

# Medical Futility

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**Abstract:** Physicians are sometimes tempted to label as futile those treatments that offer little hope of cure to patients near the end of life. This label may be applied in an effort to justify the physician's unilaterally discontinuing treatments that the patient wishes to continue. Often the treatments to which physicians are referring are not, strictly speaking, useless, but rather are simply burdensome in terms of the time, effort and expense involved relative to the amount of good the physician sees them as doing for the patient. Strictly speaking, the terms "futile" and "medical futility" should be reserved for those treatment modalities that are truly useless, that do not work for the purpose intended. Assessment of the benefits and burdens of treatment is best left to the one who must bear them, i.e. the patient.

*"I will define what I conceive medicine to be. In general terms, it is to do away with the sufferings of the sick, to lessen the violence of their diseases, and to refuse to treat those who are overmastered by their disease, realizing that in such cases medicine is powerless."*

Hippocrates

## Introduction

Ethical physicians have traditionally tried to avoid providing treatments that offered no benefit to their patients. In Hippocrates' time that involved declining to treat those with fatal illnesses, those "overmastered by their disease." In our own time, that tradition has led many physicians to conclude that treatments that offered no chance of cure to the terminally ill could be declared to be futile and could be discontinued, even if the patient (or a surrogate, speaking on the patient's behalf) desired it to continue. The central issue in the concept of "medical futility" is that of the physician's right, if not his/her obligation, to decide unilaterally to refuse to provide treatment that he/she feels will not benefit the patient.

## Defining Futility

Considering that decisions to terminate apparently futile care are literally matters of life and death, it is disconcerting to realize that there is no generally accepted definition of what constitutes futile care. The American Medical Association's *Code of Ethics*, in a section addressing the subject of medical futility, states, "Physicians are not ethically obligated to deliver care that, in their best professional judgment, will not have a reasonable chance of benefiting their patients. . . . Denial of treatment should be justified by reliance on openly stated ethical principles and acceptable standards of care . . . not on the concept of 'futility' which can not be meaningfully defined."<sup>1</sup> This position was established after two decades of fruitless efforts at refining the meaning of the term.

In the mid-1980s, as both the practical limitations of new medical technologies and their costs were becoming apparent, there was a flurry of interest in the concept of medical futility.<sup>2</sup> It seemed that if agreement could be reached on what constituted futile care, physicians could be spared the

burden of providing it, patients could be spared the burden of undergoing it, and society could be spared the cost of paying for it. Numerous articles were written in attempts to define the concept of medical futility. Seminars were conducted on the subject, and some medical facilities attempted to draft policies that would provide guidance to healthcare providers in cases involving possible futility and would empower them to discontinue futile treatments. All of these efforts met with significant obstacles to their implementation.

One of the most widely discussed attempts to define medical futility was offered by Schneiderman et al, and a brief review of his definition can serve to highlight the difficulties inherent in the undertaking.<sup>3</sup> Schneiderman's definition included two forms of futility, quantitative futility and qualitative futility. Quantitative futility was statistically based and would therefore appear to be objective: If, for instance, an intervention has been ineffective in the past 100 cases, it could be regarded as futile. Qualitative futility is more obviously subjective: If the treatment would "merely preserve permanent unconsciousness" or "fail to end a patient's total dependence on intensive medical care", it could be considered futile. While these ideas resonate with physicians who have struggled with the issue of providing marginally useful care to terminally ill patients, they each have practical and ethical limitations.

With regard to the concept of quantitative futility, there are few, if any, published studies of medical interventions that have failure rates of 100%. Most reasonably considered interventions do work at least occasionally. The question then becomes at what lower level of success can an intervention be said to be futile? The answer to that question is no longer an objective measure of futility but a subjective one. Different physicians, based on their personal experience and values, will define an acceptable lower limit of success differently. McCrary et al., for example, surveyed 760 physicians in three tertiary-care medical centers in Texas, asking them to respond to the question, "Regarding terminally ill patients, I consider a treatment 'futile' if the likelihood of success is \_\_\_ percent or below."<sup>4</sup> Table 1 (p. 24) shows the responses.

