FEATURE ARTICLE

Health Care Allocations: Is Rescue Preferable to Prevention?

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Abstract — **Far more of our health care resources are devoted to acute-care rescue medical technologies, technologies that are used to rescue individuals after they are in the grips of serious illness, than are devoted to preventive medical technologies, technologies that are used to prevent illness. Is this allocational priority reasonable, if we have good reason to believe that prevention is more efficacious than rescue? This article examines some considerations relevant to this issue and concludes that the most compelling consideration in favor of rescue over prevention may be its compatibility with our respect for individual liberty.**

When the average person thinks of medical technology, he or she probably thinks of "big ticket" technologies, such as the artificial heart or the array of sophisticated supportive and resuscitative devices commonly utilized in organ transplant surgery and modern intensive care units. These are the forms of medical technology most widely discussed, debated, and evaluated in the popular news media and on which it seems, to many, that most of our medical hopes are and should be pinned. These are the technologies that are most often touted as having brought medical care into an era when apparent medical miracles are virtually daily occurrences and that bring their creators the highest accolades and greatest financial rewards. And, last but not least, these are the technologies that most often receive the lion's share of the blame for the ever-escalating costs of medical care. In short, these are the technologies of acute-care rescue medicine (also known as crisis medicine).

Rescue medicine can be broadly distinguished from preventive medicine in terms of the highly plausible assumption that the overriding goal that society seeks to attain by devoting some of its resources to health care is minimization (or at least significant reduction) of levels of morbidity and mortality within its population. Rescue medicine includes all those types of medical care that pursue this goal by attempting to restore health and normal functioning to individuals (or at least to prevent further decline) after illness or disability has already occurred, while preventive medicine includes all those types of medical care that pursue this goal by attempting to block the occurrence of illness or disability in the first place. Within rescue medicine, acute-care or crisis medicine—those forms of care that attempt to rescue individuals from conditions that have placed their lives in relatively imminent danger—is usually distinguished from nonacute care—those forms of care that address illnesses and disabilities not so immediately life-threatening.

The ideal at which preventive medicine aims, and which it surely will never realize entirely, is to make rescue medicine unnecessary altogether. The extent to which this ideal is approximated is, in no small measure, a function of whether the medical technologies we develop are those of prevention or those of rescue. Since, in the first place, avoiding illness and disability generally is preferred to being restored to health and normal functioning, it is surely plausible to think that the ideal at which medical prevention aims is one that ought to be realized as completely as possible and, accordingly, that the medical technologies we develop ought to be those with the greatest promise for medical prevention. (The popular image of preventive medicine depicts it as a largely nontechnological form of medical care. I can find no reason to take this to be true. Althought the technologies of effective preventive medicine are likely to be substantially different from those of acute-care rescue medicine, technology will be crucial nonetheless.) If this is correct, and if the general perception that we presently heavily favor rescue medical care, especially acute care, over preventive medicine is also correct, then our present medical priorities are badly misplaced.

Is this judgment correct? Are our medical priorities badly askew? Do we, as a society, devote far too much of our medical care budget to rescue medicine and its associated technologies? According to what may be the majority point of view on these matters, allocations within our health care budget should be based solely on the aim of getting the biggest "medical bang for our medical buck." That is, in determining what portion of our total medical care resources should go to the development, production, and/or purchase of rescue medical care, and associated technologies, the overriding concern, and perhaps the sole concern, should be cost-effectiveness. Given that a certain portion of society's total resources have been allocated to health care, our aim should be to use those resources to generate the mixture of rescue and preventive medical care that will most reduce levels of morbidity and mortality in our population. On this view, to do less would be to waste health care resources and, thereby, to do less to maintain and restore health than can be done within the limits of our health budget. This, in turn, means that some persons would obtain less health care or lower-quality health care

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than otherwise. Since health care can be extremely important to a person's ability to lead a satisfying and productive life, waste of this sort is extremely undesirable.

