Triage in Medicine, Part II: Underlying Values and Principles

John C. Moskop, PhD
Kenneth V. Iserson, MD, MBA

From the Brody School of Medicine at East Carolina University and the University Health Systems of Eastern Carolina, Greenville, NC (Moskop); and the University of Arizona, Tucson, AZ (Iserson).

Part I of this 2-article series reviewed the concept and history of triage and the settings in which triage is commonly practiced. We now examine the moral foundations of the practice of triage. We begin by recognizing the moral significance of triage decisions. We then note that triage systems tend to promote the values of human life, health, efficient use of resources, and fairness, and tend to disregard the values of autonomy, fidelity, and ownership of resources. We conclude with an analysis of three principles of distributive justice that have been proposed to guide triage decisions. [Ann Emerg Med. 2007;49:282-287.]

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THE MORAL SIGNIFICANCE OF TRIAGE DECISIONS

In the aftermath of a massive natural or man-made disaster, triage officers face difficult decisions about who will receive scarce life-saving treatment and who will be left to die without treatment. Even in "routine" emergency department (ED) triage, decisions about who should receive treatment priority and who can wait for treatment may, at least occasionally, have life-and-death consequences. Because they can have such serious consequences, triage decisions may weigh heavily on those who must make them. It is therefore important that triage officers understand the triage system they employ and the moral values and principles upon which it is based. If triage officers do not understand the ethical basis for their decisions, they may be indecisive. Failing to act due to moral uncertainty is unacceptable, however, since inaction is often the worst of the available options.[1]

In mass casualty situations, out-of-hospital health care workers may be asked to serve as triage officers in the field, despite the fact that they have less experience and training than the senior emergency physicians and trauma surgeons who usually perform this task at hospitals. To relieve these out-of-hospital providers of the fear of making grievous errors by triaging some salvageable patients to the "expectant" category, the Simple Triage and Rapid Treatment (START) protocol suggests that a new category (Triage tag: Blue) be inserted between the patients who need immediate transport (priority) and those with significant injuries, but who can wait for treatment (delayed). This would effectively still give priority patients the most access to medical resources while making sure that no one was left to die because of a triage error.[2]

Evacuating hospital patients after widespread or devastating in-hospital disasters may be even more difficult than out-of-hospital triage. Triage criteria may demand that, contrary to their normal practice of devoting maximum time and resources to the sickest patients, clinicians must first evacuate ambulatory patients, then those not dependent on high-intensity care or advanced technology. Such was often the case during hospital evacuations following Hurricane Katrina. Unlike those who routinely work in the emergency care system, the physicians often given this triage task are not professionally or emotionally prepared to perform it. They may be particularly distressed by having to categorize patients as "expectant."

Especially in disaster situations, clinical experience prepares triage officers better than formal training. Similar experience can be garnered in a busy trauma center/ED and by practicing in austere medical environments. Burkle listed the 10 characteristics of good triage officers (Figure).[3] Recognizing the ethical basis for difficult triage decisions underlies many of these qualities.

TRIAGE AND VALUES

Part I of this 2-article series described a spectrum of different triage systems and criteria employed in a variety of settings. Triage systems also rely, implicitly or explicitly, on a several different health care values. Other significant values in contemporary health care play little or no role in triage. To begin an ethical analysis of triage, therefore, let us first consider how triage fosters the values of human life, health, efficient use of resources, and fairness.

Values Fostered by Triage

Human life. As part of the health care enterprise, triage seeks to preserve and protect endangered human lives. As noted

Clinically experienced	Well recognized
Good judgment and leadership	Cool under stress
Decisive	Knowledge of available resources
Sense of humor	Imaginative and creative problem solving
Available	Knowledge about anticipated casualties

Figure. Traits of a good triage officer.

above, triage systems typically assign priority to patients who have an immediate need for life-sustaining treatment. Although the preservation of individual lives is highly valued in most triage systems, it is not generally an absolute value. That is, triage systems often direct that patients with life-threatening injuries not receive life-sustaining treatment, as, for example, if the chance of success is too low or if the required treatment would expend too many resources needed to treat other patients. Thus, many triage systems allow the loss of an individual patient's life to provide life-saving treatment for other patients in need.

