



## Perspective

### The Israeli Field Hospital in Haiti — Ethical Dilemmas in Early Disaster Response

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Within 48 hours after the massive earthquake that struck Port-au-Prince, Haiti, on January 12, the government of Israel dispatched a military task force consisting of 230 people: 109 support and

rescue personnel from the Israel Defense Forces (IDF) Home Front Command and 121 medical personnel from the IDF Medical Corps Field Hospital. The force's primary mission was to establish a field hospital in Haiti.

We landed in Port-au-Prince 15 hours after leaving Tel Aviv and began to deploy immediately. The first patients arrived at our gates and were admitted even before the hospital was fully built, within 8 hours after our equipment arrived. In its 10 days of operation, the field hospital treated more than 1100 patients.

Our mission was to extend lifesaving medical help to as many

people as possible. The need to manage limited resources that fell far short of the demands continuously presented us with complex ethical issues. Every mass-casualty event raises ethical issues concerning the priorities of treatment, but the Haiti disaster was exceptional in several ways. Haiti is a poor country with minimal civil facilities, and the earthquake's destruction of infrastructure left millions of people homeless and hundreds of thousands in need of medical assistance. When we arrived, there was no functioning authority coordinating the distribution of the available medical resources.

We were faced with the challenge of establishing an ethical and practical system of medical priorities in a setting of chaos.

Our hospital was designed to contain 60 inpatient beds, including 4 in the intensive care unit (ICU). It had one operating room with a single table. In view of the initial absence of functioning nearby medical facilities and the dire need for medical services, we extended our hospitalization capacity to its maximum of 72 patients and added a second operating table.

Under normal circumstances, triage involves setting priorities among patients with conditions of various degrees of clinical urgency, to determine the order in which care will be delivered, presuming that it will ultimately be delivered to all. After the Haitian earthquake, however, it was

impossible to treat everyone who needed care, and thus the first triage decision we often had to make was which patients we would accept and which would be denied treatment. We were forced to recognize that persons with the most urgent need for care are often the same ones who require the greatest expenditure of resources. Therefore, we first had to determine whether these patients' lives could be saved.

Our triage algorithm consisted of three questions: How urgent is this patient's condition? Do we have adequate resources to meet this patient's needs? And assuming we admit this patient and provide the level of care required, can the patient's life be saved?

In the first days of our deployment, most of the patients we saw had recently been removed from the rubble. The majority had limbs that were compromised by open, infected wounds. Untreated, open fractures meant infection, gas gangrene, and ultimately death. Clearly, the sooner after injury the patient received medical attention, the better his or her chances of survival. Late-arriving patients who already had sepsis had a poor chance of survival. But there was no clear cutoff time beyond which patients could not be saved; each case had to be evaluated individually.

One of the dilemmas we had to confront repeatedly was whether to accept a patient with a crush injury. In such patients, rhabdomyolysis often develops, with resulting impairment of renal function. Given the absence of functioning dialysis facilities, the chances of survival in this scenario were low.

The potential for rehabilitation was an additional consideration in the triage process. Patients

who arrived with brain injuries, paraplegia secondary to spinal injuries, or a low score on the Glasgow Coma Scale were referred to other facilities. Since we had neither a neurosurgical service nor computed tomography, we believed it would be incorrect to use our limited resources to treat patients with such a minimal chance of ultimate rehabilitation at the expense of others whom we could help. But denying care to some patients for the benefit of others was not a course of action that came readily to physicians accustomed to treating all who seek care.

Patients who had just been rescued presented another dilemma. We believed it would be inappropriate to deny treatment to a patient who had survived days under the rubble before a heroic rescue, even though this policy meant potentially diverting resources from other patients with a better chance of a positive outcome. Indeed, one patient who was rescued a week after the quake was brought to us in dire condition. She was admitted, was intubated, and underwent surgery but ultimately did not survive.

After we admitted a patient, additional decisions had to be reached. We needed to optimize the utilization of our ICU beds. At least one of these four beds was designated as a postoperative recovery bed for the first hours after surgery, leaving us with two to three available ICU beds. Using one of these beds for a patient with an extremely severe condition could mean rendering this resource unavailable to others for long periods. Our policy was to try to use these beds for patients whom we anticipated being able to stabilize in 24 hours or less. The practical implication of this

prioritization scheme was that hospitalized patients who were deemed to have a small chance of survival were not likely to be treated in the ICU.

To deal with the ethical aspects of decisions regarding patient placement and treatment options, we created a system of ad hoc ethics committees. The physician who was directly in charge of caring for a certain patient would present the case to a panel of three senior physicians, who would decide how to proceed — a system that relieved individual physicians of the burden of determining a given person's fate. Decisions that were reached by the committee were recorded and became part of the patient's file.

From the outset, our hospital functioned at full capacity. With the exception of patients requiring urgent care, we operated on the basis of a one-to-one exchange between discharges and admissions. Given this policy and the level of activity, in order to function effectively, we also adopted a policy of very early discharge. Patients with infected open fractures were admitted, were operated on, and underwent débridement as needed. They received perioperative intravenous antibiotics and were discharged the next morning. The patients received a full-course supply of oral antibiotics and a discharge letter and were asked to come for follow-up within the next several days. At the entrance to the hospital, we had a waiting area that accommodated approximately 20 patients, most with open fractures. These were patients whom we had already triaged and decided to admit, and they were now awaiting hospitalization. With the discharge of

each patient, a new patient could be hospitalized. Our policy of very early discharge permitted us to treat more than 100 patients per day in a facility with 72 beds.

This policy, while necessary, clearly did not allow us to provide in-house medical care for the duration for which we are accustomed to providing it in a non-disaster setting. Moreover, the problematic nature of early discharge was exacerbated by the unique environment in which we were working: there was no functioning health care system in the community, many patients were homeless, and many children in our care had no adult guardian.

To discharge patients effectively, staff members engaged in discharge planning. We relied on the United Nations and other relief organizations to aid in the postdischarge management of care. With time, more and more groups started to operate, some of them backed by large facilities (such as the USNS *Comfort*). The presence of these groups allowed us to revise our discharge policies, since some of the groups opened referral centers.

Our guidelines for triage, management, and discharge were subject to continuous reevaluation and revision, but throughout our deployment, we were guided by our objective of providing life-

saving medical care to as many people as possible.

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