demonstrate only the cheapest way to achieve what one already wants, viz., to save lives. But they do not address the moral question of when one should preserve life and at what cost. Such studies cannot ask what the good of preserving life is in relation to other goods, such as attaining eternal salvation, or realizing intellectual, aesthetic, or other values. In contrast, the distinction between ordinary and extraordinary provides the needed moral framework: indeed, it permits one to see that the duty to preserve life is not unconditional, that the good of living must not overshadow the good(s) that give life purpose and worth. the framework is also economically appropriate: it forces one to defend the relation between the burden of means (i.e., the economic and psychosocial costs) and the prospects of cure.

The absence of a temperate moral perspective is exemplified by the difficulties experienced in limiting treatment in adult ICUs. An 1984 OTA report on ICUs observed that

it is now recognized that a significant number of deaths in the ICU occur after 'no resuscitation' orders have been written. In two large medical centers, as many as 40 to 70 percent of ICU deaths occurred under these circumstances. In a large community hospital, 19 percent of ICU non-survivors had no hope of recovery and were in the ICU solely for terminal care. In short, a substantial portion of ICU care for nonsurvivors occurs after hope of recovery had been abandoned.<sup>23</sup>

The failure to use ICUs in a prudent fashion has implications for health care as a whole, because ICUs account for a significant part of the health care budget, 15-20% of all hospital expenditures in the U.S.<sup>24</sup>, around 1/2% of the entire G.N.P. of the U.S. If, as the OTA indicates, many patients are in ICUs even though they have no reasonable expectation of recovery, their treatment in ICUs reflects an inability to set appropriate limits to the use of technology to conserve life.

The ability to set limits can be enhanced by judging the likelihood of success (the spes salutis). With increasing accuracy, one can now determine correlations between physiological findings prior to and upon admission to an ICU and the likelihood of the patient's benefitting from treatment, i.e., surviving. The APACHE score (an acronym for Acute Psychology and Chronic Health Evaluation) first published in 1981, and revised as APACHE II in 1985, offers a means of enabling such prognostication.<sup>25</sup> By assigning patients points on the bases of 12 routine psychological measurements (made within 24 hours of admission), of age, and of chronic health problems, statistically predictive correlations can be made between patients' scores and their chances of survival. As a result of this and similar studies.<sup>26</sup> one can now begin to determine in advance the circumstances under which the use of ICUs is likely to be effective. For example, intensive care does not offer a substantial chance of survival for people with high APACHE scores; indeed, for individuals with scores over 40, the chances of survival asymptomatically approach zero. One the other hand, patients with APACHE scores of 10 or less may do as well in a non-ICU setting, at least in a step-down unit.27

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The difficulty in using such scores is that one will be wrong at times, albeit infrequently. But if the right to life were absolute, it would be unacceptable to be wrong even 1% of the time. One would be obligated to admit on a first-come, first-served basis, and not to sacrifice on the altar of excessive burden the possibility of saving a life. However, if considerations of costs and likelihood of survival are of moral weight, the answers will be quite different.<sup>28</sup> If the average treatment cost of those who would survive is \$10,000, then the cost of a life saved will be \$1,000,000 (i.e., on the basis of a 1% chance of survival and an average cost of \$10,000 per case treated).<sup>29</sup> Such a cost may quite correctly appear excessive. Though much work still remains to be done in improving the predictive accuracy of clinimetrics such as APACHE, their successors are likely to provide us with the data which can guide health care policy if we have the proper moral perspective.

The traditional Catholic distinction offers a moral framework for limiting the use of ICUs for patients with high APACHE scores, or with low scores, as well as for asking when the quality of life preserved in the case of patients is unlikely to justify the costs of treatment in intensive care units. The moral understanding that one is obliged only to use ordinary means which constitute a non-excessive burden and offer a reasonable likelihood of a healthy life, unlike a utilitarian calculus, places the preservation of human life in a contextual relation with per se goods such as eternal salvation. It thus allows an appreciation of why the good of merely living is not always morally overriding. The notion that extraordinary means cannot be obligatory, shows why creating practices that make the good of preserving life overriding, transforms the virtue of preserving life into the vice. Though the distinction between ordinary and extraordinary care was first applied to health care 400 years ago, its most morally important use may be in this century, and the next.<sup>30</sup>

#### References

1. "How Virtues Become Vices," in H.T. Engelhardt, Jr., and S.F. Spicker (eds.), *Explanation and Evaluation in the Biomedical Sciences* (Dordrecht: D. Reidel, 1975), p. 105.

