

Hercules versus the Methane Monster: Separating Law from Mythology for Practical Use in Disasters and Emergencies

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I would like to introduce my subject by recalling the Hydra, that loathsome, deadly, vexatious beast that once presented an extreme danger to public health and safety. Not to be confused with its microbiological cousin, this Hydra was a huge creature that burrowed in swamps around the ancient Greek town of Lerna. Everyone lived in fear of this predatory, multi-headed horror that could kill with its poisonous breath alone. As mythology informs us, it continued those evil ways until Hercules stopped its predations.

Hercules fought that Hydra, intending to use his great strength to cut off each of its hissing heads, one by one. But there was a problem. Each time it lost one head, another sprouted instantly and it seemed Hercules would fail. In the end, he did find a way to defeat the monster. We'll return to this story later to consider his method and its possible relevance to readers of this Journal.

In modern times, an interesting theory has been put forward to explain the Hydra. The swamps around Lerna may really have been plagued by a deadly menace, though not one springing from a multi-headed, taxonomically classifiable monster. The local populace in fact, may have been plagued by threats from a persistent chemical monster: methane gas. The monster remained invincible until the swamps were cleared for agriculture, when it quietly slipped away, but gained symbolic immortality as an enemy of Hercules.

Healthcare professionals serving emergency and disaster victims encounter Hydra-like challenges everywhere. Whether it's a threat to a patient, a community, a nation, or even one that's international in scope, no sooner is one challenge met than another (or many others) springs up in its place. The law is a tool that can help healthcare professionals in such circumstances. Admittedly, it also can become a burden and make things more difficult.

There are two myths about the role of law in emergencies and catastrophic events that must be considered. *Myth One*. "Establish international rules and standards and they will comply." There is a trend that assumes humanitarian challenges always can be met effectively with new treaties or other international standards. However, if rules now in existence always were diligently applied, we already would see less suffering in the world—and less need to consider new international rules and standards.

The second myth contradicts the first. *Myth Two*. "Law is irrelevant and we only need to roll up our sleeves." Healthcare professionals already know that law impacts service delivery within nations, be it with good or ill effects. In transnational settings, law's promise best comes to view when we consider that rules of war already have protected battlefield medical workers, hospitals, and patients for more than two hundred years.

Though health-care law has developed rapidly in some respects, it still has a very long way to go in addressing the needs of healthcare professionals working in prehospital and disaster arenas. Gaps in the law—and opportunities to advance the law to good effect—are found in national and international law alike. Health care professionals should be proud that their predecessors were among the first of humankind to adopt codes of conduct. However, it's clear that there is a lot of productive work waiting to be done on ethical quandaries arising in emergency and disaster settings.

Where are we today on the use of law in emergency and disaster settings? Law as applied in catastrophic settings is most developed for use during armed conflict. The body of law known as international humanitarian law or, sometimes, the law of war or the law of armed conflict, has been in formation for centuries. It sets out general (though important) standards for care of wounded and sick civilians and combatants, and establishes protections for healthcare workers in war zones. It also gives some indication of reciprocal obligations that go along with those rights.

There is still a lot of work to be done in this field. It is no criticism of existing rules to note that changes in patterns of warfare, and welcome expansion of international response by healthcare workers who want to respond in these tragic circumstances, has spawned new legal issues and a need to look at healthcare ethics in wartime. Compared with the legal response to other humanitarian challenges, though, the law in this field truly sets the pace.

The international law of humanitarian response in peacetime is remarkably undeveloped. True, there are treaties addressing humanitarian response following natural disasters and catastrophes triggered by industrial and technological accidents. However, there is no unifying system or set of principles behind them. In fact, these numerous but scattered treaties have not been thought of as forming a recognizable sub-category within the discipline of international law.

The International Federation of Red Cross and Red Crescent Societies has adopted the term International Disaster Response Law (IDRL) to identify law existing in this field, is conducting research on the subject, and seeks to find ways to move this law along in productive channels. (As a matter of disclosure, the author coined this term in 2000 for use by the Federation) Much work remains to be done in formulating national and international law and guidelines establishing the rights and duties of healthcare professionals during natural and technological disasters, expediting their work, and facilitating resolution of ethical questions arising in those settings.

International law only addresses one humanitarian challenge systematically when it takes place in peacetime settings, and that is in the field of epidemiology. The World Health Organization has long furnished leadership in adapting law to the global challenge of infectious disease, but the International Health Regulations are under stress from fast moving public health challenges inextricably tied to economic and demographic globalization. We need to do much more to adapt national and international law for healthcare

professionals coping with epidemiological threats.

Yes, some efforts have been made within national legal systems to address such challenges even where international law remains silent, but knowledge of those efforts and lessons learned, remain close to home. Healthcare professionals elsewhere in the world are unlikely to know of such developments and that knowledge gap is itself a problem.

The journal of *Prehospital and Disaster Medicine* is inaugurating a Section on International Health Law and Ethics. This is a forum for cross-disciplinary dialogue on legal and ethical issues arising in both national and international emergency and disaster settings. The editors encourage contributions from writers interested in every facet of law, ethics, and healthcare in that context. By way of example our interests include (but certainly are not limited to) the law and ethics of patient care, healthcare delivery during armed conflict, first responders and terrorism, international assistance following natural disasters, and the parameters for response in epidemics.

Contributions from lawyers and legal scholars are welcome, but articles written by healthcare professionals are essential to the success of this section. Along with articles exploring such issues in depth, we plan occasional sections on special themes, and will invite a range of brief contributions on these issues. Your submissions and suggestions are welcome and encouraged.

I started this editorial by recalling Hercules and his faltering battle with the Hydra. At least it seemed he would fail, but his nephew Iolaus joined him and stood just behind to administer a brand that cauterized the wound each time Hercules removed one of the Hydra's heads. This expedient kept another from growing in its place and, finally, in that manner, the monster was defeated. Does this story offer any insight for your own work? I believe it can, and hope that this Section on International Health Law and Ethics will help prove this true.

Like much of what has happened in promoting solutions in disaster care these past several decades, the answers come from creative work across professional boundaries. Could Hercules have been a healthcare provider and Iolaus an attorney? As a lawyer with many years of practice in international and humanitarian arenas, it's my belief that law and the legal profession can assist healthcare professionals; playing Iolaus with his brand to the healthcare professional's Hercules. Challenges in prehospital and disaster medicine frequently are Herculean in scope. A more systematic approach to the law and ethics of these Hydra-like challenges can help when you go forth to meet them.