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Triage and Ethics

Ken Kipnis, PhD

The term "triage" refers to the procedures clinicians use to prioritize prospective patients. In the background is the unhappy truth that, when vital resources are limited, some will not get what they need, at least not right away. One branch of the field of bioethics deals with the broad problem of allocating scarce medical resources. That discussion, in turn, has its roots in what has long been the central topic of social philosophy: the idea of distributive justice. In the emergency department, patients are usually queued in accordance with the easily grasped principle that the more urgent the complaint, the shorter the wait to see a doctor. Those with the greatest need get priority. As clear and as fair as the rule is, people still complain about the wait.

Analytically, one can think about the patients who present at any clinic as constituting a stream of discrete health-related problems, each of which requires an assessment and an appropriate medical response. The burden to the clinic will be a function of 3 factors. First, there is the rate of presentation of the prospective patients. Other things being equal, more patients per hour means more work to do. Second, there are the resources that are needed to assess and stabilize each patient and to treat his or her condition. While many medical problems are easily diagnosed and treated, others can become burdensome responsibilities. Finally, there is the acuity of each patient's condition. How long can we postpone treatment before the delay aggravates the medical problem and creates a greater need for care? Taken together, these 3 factors delimit the burden of patient need. Though hospitals and other institutions have the responsibility to shoulder that burden as it appears, their carrying capacity can be overwhelmed.

Sometimes—several times a month in many hospitals—a surge of patients or a shortage of staff temporarily overloads carrying capacity. On these occasions, there may be an acknowledgement that the staff's resources are inadequate to provide appropriate and timely treatment for the stream of prospective patients. Rather than offering substandard care, medical centers will go to "bypass," closing their doors to new patients and diverting ambulances to other hospitals. Here, carrying capacity is conceived as regional: institutions have an ethical obligation to work cooperatively to meet the needs of the communities they serve.

Hospitals have to use a different strategy for disasters: train wrecks, plane crashes, earthquakes, tsunamis, and so on. When mass casualties overwhelm the everyday

queuing procedures in all regional centers, diversion fails. This second line of defense has its origins in 19th-century military medicine. Because the goal of war is victory (rather than saving lives), French doctors learned to give priority to injured soldiers—especially officers—who could readily return to the fray. Unlike everyday clinical triage, those with the most serious wounds would receive treatment on a delayed basis, if at all.

Today, disaster triage uses tagging systems that are intended to sort out (1) those who will probably die even if treated, (2) those who will probably live even if not treated and (3) those who will probably live if treated but die if they are not. Those in the third category get priority, especially if their medical conditions are emergent and the procedures required to stabilize the patient are relatively simple. Because errors at intake can create serious problems downstream, this procedure works well only if experienced clinicians handle the initial assessments. Queue-jumping is permitted only if it will return caregivers to their posts during the course of the disaster, increasing the supply of health-related resources during the period of scarcity.

Though it can strain everyday moral sensibilities that the most seriously injured will be set aside to die, there are powerful ethical arguments in support of this hard-headed approach. In the first place, it produces the best outcome; certainly if clinicians have a paramount duty to prevent the largest number of deaths, this is the way to do it. Second, if it were clear that a catastrophe would occur but unclear how serious one's own injuries might be, rational persons would do well to choose this procedure just because it gives them the best chance of survival. Finally, it can fall to clinicians to be stewards of critical and scarce resources during these crises. The primary obligation of stewardship is to prevent waste. Disaster triage provides a kind of guarantee that critical resources will be used with maximum efficiency, that waste will be kept to a minimum. To their credit, hospitals in the United States regularly conduct disaster drills and are generally prepared to handle the tornadoes and train wrecks that would otherwise overwhelm local medical systems.

Though the paragraphs above represent a quick survey of a well-established area of medicine, the threat of terrorism has generated a new need to consider a third line of defense. We can think of a medical catastrophe as a large-scale disaster where the burden of patient need overwhelms the carrying capacity of a regional or national system. Though the Tokyo Sarin gas attack was a comparatively small event, within 60 minutes hundreds of victims arrived on foot at a nearby hospital. Though only 12 died, 5000 poured into emergency departments, contaminating hospital areas and sickening health care personnel. The more serious release of methyl isocyanate in Bhopal killed thousands and injured hundreds of thousands.

In a catastrophe, hospital clinicians would be unable to assess all those presenting for medical care, unable to monitor those for whom treatment has been delayed, and unable to provide follow-up care for those who have been temporarily stabilized. As the injured deteriorate without treatment, more resources will be required

because of delay. Even when the goal is to evacuate the injured to neighboring regions, that too requires assessment, stabilization and care. It can happen that exhaustion and competing responsibilities will draw caregivers away from their posts and that those waiting for desperately needed treatment will not appreciate why it is unavailable. Finally, crowds, contamination, cross-infection and damaged infrastructure can compromise health care facilities themselves. In the worst case, the National Guard would have to protect medical centers from angry, sickening mobs, driven perhaps by a suspicion that essential resources are being hoarded. Hospitals may themselves become serious health hazards.

There are, I believe, 2 important lessons to be taken from such scenarios. First, hospitals cannot manage triage during catastrophe. At some point, disaster triage will be overwhelmed. And second, when catastrophe looms, hospitals must close their doors well before they reach disaster-level capacity, relocating their resources and diverting prospective patients to pre-designated peripheral healthcare venues.

It may be useful to begin to think of pharmacies, neighborhood clinics, hotels, high school gyms (with showers for decontamination), and fire stations (with EMTs) as emergency sites. The aim in a catastrophe is to reduce travel and concentrations of people. We should follow the Israeli model and teach citizens to shelter-in-place, preparing sealed rooms for riding out the crisis. Health care personnel—including dentists, veterinarians, nurses, retired medics, volunteers, etc.—should know when to move to pre-assigned locations. Plans should exist to stock those venues with supplies. Hospitals should be prepared to become coordination centers with robust communication links to peripheral sites. If they need care, citizens should know it is available around the corner and that hospitals are to be avoided.

In learning to manage crowded emergency departments and disasters, physicians have supplemented their traditional patient-centered focus with strategies intended to meet the needs of groups. As worthy as progress has been, the medical profession has not yet outgrown the obligation to stretch its capabilities.

Ken Kipnis, PhD is professor of philosophy at the University of Hawaii in Manoa and is a visiting senior scholar at the American Medical Association for 2001-2002.