2. Such would be the case for the sort of patient who would have recovered without access to an ICU, as well as the sort of patient who would not survive despite access to an ICU. Whether these sorts of patients can be reliably identified, and the relevance of this identification to what is here called the temptation of technology, is treated in part III of this paper. The sort of patient who does give evidence of benefitting from ICU admission is the unstable, moderately ill patient. M.E. Charlson and F.L. Sax, "The Therapeutic Efficacy of Critical Care Units from Two Perspectives," *Journal of Chronic Diseases*, 40 (1987), pp. 31-37.

3. 22.5% of increase of health care costs for 1973-1983 are due to expansion of service according to the September, 1985 data and of the Division of National Cost Estimates, Health Care Financing Administration. G.F. Anderson, "Data Watch: National Medical Care Spending," *Health Affairs*, 4:3 (Fall 1985), p. 102.

4. E.g., by P.E. Kalb, and P.E. Miller, in "Utilization Strategies for Intensive Care Units", *Journal of the American Medical Association*, 261 (April 28, 1989), p. 2389.

5. Andres Vesalius, De humani corporis fabrica librorum Epitome (Basil: J. Operinus, 1543).

6. The Antwerp Extra ordinisse Posttijdinghe of April 10, 1650, reported that "[t]hat in Sweden a fool had died who had claimed to be able to live as long as he wanted" (quotation from G. A. Lindeboom, Descartes and Medicine (Amsterdam: Rodopi, 1978), p. 94). Abbe Picot, who had lived with Descartes in Holland, wrote of him "that he would have sworn that it would have been impossible for Descartes to die at the age of fifty-four, as he did, and that, without foreign and violent cause as that which deranged his 'machine' in Sweden, he would have lived five hundred years" (C. Adam and P. Tannery (eds.), Oeuvres de Descartes (Paris: Leopold Cerf, 1897-1913), vol XI, p. 671. Surveying Descrates' writings about how to maintain his health, Lindeboom infers that Descartes thought "the natural span of life to be more than a century" (op. cit., p. 96; cf. pp. 93-97).

7. Cf. the Discalced Carmelites of Salamanca, the so-called Salmanticenses: "Also, in order to preserve one's life, he is not bound to use all possible remedies;, even extraordinary ones, excessively hard-to-obtain medicines, costly foods, going to a more healthful territory, so as to live longer" [Nec etiam tenetur aliuis ad conservandam vitam uti omnibus possibilibus remediis, etiam extraordinariis nimirum exquisitis medicinis, cibis pretiosis, ire ad terras salubriores ad ampluis vivendum . . . (Cursus Theologia Moralis (Venice, 1734), Tom. III, Tract. XIII, de restitutione, cap. II, punct, 2, sect. 2, n. 26)] This tradition is preserved, e.g., in A. Sabetti and A. T. Barrett, Compendium Theologia Moralis, 33rd ed. (New York: Frederick Pustet Co., 1931), p. 269: "Is one bound to use extraordinary remedies to save life? . . . . No, and the reason is that the affirmative precept is not necessarily to be fulfilled in every manner possible but only by that which is accessible and common." [An teneatur quis uti remediis extraordinariis ad vitam servandam? ... Neg. <atur>, et ratio est, quia praeceptum affirmativum non est necessario adimplendum omni modo possibili, sed eo tantum qui est obvius et communis. ]Note that the analysis does not restrict the principle to saving one's own life; it would apply to any life which one is charged to save.

8.... non tamen est tanti momenti hoc vitae bonum ut extraordinaria diligentia procuranda sit ejus conservatio: alius est eam non negligere et temere projicere, ad quid homo tenetur: aliud vero ist eam quaerere et fugientem ex se retinere mediis exquisitis, ad quid non tenetur, nec ideo censetur moraliter mortem velle aut quaerere... (De Justitia et Jure (Paris: Vives, 1869), Disp. 10, Sect. I, n. 29). Franciscus Vitoria (d. 1546) contrasts common foods with "very delicate" foods, e.g., "hens and chickens", which one is not obligated to use, even if one had the resources, and the physicians said that such foods would prolong his life for 20 years, and he knew for certain that they were correct (V. Baltran de Heredia (ed.), Commentarios a la Secunda Secundae de Santo Tomas, (Salamanca: Biblioteca de teologos espanoles, 1932-1952), in II: II, a. 147, art. 1).

9. Cronin, D. A., *The Moral Law in Regard to the Ordinary and Extraordinary Means of Conserving Life* (Rome: Typis Pontificae Universaitatis Gregorianiae, 1958), pp. 96-97, where he tabulates these as standard phrases among the 50 major writers from Vitoria to the time of his work.