Human health. Although triage systems typically give highest priority to patients with immediate needs for life-saving treatment, they also grant priority to patients with urgent or emergent needs for treatment to preserve or restore function or health. Unless the situation is one of extreme scarcity, therefore, triage-guided health care delivery systems will meet patient needs for both life-saving and non-life-saving treatment. Patients with less urgent or less serious conditions may, however, have to wait until those with more serious needs have been treated. That waiting period may be a time of pain and suffering, and it may also increase the risk of treatment complications or poor outcomes.

Efficient use of resources. As noted above, triage is a response to scarcities of health care resources in particular settings, during which health care providers typically seek to use available resources to achieve the best overall outcome. Thus, triage systems tend to direct resources to the care of those patients whose needs are great and for whom treatment is likely to be successful, and to withhold resources from those patients who are not likely to benefit significantly from treatment, because their injuries or illnesses are either too severe to be successfully treated or too minor to require treatment. It is important to note, however, that triage systems may differ in the outcomes they strive to produce. For example, a disaster triage system may seek to maximize the number of lives saved, while a military triage system may seek to maximize the number of injured or diseased soldiers returned to combat duty.

Fairness. Decisions or actions can be described as "fair" in 2 different senses: procedurally and substantively. Procedurally, an action is fair if it conforms to the rules governing the practice in question. Because triage decisions are made according to established rules, they allow judgments about procedural justice, that is, whether the system's rules were followed. The reliance on decision rules distinguishes triage from the unfairness of decisions made arbitrarily or on the basis of personal prejudice. In a substantive sense, an action is fair if it conforms to an accepted standard or principle of justice. Because triage systems distribute scarce medical resources among people in need, they typically appeal to one or more principles of distributive justice. A subsequent section of this article will be devoted to an examination of several of those principles.

Values Foreign to Triage

In addition to recognizing the values promoted by triage, it is also important to note that triage systems generally disregard several other prominent health care values, including autonomy, fidelity, and ownership of resources.

Autonomy. Contemporary theories of biomedical ethics rely heavily on the value of personal autonomy.[4, 5] These theories emphasize the patients' right to make choices about their health care; that right is enshrined in the doctrine of informed consent to treatment. Other commentators defend the physicians' right to autonomy in their practice decisions, including decisions to accept patients and to refuse requests for futile or harmful treatment.[6, 7] Both patients and physicians have come to expect considerable autonomy in their interactions. Triage systems, however, make little or no mention of autonomy. Instead, without being consulted or asked for their consent, patients are simply assigned to treatment categories based on their conditions. Triage officers, in turn, are not free to assign patients to treatment categories at will, but must conform to established criteria in assigning patients to different triage categories.

Fidelity. The physician-patient relationship is traditionally understood as a fiduciary relationship in which the physician has a responsibility to act in the best interest of the patient, favoring the patient's interests over self-interest or the interests of others.[8, 9] This responsibility, sometimes called "fidelity" or "loyalty," enables the patient to have confidence in the physician's firm commitment to his or her interests. In contrast to this unqualified commitment of fidelity or loyalty to "one's own" patients, triage officers are required to assess each patient's condition impartially and to assign treatment priority based on established criteria. Triage officers and physicians working within a triage system cannot, therefore, pledge unqualified commitment to any individual patient based on a new or continuing relationship with that individual patient.

Ownership of resources. Health care delivery systems in the United States typically grant the owners of the financial and material resources for health care significant control over the use of those resources. For example, health care institutions, including hospitals and physician practices, may decide whether or not to accept a patient, and such decisions often turn on whether the patient is able to pay for the treatment provided, either directly or through a health insurance plan. The most prominent exception to this linking of health care with payment in the United States is the federal requirement that health care institutions provide screening and stabilizing treatment for patients with medical emergencies, regardless of ability to pay.[10] Triage systems follow the paradigm for emergency treatment,

not the more general US approach to distributing health care resources. That is, in guiding decisions about treatment priority, triage criteria do not consider who owns the health care resources or whether individual patients have the ability to pay for their care.