Although determining what will yield the biggest medical bang for our medical buck is neither easy nor simple, and although opinion is far from unanimous (see [1] for a discussion of some of the ethical and conceptual difficulties involved in judgments of cost-effectiveness), a substantial and apparently growing number of those who agree that cost-effectiveness is the appropriate metric also believe that our society does devote far too much of its health care budget to rescue medicine, particularly acute care. (References [2] and [3] survey the views of those who hold this opinion.) Proponents of this viewpoint claim that, whereas this type of medical care is very costly, its impact on morbidity and mortality statistics is marginal at best. In short, acute-care rescue medicine is alleged to have failed the test of cost-effectiveness. And the blame is frequently placed squarely on the technologies of acute-care rescue machine [4]. It is asserted that these technologies are typically halfway technologies, technologies that do not and cannot address the underlying causes of the illnesses and disabilities they treat [5], [6]. Instead, they merely palliate and moderate some of the more important symptoms of these ailments. Although this is no trivial achievement—indeed, it means the difference between imminent death and extended life for many patients—critics adamantly insist that such technologies rarely extend life for long periods and do so at enormous cost and significantly lower-than-normal quality of life. When the diseases and disabilities now treated by means of halfway technologies are understood adequately, definitive technologies,—technologies that are curative—will be forthcoming. Until such understanding is attained though, the lion's share of our collective health care budget should be devoted to prevention.

Suppose for the sake of argument that the most reasonable interpretation of the best available data unequivocally yields the conclusion that, as a society, we can get the biggest medical bang for our medical buck only if we shift substantial amounts of resources away from rescue medicine, particularly acute-care medicine, to preventive medicine, and that our efforts in the development of medical technologies would be best concentrated where they will enhance the efficacy of prevention. (Although many commentators claim that preventive medicine is highly efficacious, this assessment is by no means unanimous [3].) Would this be sufficient to justify such a shift? That is, would increased cost-effectiveness alone be reason enough to abandon, to a large degree, the efforts we presently make at acute care rescue in order to intensify and increase our efforts at prevention? (Presumably, some level of expenditure on acute-care rescue medicine would be included in any reasonable health care budget. Accordingly, the issue is not whether this form of medical care should be eliminated but whether it should be deemphasized in favor of greater expenditure on preventive medicine.)

Some argue that it would not. Proponents of this position claim that considerations other than cost-effectiveness are relevant, and that such considerations show that we should not shift resources away from rescue to prevention even if we are certain that doing so would purchase significant decreases in morbidity and mortality levels in our population. As Benjamin Freedman [2] puts it: "An ounce of prevention is not necessarily worth more than any amount of cure simply because it produces better mortality and morbidity statistics." Arguments on behalf of this position often appeal to a distinction that concerns the respective beneficiaries of rescue and prevention. Whereas the former are identifiable persons, the latter are mere statistical persons. In other words, when rescue efforts, medical or otherwise, are undertaken, they are deployed on behalf of known persons who are presently in peril, identifiable persons whose health, normal functioning, and/or very lives are under seige here and now. Indeed, how could it be otherwise? Rescue efforts can be made only when someone in need of rescue has been identified. When preventive efforts, medical or otherwise, are undertaken, although it may be possible to identify which persons in a population are at risk, which ones are actual beneficiaries of those efforts cannot be determined in most instances. An individual who is at risk of some ailment may not fall victim to it, even if no preventive efforts are made on his or her behalf. Therefore, if he or she remains healthy when preventive efforts are made, it does not necessarily follow that one's good fortune is due to those efforts. When rescue efforts succeed, actual individuals can be identified as their beneficiaries. When preventive efforts succeed, although statistical data will show that morbidity and mortality rates were lowered in a given population, we usually cannot know which individuals in that population actually were prevented from becoming ill or disabled by those efforts. Indeed, some of those whose health and/or lives were thereby maintained might not have yet been born at the time the preventive measures were actually deployed. (Menzel [7] marshals a number of arguments suggesting that the alleged correlation between rescue medicine and identifiable persons on the one hand, and preventive medicine and statistical lives on the other, is not as strict as it might seem, and even that the very distinction between identifiable and statistical persons may be untenable.)