Thus, while 19% of the surveyed physicians would consider a treatment futile only if it had a zero percent chance of success, 23% would consider it futile if it had a better than 10% chance, and 5% of respondents would consider it futile even if it had approximately at 50-50 chance of success. Even if there were studies which showed that an intervention had a success rate of zero percent, one would still have to ask how similar the patients in the studies were to the patient under treatment. If they were different in any potentially substantive way, the zero percent chance of success might not apply.<sup>5</sup> Therefore, except in circumstances where an intervention has been shown to be uniformly useless in patients similar in all important respects to the index patient, Schneiderman's definition of quantitative futility is less helpful than might be wished.

The concept of qualitative futility is even more problematic because it is even more subjective. As noted earlier, qualitative

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**Table 1 Texas Physicians' Survey Results<sup>4</sup>**

Success Rate	Physicians Considering Intervention Futile (%)
0	19
1-5	36
6-10	22
11-25	15
26-40	3

futility encompasses treatment that “*merely* preserves permanent unconsciousness.” (Emphasis added.) The word “*merely*” carries a value judgment. Many physicians value the life of the mind highly and would find a life of “*mere*” vegetative existence undesirable. Many patients, however, hold continued biologic life to be of value and would wish to have it preserved, even in the absence of signs of consciousness. It is not self-evident that the physician’s values should decide how such cases should be managed when it is the patient’s life that is at stake.

As Truog has pointed out, it is not sufficient to ask whether an intervention is futile. The question must always be, “Futile in relation to what?”<sup>5</sup> If, for example, the effectiveness of CPR performed on patients in the ICU setting is judged in relation to survival to discharge (a typical physician goal), physicians may find it to be generally ineffective. If, however, it is judged in relation to prolonged survival in the ICU (a common patient goal), it is somewhat more effective. Ventilatory support of the brain dead patient is manifestly futile in relation to prolonging the patient’s life; he/she is already dead. Such ventilatory support may be quite useful, however, in relation to the goal of maintaining the viability of organs for transplantation.

### **The Four Principles**

The struggles which the medical profession experiences over the issue of medical futility can best be understood as a result of conflicts between competing ethical principles. Medical ethics in the latter part of the twentieth century has generally been defined in terms of the Four Principles identified by Beauchamp and Childress.<sup>6</sup> These principles are expressions of values which have stood the test of time and location, being generally respected (though sometimes in the breach) by most cultures from ancient times to the present. As relates to the issue of medical futility, these principles can be described briefly as follows:

**Autonomy:** The term Autonomy refers to the right of the competent individual to determine what is or is not done to himself or herself, the right to choose one’s own course.

Although the value of the individual has always been a high priority in Western society, medicine has only recently come to recognize the patient’s right to choose or refuse treatments available. In past times, physicians have generally acted in a “paternalistic” manner, telling patients what to do rather than offering choices and enlisting their participation in the treatment plan. This movement toward respecting patient autonomy has now resulted in patients sometimes choosing paths of care with which the physician may not agree. It is easy for the physician to respect the autonomy of the patient when the patient agrees with the physician; it is more difficult when he/she disagrees.

**Beneficence:** The principle of Beneficence holds that each person should do good for others when possible. Many physicians chose medicine as a career because they wanted to help others, and most are fortunate in that they are able to put this principle into practice on a daily basis in their work. When, however, the patient’s condition seems hopeless, the physician may come to feel that the opportunity to do good has passed. Continued care then seems futile, and the physician may wish either to withdraw from the case or, if he/she is not in a position to withdraw, may wish to withdraw the care that is in progress. If the patient or the patient’s family wishes for care to continue, though, it may be because they have a different view of what is good for the patient. While the physician may define good as a return to that level of functioning that the physician would find minimally acceptable for himself, the patient or his or her family may define good as “*mere*” continued vegetative existence. In maintaining basic physiologic functions, then, the physician may be doing more good (from the patient’s point of view) than he/she realizes.