TRIAGE AND PRINCIPLES OF DISTRIBUTIVE JUSTICE

Triage schemes systematically allocate the benefits of health care, and the burdens of limited, delayed, or deferred care, among a population of sick or injured persons. This makes triage a classic problem in the domain of distributive justice, that branch of ethical theory that addresses questions of how benefits and burdens should be distributed within a population. Moral philosophers have proposed and defended various principles of distributive justice to guide these allocation decisions. Triage planners, in turn, have appealed to one or more of these principles to defend a particular triage system. We will examine 3 principles of distributive justice: the principle of utility, the difference principle, and the principle of equal chances, focusing on how each might be used to defend different triage systems.

The Principle of Utility

The principle of utility, also called the greatest happiness principle, is the cornerstone of utilitarianism, a widely discussed ethical theory first clearly articulated by the British moral philosophers Jeremy Bentham in 1789[11] and John Stuart Mill in 1863.[12] Philosophers have proposed many different interpretations of utilitarianism and different versions of the principle of utility. Broadly speaking, however, utilitarians hold that actions should be judged by their consequences and that actions are right or good insofar as they produce the greatest net benefit among all those affected. Note that the principle of utility requires that consideration be given to the good or bad consequences of one's actions for everyone concerned; no one's interests can be ignored. It does not, however, require that one's actions have the same or similar consequences for everyone affected, but rather that the greatest overall benefit be achieved. Thus, bad consequences for some may be justified if an action produces the greatest overall benefit.

The principle of utility offers a general guide to action, and it clearly can be applied to the distribution of benefits and burdens among individuals. In fact, justifications of triage systems often appeal explicitly to the principle of utility. For example, Hartman asserts simply: "The rationale for triage is utilitarianism, or to do the greatest good for the greatest number."[13] Similarly, Repine et al observe that "in the acute setting of combat medical care, the physician's duty is changed to 'do the most good for the most people'."[14] Although commentators often do not go on to explain exactly how triage systems maximize utility, links between the 2 are fairly obvious. Triage systems seek to use the available resources to achieve the health benefits of survival, restoration or preservation of function, relief of suffering, and so on. To maximize these benefits overall, however, triage systems may dictate that treatment for some patients be delayed or denied, often resulting in increased suffering or poorer outcomes for those patients.

The principle of utility may well offer the most compelling moral justification for the practice of triage, but a close examination reveals difficult underlying questions about the proper scope of concern or consideration, the calculation of consequences, and the production of unequal outcomes. We will briefly examine each of these areas in turn.

The scope of concern. Triage systems typically focus on the population of patients needing health care in a particular situation, asking how the available resources can be used to achieve the best overall health outcomes for them. It seems reasonable to focus on this population, since they will be most directly and significantly affected by the triage system, and the effects of the system on them will be easiest to predict and measure. An initial question, however, is whether the triage officer's focus should be on those patients needing care at a particular time, or on all of the patients projected to need care, both now and in the near future. Since one's triage decisions typically have consequences for future patients, and since the principle of utility requires that all foreseeable consequences be taken into consideration, utility directs that consequences for future patients be considered. Thus, it has been proposed that, during pandemics or weapons of mass destruction events, emergency health care and public service workers receive priority for treatment, since they will, when they have recovered sufficiently, act as "multipliers" of beneficial effects for future patients.[15]

Moreover, the population of present and future patients is not the only group affected by a triage system, and attention to broader consequences sometimes significantly influences triage systems. Perhaps the most prominent example of this attention to broader consequences in triage is the practice, in some military triage systems, of giving treatment priority to less severely ill or injured soldiers in order to return them quickly to combat duty. This practice subordinates the overall health benefits of the population of patient/soldiers to the broader societal benefit of achieving victory in the military campaign.