This difference between identifiable and statistical lives gives rescue (medical or otherwise) a psychological/emotional impact what prevention lacks. Deliberately omitting efforts to help persons whose peril is immediate to us is extremely difficult. We cannot help but actively empathize with their plight. Persons who have some chance of being in peril but who are unknown to us are likely to strike us as faceless abstractions. They are mere statistics. Their peril is not real to us in the immediate and visceral manner of persons who are sick or disabled her and now. The plight of the first recipients of the

Jarvik-7 artificial heart, Barney Clarke and William Schroeder, for example, was meaningful to us in a way that is not the case for the many individuals who may contract severe heart disease if appropriate measures of prevention are not taken. Millions of people came to know who Clarke and Schroeder were as fathers, husbands, brothers, and the like—as people who mattered to other identifiable people. We came to know what their hopes and fears were as well as what they and their families suffered because of their ailments. For reasons such as these, most of us cannot help but be moved when William DeVries defends his implantation of a Jarvik-7 artificial heart in Murray Hayden with the following description of Hayden's condition prior to the surgery. "Murray Hayden . . . had to wake up every morning with his head between his legs so he could breath. Every time he laid out flat in his bed he smothered and started coughing. I can't think of anything worse than not being able to catch your breath, not being able to breath, and believng that every breath you take is your last [8]." This psychological fact—that we are far more easily and deeply moved by the plight of identifiable persons in known peril than by mere statistical persons facing the same possibility of peril—may explain why some regard rescue medicine as special and, therefore, as meriting priority over prevention, regardless of cost-effectiveness.

Yet, from the fact that we are better able to empathize with the beneficiaries of rescue medicine than with those of preventive medicine because we know who they are, nothing follows concerning the allocative decisions that society ought to make with respect to rescue and prevention and the technologies by means of which they are delivered. The persons whose lives and health are preserved by successful efforts at prevention are as real as those who benefit from successful rescue efforts. That we do not know who they are does not alter this fact. The important fact is that we know that their lives and health have been preserved whoever they are. We may not be as easily and deeply moved by their circumstances, but this is not a sound basis on which to make decisions within a society's health care budget. How we feel on this matter may not be how we ought to feel. [Focusing on the artificial heart, Albert Jonsen notes that these feelings might lead to undesirable outcomes. Jonsen argues that the artificial heart, if successfully developed, could turn out to be a very dangerous technology precisely because it would benefit identifiable persons. Specifically, because of our feelings for its beneficiaries, the artificial heart poses the danger of consuming resources that could do far more on behalf of the lives and health of many more (some of whom are society's most needs members) [9].] That we are more easily and deeply moved by the beneficiaries of rescue does not show that our feelings are justified.

A somewhat more persuasive attempt to show that rescue medicine is special in some morally significant respect focuses on the alleged symbolic value of rescue efforts (whether medical or not). There are two aspects to the alleged symbolic value of giving significantly higher priority to rescue medicine (especially acute-care rescue medicine) than to preventive medicine: What is symbolized about those who are the subjects of rescue attempts and what is symbolized about the society that undertakes those attempts. With respect to the former, the symbolic value argument "suggests that rescue attempts show that individuals are 'priceless,' that they are too important to be allowed to deteriorate or die permaturely without a fierce struggle on their behalf. With respect to the latter, the symbolic argument suggests that rescue attempts show that "society is 'too good' to let" its members "die without efforts to save them," that it is the kind of society that cannot "stand pat and let present victims die for the sake of future possibilities" [10].

This argument is compelling only if, in fact, rescue medicine is more effective and efficient at reducing morbidity and morality rates than preventive medicine. If it is not, then giving priority to rescue medicine in the allocations made within society's health care budget is to fail to do as much on behalf of human life and health as can be done within that budget's limits. It is to fail to value human life and well-being as much as the constraints of our health care budget will allow. (It is worth noting that what is sympolized concerning the value of human life and well-being by how a society utilizes the resources within its health care budget is tied to the size of that budget relative to expenditures on other socially desired goods. Efficient use of health care resources says little on behalf of the value of human life and well-being if a society chooses to devote an unduly small share of its total resources to health care.) In this case, rescue efforts can be regarded as having the symbolic value that is attributed to them only insofar as the members of society are unaware that such efforts, in fact, are not the most efficient available means of preserving health and lives. To believe that society better symbolizes its high regard for the well-being of its members by giving allocational priority to efforts at maintaining life and health, which are not the most effective and efficient available within our budgetary limits, is to be deluded. No society should base its health care priorities and decisions concerning type of health care technology to develop and produce on a deluded symbolism. Charles Fried is quite correct when, in an ironic bit of understatement, he says: " . . . surely it is odd to symbolize our concern for human life by actually doing less than we might to save life" [11]. If a society wishes to show that it values the lives and well-being of its members as highly as its health care budget will allow, and wishes to engender in them a sense that they are indeed so valued, it would do well to place its resources where they are most effective and efficient in reducing morbility and mortality.