10. For example: "The absolute norm  $\langle sc.:$  in contrast to the relative norm in gauging what is extraordinary in regard to cost> establishes a maximum amount beyond which no one need go in spending money to care for his health. This norm is based on that which *people in general* would find very costly. The average person would experience very grave inconvenience in paying for medical care which costs a great sum of money. It is difficult to fix the amount exactly, but it seems that in normal times \$2,000 or more would certainly constitute such a 'great sum' for the average man. Hence if the treatment required for one's cure of a fatal disease would cost \$2,000 or more, he would not be obliged to employ so costly a remedy.

"Let us suppose that an individual whose health requires costly treatments is exceedingly wealthy. He could, without being caused any inconvenience by the expense, pay for such medical care. Despite his financial status, treatments costing \$2,000 or more would be considered extraordinary means of preserving his life.... In his case the (absolute rather than the relative norm should be applied." E. F. Healey, *Medical Ethics* (Chicago: Loyola University Press, 1956), p. 96.

Another example: "No one, not even the very rich, is obligated to change his residence to another region, or to travel to distant baths, even if he cannot otherwise continue to live." [Nemo, etiam ditissimus, obligatur ad sedem in alia regione ponendam, vel ad balnea longinqua adenuda, etiamsi aliter vitam protrahere nequeat.] E. Genicot, Theologia Moralis Institutiones, Vol. I, 4th ed. (Louvain: Polleus et Ceuterick, 1902), p. 346.

11. Lest this sentence's last phase be construed as an unwarranted construal of *spes* salutis, cf. the Rev. R. McManus, who prepared the theological opinion sought of the Diocese of Providence, R.I., by the plaintiff's family, in a suit to have artificial nutrition and hydration removed from the comatose plaintiff: "[T]he medical treatments which are being provided the patient, even those which are supplying nutrition and hydration artificially, offer no reasonable hope of benefit to her. This lack of reasonable hope or benefit renders <them> . . . futile and thus extraordinary . . . " (Origins, 17:2 (January 21, 1988), p. 547). The case was decided in the plaintiff's favor: Gray v. Romeo and the State of Rhode Island, United States District Court for the District of Rhode Island, Civil Action No. 87-0573B, October 17, 1988.

12. Cf. A. R. Feinstein, "An Additional Basic Science for Clinical Medicine: IV, the Development of Clinimetrics," *Annals of Internal Medicine*, 99 (1983), pp. 843-848.

13. For example, a "young woman has a rare cardiac ailment. There is a chance of curing her with an extremely delicate operation; but it is only a chance. Without the operation, she can hardly live a year. With the operation, she may die on the table or shortly afterwards: but she also has a chance, though considerably less than an even chance, of surviving and of being at least comparatively cured. This operation seems to be a clear example of an *extraordinary* means of preserving life, especially because of the risk and uncertainty that it involves." G. Kelly, *Medico-Moral Problems* (St. Louis: The Catholic Hospital Association, 1958), p. 129.

14. Noldin-Schmidt, considering the question whether there is an obligation to undergo a grave surgical operation or significant amputation, answers that "the more ancient authors commonly deny <sc.: such>, because an operation is an extraordinary means..<in al.> sometimes on account of the inconvenience of the loss of a limb. This certainly holds even today..." [Antiquiores auctores communiter negant, quia operatio... quandoque ob incommodum privationis membri est medium extraordinarium. Hoc certe etiam hodie valet...] H. Noldin and A. Schmitt, Summa Theologia Moralis. Vol. II. De Pracepetis, 25th ed. (Leipzig: Felix Rauch, 1938), p. 308.

15. De Lugo observes that, "if someone condemned to burn, when he is already surrounded by the flames, were to have at hand water with which he could extinguish the fire and prolong his life, while at the same time other wood is being brought forward and burned, he would not be thereby bound to use this means to preserve his life for that brief a time, because the obligation of preserving life by ordinary means is not the obligation of using the means for that brief a prolongation, one which, *<sc.*: because it is too little, *parum>* is reckoned morally as tantamount nothing . . . [. . . *si enim quis ad ignem damnatus, dum jam flamma circumdatus est haberet ad manum aquam, qua posset ignem extinguere et vitam protrahere, quamdiu alia ligna afferuntur et accenduntur; non ideo teneretur eo medio uti, ut vitam illo brevi tempore conservaret: quia obligatio conservandi vitam per media ordinaria, non est obligatio utendi mediis ad illam brevem conservationem quae <viz.: parum> moraliter pro nihilo reputatur] op. cit., n. 30.* 

16. Pius, XII, Pope, "Le Dr. Bruno Haid," November 24, 1957, Acta Apostolicae Sedis, 49 (1957), p. 1030.

17. I refer to his phrase "a grave burden for oneself or another" (my emphasis). Pope Pius XII thus expresses what is only implicit in Sabetti and Barret (see above, n. 7). The "oneself" is the patient; the "other" probably refers to the family as helping to pay for the provision of care. He later remarks that insofar as the family has rights and duties apart from being the patient's proxy, "they are usually bound to the use of ordinary means" (op. cit., p. 1032). These remarks would now extend to the third-party payer.