The calculation of consequences. Choosing one's actions on the basis of their expected consequences requires that one can predict with reasonable accuracy what those consequences will be. A standard criticism of utilitarianism is that it is often very difficult to predict the consequences of one's actions accurately. This criticism may have considerable force in some of the circumstances for which triage systems are designed, such as natural or man-made disasters, since these circumstances may be unfamiliar, chaotic, rapidly changing, and resistant to information gathering. It may be difficult, therefore, for triage planners to determine what triage system or set of criteria will be most effective, and even more difficult for triage officers to determine when and how to apply the triage system in a

particular situation.

Consider, for example, some of the criteria that have been proposed for the triage of battlefield casualties. Larrey's dictum that the most severely wounded be treated first concentrates efforts on those with the most urgent need for treatment, and so seems more efficient than either random treatment or the principle of "first come, first served." If many of these casualties have lethal injuries, however, and if triage officers are able to judge accurately which injuries are mortal, then deferral of treatment of these injuries will result in the most efficient use of the available resources. If, moreover, some serious injuries are treatable, but only with a great investment of resources, and if triage officers can identify these injuries accurately, then deferring treatment of these injuries will also result in the most efficient use of limited resources, since the resources saved can be used to treat multiple other severe injuries. Finally, if some patient/soldiers can be quickly treated and returned to combat, if triage officers can accurately identify these soldiers, and if their return to combat can significantly affect the outcome of the campaign, then giving priority treatment to these soldiers may contribute to the most beneficial outcome for the society at large. Which one of these criteria will, in fact, maximize utility, depends on complex empirical questions about the triage situations and the triage officers' assessment skills.

The creation of unequal outcomes. Triage systems recognize that, because resources are scarce in relation to needs, the needs of some patients will be subordinated to those of others, in an effort to achieve the greatest overall benefit. Thus, a triage system grounded in the principle of utility may direct physicians to deny care to a severely injured but salvageable patient in order to devote the resources that would have been required to save that patient to the task of saving multiple other seriously injured patients. In this situation, one patient is allowed to die in order to save at least several others. Some commentators raise moral objections to the inequality of outcomes in this situation.[9] If this practice is justifiable on the basis of greater net benefit, one might ask, would it not also be justifiable to remove multiple organs from an otherwise healthy person, thereby causing that person's death, in order to save the lives of multiple patients in need of organ transplants?

Questions like the ones posed in this section have prompted some scholars to propose other principles of distributive justice as stronger moral foundations for the practice of triage. We turn now to consideration of these principles.

The Difference Principle

In his influential 1971 volume *A Theory of Justice*, moral philosopher John Rawls proposes and defends a set of 3 principles of justice for governing the basic structure of society.[16] The principles Rawls proposes are principles of distributive justice in the sense that they are intended to guide the distribution of what he calls society's "primary goods," including basic liberties, powers, opportunities, income, and wealth. Rawls' first 2 principles assert that individuals have equal rights to basic liberties and to opportunities for offices and positions within the society according to one's skills and abilities. The third principle, called "the difference principle," addresses the distribution of social and economic benefits within the society. It holds that societal institutions are to be arranged so as to maximally benefit society's least-advantaged persons. The difference principle permits unequal distribution of social and economic benefits as long as such inequalities provide the best outcome for the least well off.

Rawls offers a complex argument to justify his principles of justice. Briefly stated, he asserts that these principles would be the principles of justice chosen by hypothetical contractors acting under ideal conditions for the creation of a just society. The contracting parties, Rawls argues, should be rational and should seek to protect their own interests, but should not be biased by knowledge about their specific characteristics or their position in the society. Therefore, the contracting parties are presumed to know general facts about human society, but none of them knows his or her particular place in the society or his or her own natural assets and abilities.[16] Following this approach, Rawls argues that the parties will adopt a "maximin strategy." That is, they will choose principles that maximize benefits to the worst off in order to protect themselves from an intolerable outcome if they should find themselves in that worst off group.