Perhaps the most compelling consideration in favor of giving priority to rescue is respect for personal liberty. The vast majority of us are born healthy and made ill, disabled, or caused to die prematurely by our own voluntary behaviors. As John Knowles points out, "Preven-

tion of disease means forsaking the bad habits which many people enjoy—overeating, too much drinking, taking pills, staying up at night, engaging in promiscuous sex, driving too fast, and smoking cigarettes—or, put another way, it means doing things that require special effort—exercising regularyly, going to the dentist, practicing contraception, ensuring harmonious family life, submitting to screening examinations [12]." And the crucial fact is simply that, many, perhaps most, individuals do not choose to give up their bad habits and make the special efforts that would significantly reduce their chances of needing medical rescue at some point.

For example, that smoking cigarettes is clearly a major causal factor in heart disease, lung disease, and cancer is common knowledge. Many fewer people would need to be rescued from these ailments if they simply chose not to smoke or to quite smoking. Given that many people choose to continue to smoke and many others will choose to take up this habit, why doesn't our society simply make the option to smoke unavailable to individuals by banning the production, sale, and use of cigarettes and related products? Likewise, that regular exercise is important to maintenance of good health is widely known. Yet, many individuals choose not to make the extra effort required to include regular exercise in their lives. Why doesn't society simply force its members to exercise regularly?

Indeed, in general, it may be true that, for preventive health care and associated technologies to be effective enough to merit much investment of society's health care resources, coercive limits on individual choice of this type would have to be enacted. However, our society has a long-standing and deeply held commitment to personal autonomy based on the belief that a life worth living is a life based on one's own freely made choices. Western ethicists, arguing from widely disparate premises, have tended to agree that, to be denied personal autonomy is to be degraded and reduced to the status of a mere "thing." This commitment has led us to accord individuals a nearly absolute right to make their own choices as long as they do not impose harm on others, and this makes us reluctant to go very far in using coercive measures to alter individual behavior. This reluctance coupled with the unhealthy choices that individuals make may mean that rescue medicine is our best bet, that "big ticket" medical technologies such as the artificial heart are precisely the types of technologies that our resources should be most heavily expended on. Not because they are more cost-effective, they may not be; nor because they are especially apt means by which society can express its regard for the well-being of its members; but because we greatly value our freedom to behave in ways that make it very probable that we will need eventual rescue from life-threatening ailments and are not at all reluctant to exercise that freedom. As a society, our respect for personal liberty means that we allow individuals to produce, advertise, and consume substances that harm them, and that we allow them to lead unhealthy life-styles and to make their livings persuading others to do so. Even if it is not cost-effective and, hence, a wasteful use of health care resources, acute-care rescue technology may merit priority in our health care allocations simply because it is most compatible with our respect for personal liberty and how we choose to exercise that liberty.

An irony worth notice is that the willingness of individuals to voluntarily jeopardize their health may itself be due, at least in part, to their faith in the ability of technology to rescue them if and when the harmful consequences of their choices catch up with them. We may be victims of what ethicist Lance Stell has referred to as medical utopianism—the view that medical technology will make possible ever-earlier diagnoses of killer diseases and provide sufficient backup spare parts to extend progressively and perhaps indefinitely the population's life expectancy [13]. As long as this faith induces individuals to exercise their rightly cherished freedom in unhealthy ways, any gains in cost-effectiveness that might be gotton by devoting more of our health care budget to prevention may be inaccessible.

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