**Non-Maleficence:** This principle holds that we should not harm others. It is enshrined in the ancient axiom, “First, do no harm.” Some have argued that Non-Maleficence is a redundant principle, being only the flip side of Beneficence. This is certainly not true in medicine, however, where even well-intentioned therapies have a tremendous capacity to cause harm to the patient. Physicians concerned about providing futile therapy are concerned, in part, because they worry that they may be harming the patient by inflicting pain and suffering. If the patient cannot be restored to a level of function that the physician believes is desirable, the physician may fear that he is simply prolonging the dying process, which in itself could be viewed as causing harm. There are, however, palliative care strategies which can be implemented to prevent pain and suffering, and “prolonging the dying process” cannot be seen as a harm if from the patient’s point of view it constitutes continued living.

**Justice:** The principle of Justice is complex, containing many shades of meaning. At its simplest it requires that everyone should be treated fairly, i.e., that they should not be discriminated against for reasons such as race, religion or financial status that are not morally relevant. Ethical physicians would never think of discontinuing supportive care because of someone’s race or religion, but they may easily slip into considering it when the patient is clearly unable to pay any significant portion of the rapidly and continually mounting costs of care. The ethical justification for this consideration, such as it is, is another aspect of the principle of Justice known as Distributive Justice. This face of Justice holds that benefits

and burdens should be spread fairly across the members of any society. It can be argued that the dying patient receiving marginally useful care is consuming more than his fair share of limited resources. The tendency to try to control society's medical costs by limiting care to individual patients has been referred to as "bedside rationing." It must be remembered, however, that the physician's first responsibility is to the patient, and society has neither asked nor empowered physicians to control its medical costs by limiting care to individuals.

An ethical dilemma is defined as a situation in which one cannot fulfill the demands of one ethical principle without violating the demands of another. As can be seen from the preceding discussion, the circumstances surrounding cases of possible medical futility are rife with opportunities for dilemmas to arise. The physician who wants to stop a treatment which the patient wishes, but which the physician views as futile, is caught in an Autonomy vs. Non-Maleficence dilemma if his/her motivation is to avoid doing harm to the patient. The physician is in an Autonomy vs. Justice dilemma if his/her motivation is to be a responsible steward of limited health care resources. Alternatively, the physician wishing to do good for the patient may be concerned that he/she is causing harm (Beneficence vs. Non-Maleficence). Recognizing the nature of the dilemma does not resolve it, but defining which values are in conflict can help those involved to reason their way through to the best of several not-altogether-satisfactory solutions.

Medical futility cases can also be seen as conflicts between the Autonomy of the physician (i.e., the right of the physician to refuse to provide care which conflicts with his/her conscience) and the Autonomy of the patient (i.e., the right to receive desired treatments). When the dilemma is viewed in this way, it would seem that, given the physician's fiduciary responsibility to put the patient's interests first, it is necessary to give primacy to the patient's Autonomy. As Vetch and Spicer have said, "A society that forces people to die against their will produces more offense than one that forces healthcare providers to provide services that violate their consciences. If society must offend, the lesser offense is preferred."<sup>7</sup>

### Legislating Futility: The Texas Experiment

Among the reasons why efforts to implement Medical Futility policies have had little success is the fact that such hospital policies offer little or no protection to the physician who attempts to apply them. These policies do not have the force of law, so the physician who unilaterally discontinues life-sustaining therapies over the objections of concerned family members exposes himself to potential civil and criminal penalties.

The State of Texas has attempted to address this issue by the passage of legislation establishing a due-process procedure by which the medical treatment team can seek to establish the medical futility of treatment in certain cases. The doctors and the medical facility may then be granted immunity from civil and criminal liability when such treatments are withdrawn.<sup>8</sup>

In 1999 the Texas legislature combined three pre-existing laws related to end-of-life care into a new, unified law, the Texas Advance Directives Act. *Table 2* (p. 26) lists the rules established by this law for resolving issues of medical futility.