Rawls did not apply his principles of justice to the distribution of health care, but Winslow, and Baker and Strosberg, argue that Rawls' difference principle can serve as a justification for triage systems.[17, 18] Winslow asks how Rawls' hypothetical contracting parties would view triage situations, and he responds that "the one purpose that would have the most obvious appeal to rational contracting agents would be lowering the probability of the worst possible outcome, in this case, death."[7] Winslow argues that to increase their chances of survival in a triage situation, the contractors would choose triage systems that give priority to patients who can be saved without a disproportionate investment of scarce resources. Though he reaches conclusions about justifiable triage systems similar to those of utilitarians, Winslow claims that Rawls' theory offers a more persuasive defense for triage.

The application of Rawls' theory of justice to the issue of triage poses its own set of problems, however. First of all, Rawls cautions that his principles of justice, and his device of the hypothetical social contract situation, are meant to apply only to decisions about society's basic structure and the allocation of the primary social goods of liberty, opportunity, and income, not to decisions about the allocation of all social goods.[16] If one does attempt to apply the difference principle to complex microallocation decisions like triage, it is not at all obvious how to do so. Winslow argues that the contractors would seek to improve their odds of avoiding the worst outcome, namely, death, and would therefore favor criteria that minimize the number of deaths. Arguably, however, the worst off group in triage situations are those severely ill or injured patients whose risk of death is highest, and for whom the likelihood of successful treatment is low. If, guided by the difference

principle, triage systems should be designed to maximize benefits for this worst-off group, they should give priority to treatment for these most severely ill or injured patients. That rule would be most likely to benefit this clearly disadvantaged group, since at least some of them might be saved, but it would also increase the overall number of patients who do not survive.

In applying Rawls' difference principle to triage situations, much depends on how one defines the worst-off group, since the difference principle directs us to choose the system that maximizes benefits to this group. Proponents of a Rawlsian justification for triage argue that this approach would focus on minimizing the number of avoidable deaths. Their interpretation would direct triage systems to focus on "salvageable" patients, but it seems to ignore the needs of an even worse off group, namely, those who are unlikely to survive or whose treatment would consume a disproportionate share of scarce resources. In fact, philosophers and theologians have argued explicitly that in situations of scarcity, maximizing the number of patients saved should not be the overriding moral consideration.[9, 19-21] We turn now to an examination of one such argument.

The Principle of Equal Chances

In a widely discussed 1977 article entitled "Should the Numbers Count?" philosopher John Taurek considers the following simple triage situation: "I have a supply of some life-saving drug. Six people will all certainly die if they are not treated with the drug. But 1 of the 6 requires all the drug if he is to survive. Each of the other 5 requires only one-fifth of the drug. What ought I to do?"[19]

Taurek acknowledges that it seems obvious to many that one ought to use the drug to save the larger number, but he rejects this conclusion (in a later article addressing triage, Bell also argues that physicians have no obligation to save more lives rather than fewer).[20] Taurek notes that, in the situation he is considering, the magnitude of the harm to each person at risk is the same, namely, the loss of his or her life. Though some patients in this situation might altruistically choose to sacrifice their own life for someone else, Taurek argues that if we were to ask any of the 6 people at risk what should be done, it would also be natural and appropriate for them to prefer that their own life be saved. He explicitly rejects the utilitarian claim that we should sum up the expected benefits and burdens to all the affected persons in order to arrive at the best course of action. Such a calculation would be appropriate, he argues, in choosing which of one's valuable possessions to save in a disaster situation, but not in choosing among human lives. Because each person's life is equally valuable to him or her, Taurek claims that one ought to give each person in his hypothetical situation an equal chance to survive, perhaps by flipping a coin to choose between the 2 options. This approach, he concludes, best expresses an equal concern and respect for each person.

