COMMENTARY

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Proportionality, Pandemics, and Medical Ethics

Much has been written about allocating scarce resources during the COVID-19 (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) pandemic.[1] Less attention has been devoted to whether there is a limit to practitioners' obligations with respect to the care of individual patients. Instead of adequate scrutiny of this question, the tendency has been to hail practitioners who have placed themselves at selfless risk as heroes and laud them with nightly applause.[2]

Although the conduct of health care practitioners has been admirable, approaching medical ethics from the perspective of heroism is neither sustainable nor robust enough to meet the complexity of emergency conditions during a pandemic. And it is unfair because an expectation of heroism presumes that clinicians will assume a disproportionate share of burden that should be distributed more widely.[3]

When medical ethicists assess clinical practice in terms of the proportion of burdens and benefits, they invoke the doctrine of proportionality.[4] A choice is proportionate when the benefits outweigh the burdens. Alternately framed, the relationship between ends and means should be proportionate, that is, adequate or appropriate.[5]

Such formulations inform decisions about all clinical decisions: For example, what is the net risk-to-benefit ratio for a patient being assessed for surgery? Will more benefit than harm accrue from the procedure? In routine clinical practice when we think about proportionality we remain focused on how burdens and benefits play out for an individual patient. We determine what is in the patient's best interest while respecting the patient's autonomy and the interests of families if the patient has lost decision-making capacity.

In the context of the current pandemic, the standard formulation of proportionality is limited. When narrowly cast as an assessment for individual patients, proportionality fails to account for the burdens imposed on others. Consider the quandary of a cardiac arrest in a patient positive for COVID-19 with acute respiratory distress syndrome who is on maximal ventilatory support, 2 pressors with refractory metabolic acidosis. The family has been approached for a do-not-resuscitate (DNR) order but wants everything done; they insist on chest compressions should the patient arrest. There is no provision for unilateral DNR orders in their jurisdiction. The health care team is frustrated and believes that chest compressions would be pointless and expose them to needless risk of contagion. They maintain that the patient is already maximally resuscitated. In their view, restoring and maintaining a viable cardiac rhythm would be impossible. Yet the family persists in demanding resuscitation, leading to what is euphemistically labeled a "futility dispute."

Invoking a more expansive conception of proportionality can factor in the consequences of an attempted resuscitation for practitioners on the scene as well as the availability of resources for other patients whose care might be compromised by this action. Viewed as a balance of burdens and benefits in light of all the interests at stake, the extremely low likelihood of patient benefit from attempted resuscitation[6] can be assessed against the risk of aerosolized contagion to staff that occurs during resuscitation. Judged this way, resuscitation is not only futile, but it is also dangerous. Risk would be compounded if there were limited availability of negative pressure rooms or the staff were ill-provisioned with adequate personal protective equipment (PPE), as has been reported during the pandemic surge.

Understood against this broader context, proportionality also casts the narrow clinical question of resuscitation into a public health frame.[7] It asks us to consider how actions on behalf of an individual patient affect outcomes for other patients and the well-being and safety of staff during a period of scarcity. Not only would a futile resuscitation consume scarce resources like PPE, which might be deployed elsewhere in a more salubrious manner, but it also might expose the precious resource of health care workers to needless risk. This would unnecessarily compromise their welfare and ability to help other patients. With high infection rates of health care workers, some resulting in mortality, there is little justification for exposing practitioners to needless risks for essentially symbolic resuscitations.

Hermeren, in an essay explicating proportionality, suggests that proportionate actions seek to realize an important goal using relevant means that will help achieve the desired goal. The most favorable approach associated with the least risky

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alternative should be employed so that the means are "not excessive in relation to the intended goal."[5] Although saving a life is an important goal, additional resuscitative efforts in the case vignette become disproportionate because they will not achieve that end. In the aggregate, resuscitation becomes disproportionate because of 3 interrelated factors: low benefit to the patient; risk to staff; and consumption of scarce resources that might benefit others. Given this analysis, resuscitation can be deemed excessive in relation to the desired goal.

In contrast to the disproportionality of resuscitation, standard palliative care is an example of proportionate (and obligatory) care given the high morbidity and mortality of COVID-19[8] and the pain and suffering burden it has engendered for patients and their families.[9] Although the challenges of social isolation of family members and the depersonalization of PPE make communication and demonstrations of empathy more challenging, efforts to overcome these barriers can bring benefits to both patients and families.

It is important that there is clarity about goals of care, including the utility of palliative care amid the pandemic. During a crisis environment this will be a challenge when the understandable priority is to save lives. Understanding palliation through the prism of proportionality can help provide this needed perspective and direct critical resources to pain and symptom management, for example challenges such as intensive care unit (ICU) delirium[10] and unrecognized dyspnea while on mechanical ventilation.[11] Clinicians can strengthen their advocacy for expanded palliative care services and units commensurate with the needs posed by COVID-19 when they frame their arguments using the language of proportionality within their institutions and hospital systems.

Closer to the bedside, proportionality can also help clinicians and hospital leadership appreciate the emotional burdens of caring for patients during the pandemic. Patients alone and isolated from their families are especially vulnerable and dependent on the kindness and altruism of clinicians. Without the comfort provided by families, clinicians have to bear witness to their patients' isolation and fears, sometimes lending their iPhone for final goodbyes before intubation. Although the needs of patients are great, so too are the emotional burdens imposed on clinicians who step up and provide compassionate care under impossible circumstances. These extraordinary acts will need proportionate levels of support by peers and hospital leadership to sustain the well-being of the clinical workforce.

One of the limitations of traditional medical ethics, especially evident within the emergency conditions of the pandemic, is that its focus is almost exclusively on the doctor-patient dyad. Embracing a broader conception of proportionality can help practitioners sustain their professionalism when they feel vulnerable and heroism can no longer pull them through their shift. Proportionality can provide a means to redistribute burdens of care more equitably, so one does not need be a hero to practice ethically. Proportionality in an emergency context that goes beyond a focus on the individual patient can also inform decisions about rationing intensive care and the allocation of institutional resources devoted to palliative care.

Proportionality can help us grapple with broader systemic concerns and appreciate the moral significance of the hospital as a social institution. This involves the well-being of health care personnel at risk of infection, the prudent use of scarce resources for all patients positive for COVID-19, the utility of curative and palliative care, and the competing claims of other patients who do not have COVID-19.[12] Proportionality is not just a matter of selecting means to serve appropriately each of these ends taken separately but making appropriate choices across these domains when 1 or more of these ends are in tension or conflict.

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