Two years after the passage of this law, Fine and Mayo reviewed its impact on the ethics consultation service at Baylor University Medical Center.<sup>9</sup> Compared with the 12-month period before the law went into effect, they found that consultations directly addressing the issue of medical futility increased by 67%. Six cases were pursued through to the end of the dispute-resolution process. Of these cases, three families agreed to the withdrawal of life-sustaining treatment within a few days of receiving the committee's written report. Two patients died during the 10-day waiting period without an alternative care provider being identified, and one patient died while awaiting transfer. No family chose to go to court to seek to overturn the finding of the ethics committee or to seek an extension of the time allowed to identify an alternative provider. It was the impression of the authors that families were relieved to have the burden of making the decision to terminate care lifted from them.

Such outcomes have not, however, always been the case.<sup>8</sup> Physicians at the Children's Hospital of Austin invoked the Texas Advance Directives Act in an attempt to withdraw ventilatory support from Emilio Gonzales, an 18-month-old child suffering from Leigh's Disease, a progressive and fatal neurometabolic disorder. With the assistance of attorneys from several advocacy groups, the child's mother was able to obtain an extension of the deadline for withdrawal of care, but the child died before a final ruling on the case was issued by the court. In a discussion of the circumstances of the case, Truog points out that hospital ethics committees tend, to be made up of those who share similar backgrounds and values. They may not, therefore, be the most balanced forum in which the views of minorities and those with different values could be heard. In Truog's opinion, the Texas Advance Directives Act offers "a due-process approach that is more illusory than real and that risks becoming a rubber-stamp mechanism for systematically overriding families' requests . . ."<sup>8</sup> It remains to be seen how well the Texas model will perform over time and whether other states will adopt similar measures.

### Where Do We Stand Now?

Arguably the simplest and most appropriate definition of medical futility is that offered by Younger in the early days of the futility discussion. Younger wrote of "physiologically futile treatment," by which he meant any treatment that would not produce the effect sought by the person requesting it.<sup>10</sup> Performing CPR on the patient found cold and blue is futile because it will not restore cardio-respiratory function. Performing CPR for the xth time on a patient in the ICU is not futile if it will restore cardio-respiratory function, even if only for a short time. The benefit which the latter patient derives from the procedure may be marginal relative to its burden of risks and suffering, but that is another discussion. Treating advanced metastatic cancer with laetrile is futile, because laetrile does not have any physiologic effect on cancer. Treating advanced metastatic cancer with new drugs in experimental protocols is not futile if there is reason to believe they might work. The chance that the patient will experience sufficient benefit from the treatment to justify the burden of side effects may be slight, but again, that is another discussion. Physicians should not attempt to label treatments as futile in an effort to avoid those difficult "other discussions."

Physicians should confine the use of the terms "futile" and "medical futility" to those treatments which simply do not

**Table 2 Texas Advance Directives Act<sup>9</sup>**

1	The physician's opinion that the treatment in question is futile must be reviewed by an Ethics Committee or similar medical committee appointed by the hospital. The attending physician cannot participate as a member of the committee.
2	The family must be given written information on the hospital's ethics process, must be given 48 hours notice of the planned meeting and must be invited to participate.
3	Upon conclusion of its deliberations, the Committee must provide a written report of its findings to the family, and this report must be included in the medical record.
4	If the Committee supports the finding that the disputed treatment is futile and fails to achieve agreement among the parties, the hospital must work with the family in attempting to transfer the patient's care to another physician or facility willing to provide the care requested.
5	If after 10 days no willing provider can be found, the hospital and the physician may unilaterally withhold or withdraw any treatments that have been determined to be futile.
6	The patient or family may request that a court issue an order extending this time limit, but such an extension should only be granted if the judge determines that there is a reasonable chance that a willing provider is likely to be found.
7	If the patient or family does not seek an extension, or the court declines to grant one, then the physician and the hospital may unilaterally withhold or withdraw treatment with immunity from civil or criminal prosecution.

work, which have no physiologic effect of the type desired. Treatments which are only marginally useful (i.e., most of those erroneously labeled "futile") should be discussed frankly with the patient or his/her surrogate in terms of the benefits and burdens entailed. The language used in these discussions is important. Not only is it necessary to avoid the use of medical jargon, the discussion should focus on issues of importance to the patient. In a study of the end-of-life concerns of 30 elderly people, Rodriguez and Young found that they did not generally use the terms "utility" and "futility."<sup>11</sup> They were concerned instead with (1) the expected quality of life; (2) the emotional and financial costs of treatment; (3) the likelihood of success; and (4) the expected effect on longevity. By insuring that the patient is well-informed on these issues, the physician can facilitate good decision-making on the patient's behalf. As stated by Helft in his discussion of the arc of the futility movement, "Talking to patients and their families should remain the focus of our efforts."<sup>2</sup>