If triage planners are convinced by Taurek's arguments, what kind of triage system should they design? Their goal would be to give all patients an equal chance at survival. They would, therefore, presumably operate on a first-come, first-served basis, giving equal priority for treatment to all salvageable patients, no matter how resource intensive their treatment will be, even though concentration of resources on the care of one or a few patients may result in a greater overall number of deaths. The reluctance of physicians to abandon any patient whom they believe they can save may give implicit support to this approach to triage.

Not surprisingly, a number of authors have challenged Taurek's conclusion that the number of lives saved in triage situations is morally irrelevant.[22, 23] Philosopher F. M. Kamm, for example, argues that the world is a better place if more people are saved than if fewer are saved, and a worse place if more rather than fewer people suffer or die.[22] Kamm acknowledges the importance of respect for the worth of each individual person. She notes, however, that in situations of dire scarcity, we cannot save the lives of all those who seek our assistance, and we know that saving some lives is unavoidably linked with allowing others to die. Kamm concludes that we should honor as many requests for life-saving care as we can, even though we regrettably cannot save everyone.

THE IMPORTANCE OF TRIAGE PLANNING

In this article, we have identified a number of values fostered by the practice of triage, and we have examined several principles of distributive justice to which triage planners might appeal. These values and principles provide the moral justification for decisions by triage officers to provide and to deny treatment to patients. Therefore it is essential that health care system leaders, including public health officials, health care system administrators, and ED directors engage in careful planning for triage in all of its settings, from the daily routine of the hospital ED to a massive earthquake or infectious disease pandemic. We have also argued that, in order to carry out their task effectively, triage officers must clearly understand the triage system they are employing and appreciate the moral basis of that system.

As components of disaster plans and of hospital policy, triage systems are a type of public policy with significant moral implications. In a recent article, Robert Veatch argues that health care professionals and the American public are likely to take different approaches to triage, with professionals favoring triage systems that maximize the overall number of lives saved, and the public supporting systems that give priority to the sickest patients.[9] In addition to health care experts, it is important that public representatives and ethics scholars contribute to triage planning. Broad involvement in triage planning could take a variety of forms. In anticipation of a potential avian flu pandemic, for example, public or professional organizations at the national and state level could organize task forces with multidisciplinary representation to develop strategies to respond to potential outbreaks of the disease. Proposed revisions of ED triage protocols could be reviewed and evaluated by hospital ethics committees or by ethics panels of emergency medicine professional organizations.

CONCLUSION

Triage provides a method to distribute health care resources when patient needs exceed available resources. Triage operates along a continuum of decreasing resources, social order and the resource-to-patient ratio. Arrival patterns, triage methods, and the applicable ethical basis for triage vary along this continuum.

Most triage systems are designed to serve the values of human life, human health, efficient use of resources, and fairness. Nevertheless, given the variety of specific triage settings and goals, there is no single "correct" way to perform or to justify triage. Routine triage in the relatively resource-rich setting of the modern hospital ED, for example, focuses appropriately on maximizing benefits for each individual patient, giving treatment priority to patients whose needs are most urgent. In triage following a massive disaster, where not all individual needs for life-saving care can be met, the focus may shift from an individual to a group perspective, and triage officers may seek to save as many lives as possible with the limited resources at their disposal. In special circumstances such as a nation at war, military commanders may direct that triage systems devote scarce medical resources to achieving a nonmedical goal, namely, military victory. In situations of complete devastation, the lack of social order and minimal resources may make triage impossible.

This article has examined values and principles to which triage planners may appeal. Whether the choice of a triage system for a particular setting is justifiable will depend on an evaluation of the specific system itself, its underlying values and principles, and the setting in which it is applied.

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Address for correspondence: Kenneth V. Iserson, MD, University of Arizona, 1501 N. Campbell Avenue, POB 245057, Tucson, AZ 85724; 520-626-2398, fax 520-529-6459; E-mail kvi@u.arizona.edu.

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