18. Op. cit. (n. 11), p. 138.

19. Ibid., p. 139.

20. Ibid., p. 135.

21. This defect vitiates his otherwise excellent earlier articles "The Duty of Using Artificial Means of Preserving Life," *Theological Studies*, 11 (1950), pp. 203-230, and "The Duty to Preserve Life," *Theological Studies*, 12 (1951), pp. 550-556.

22. Cf. H. J. Aaron and W. B. Schwarz, *The Painful Prescription: Rationing Hospital Care* (Washington: Brookings Institute, 1984).

23. Berenson, F. A., Intensive Care Units (ICUs): Clinical Outcomes, Costs, and Decisionmaking, Washington, D.C.: Congress of the United States Office of Technology Assessment, 1984, p. 36.

24. Knaus, W. A., et. al., A Comparison of Intensive Care in the U.S.A. and France, Lancet, 2 (18 September 1982), pp. 642-645.

25. Knaus, W. A., Zimmerman, J. E., Wagner, D. P., *et al.*, "APACHE — Acute Physiology and Chronic Health Evaluation: A Physiologically Based Classification System", *Critical Care Medicine*, 9 (1981), pp. 591-597; W. A. Knaus, E. A. Draper, D. P. Wagner, J. E. Zimmerman, "APACHE II: A Severity of Disease Classification System", *Critical Care Medicine* 13 (1985), 818-829.

26. For example, S. Lemeshow, D. Teres, H. Pastides, H. S. Avrunim, J. S. Steinbrub, "A Method for Predicting Survival and Mortality of ICU Patients Using Objectively Derived Weights", *Critical Care Medicine*, 13 (1985), pp. 519-525. See also S. D. Horn, B. Chachich, C. Clopton, "Measuring Severity of Illness: A Reliability Study", *Meical Care*, 21:3 (July 1983) pp. 705-714.

27. Wagner, D. P., Knaus, W. A., Draper, E. A., Zimmerman, J. E., "Identification of Low-Risk Monitor Patients Within a Medical-Surgical Intensive Care Unit," *Medical Care*, 21:4 (April 1983), pp. 425-434.

28. Msgr. O. Griese has recently argued in "Pope Pius XII and 'Medical Treatments", *Linacre Quarterly*, 54:4 (November 1987), pp. 43-49) that nutrition and hydration and drugs count as minimal measures normally and customarily intended for the maintenance of life" (p. 48, quoting with approval a report of the Holy See's Council on Health Affairs), i.e., as ordinary rather than extraordinary means, even when the alimentation is artificial as in the case of the comatose. My point, of course, is not about artificial alimentation. However, to cite Fr. McManus again (*op. cit.* above, n. 11): "This lack of reasonable hope or benefit renders the artificially invasive medical treatments", which in this case were artificial nutrition and hydration, "futile and thus extraordinary, disproportionate and unduly burdensome. Moreover, the continuation of such medical treatments is causing a significant and precarious economic burden to Mrs. Gray's family." One must be careful not to ignore the question of whether the custom referred to by the Holy See's council has become corrupt when it accepts as usual treatment that which would usually constitute a significant burden upon family, health care professionals, health care facilities, and third-party payers.

Cf. Kelly's remark: "I once asked the mother superior of a home for incurable cancer patients whether they used such things as intravenous feeding to prolong life. She replied that they did not. They gave all patients devoted nursing care; they tried to alleviate pain; and they helped the patients to make the best possible spiritual preparation for death. Many very good people with whom I have spoken about this matter think these sisters have the right idea — 'the good Christian attitude toward life and death" (op cit., p. 139). One could argue plausibly, pace Msgr. Griese, that Pope Pius XII's remarks cited above are in this spirit. For a recent study in this spirit, see N. Wray et al., "Withholding Medical Treatment from the Severely Demented Patient," Archives of Internal Medicine, 148 (September 1988), pp. 1980-1984.

29. In 1978, average hospital costs for 498 ICU patients came to \$9,491, compared with \$1,361 for 118 non-ICU patients (J. R. Parno, D. Teres, S. Lemeshow, R. B. Brown, "Hospital Charges and Long-Term Survival Versus Non-ICU Patients," *Critical Care Medicine*, 10 (1982), pp. 569-574).

30. I have benefitted greatly from H. T. Engelhardt, Jr.'s substantive comments and criticisms of several drafts of this paper. I am also indebted to criticism by L. McCulloch and Becky Cox White of the penultimate draft.