It is, however, inevitable that on some occasions, despite the most conscientious efforts to ensure that the patient or surrogate understands the medical facts, the patient or surrogate will decide to pursue treatment options that the physician feels are unlikely to offer any benefit. This happens because facts

are not the only factors influencing decisions for treatment; values also play an important role, and the patient's values may lead him/her to a different conclusion than that which the physician believes he/she would reach in the same situation. In such a case, if the physician finds that providing the desired treatment violates the dictates of his/her conscience, the physician has the option of withdrawing from the case. As stated in the AMA Code of Ethics section on Free Choice, "Although the concept of free choice assures that an individual can generally choose a physician, likewise, a physician may decline to accept that individual as a patient."<sup>12</sup> If, however, the physician already has an established doctor-patient relationship, the opportunity to withdraw would be dependent upon the availability of another qualified healthcare professional willing to take over the patient's management. If no other provider is willing to accept that responsibility, the physician has a duty, for all the reasons previously cited, to provide the treatment regardless of his/her moral qualms.

### **What Might the Future Hold?**

The financial cost of honoring patients' requests for aggressive medical care at the end of life is high and seems likely to rise as newer, more expensive medical therapies are developed. At present, society appears to be willing to bear those costs,

but as the population ages and the demand for care increases, the costs may become unacceptable. Society's resources are not unlimited. It is likely that there will come a time, sooner perhaps rather than later, when society is confronted with the difficult choice of deciding whether to continue to fund such care or to fund other important priorities such as education, housing, law enforcement and national security. At such a time, it may be decided that the greater good of the many may necessitate some limitations on the choices of the few. To phrase the issue in terms of the four principles of ethics previously discussed, the principle of Distributive Justice (the fair distribution of benefits and burdens) might take precedence over the principle of honoring the individual's Autonomy (the right to make one's own choices).

"Rationing of health care" has been defined as referring to policies and procedures that result in individuals' being denied services that would be of significant medical benefit to them for reasons other than absolute scarcity or inability to pay.<sup>13</sup> Hackler has identified five conditions which, when met, would provide an ethical justification for health care rationing: (1) There should be important needs competing for limited resources; (2) There should be no other way to produce the same savings; (3) Savings realized from services denied should be applied to other equally important needs; (4) Policies limiting access to treatment should be applied equitably to all; and (5) The limits should be self-imposed through a democratic process. Should there come a time when it is determined that access to aggressive care at the end of life should be limited, it will be important that these conditions be observed. In particular, it will be important that the limitations be "self-imposed through democratic processes," i.e., developed through an open societal discussion guided by ethical considerations. If decisions are to be made unilaterally to deny marginally effective care to patients near the end of life, they must be the result of a transparent process, not decisions made privately behind closed doors ("bedside rationing").

## Summary

What then can be said about the ancient Hippocratic injunction against treating those "overmastered by their disease"? It can be said that times have changed – for the better. Caring physicians do, in fact, routinely treat those who are dying of conditions for which there is no hope of cure. Palliative care – treatment focused on pain and symptom management for those near the end of life – is one of the great achievements of modern medicine. Respecting the autonomy of the dying patient by honoring his/her choices for treatment, even when that treatment seems to offer only marginal benefits, can be seen as a form of comfort care for the soul. It is the last acknowledgement in life of the value of the individual.

The term "futile", if it is used at all, should be applied only to those treatments that are truly useless and have no physiologic effect on the patient. Treatments that have physiologic effects, but that may not have any long-term beneficial effect on the patient, should not be termed "futile" as a rationalization to justify discontinuing them. Those treatments should be discussed with the patient or surrogate in terms of the benefits they provide and the burdens they entail. Care providers should support the patient or surrogate's right to choose, even when the care provider disagrees with the choice.

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