

National Preparedness for a Catastrophic Emergency

Crisis Standards of Care

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PUBLIC HEALTH EMERGENCIES underscore the immediate and crucial need to plan for a mass disaster in which tens or even hundreds of thousands of individuals suddenly require medical care. On October 24, 2009, President Obama declared a public health emergency in response to influenza A(H1N1),¹ but natural disasters (eg, hurricanes, floods, or earthquakes) and terrorism acts (eg, anthrax or a nuclear detonation) similarly demonstrate the critical need for national preparedness.^{2,3}

Public health emergencies evoke troubling questions with life-or-death consequences. Which patients should receive limited resources and who decides? Should professional standards of care change and if so, what are the catalysts? Should the law grant civil or criminal immunity to professionals acting in good faith? Hurricane Katrina is a galvanizing point for answering such difficult questions, so gaining the public's trust is vital.⁴

Ethical Resource Allocation

The health care system should steward resources to avoid rationing if possible. Medical surge response plans should include stockpiling, conservation, reuse, adaptation, and substitution, as well as resource-sharing or mutual aid agreements (eg, local/regional health care response coalitions). To manage demand, surge plans should include home care, community care, and use of alternate care facilities, as well as consumer education.

Yet mass disasters could overwhelm the supply of human resources, hospital beds, medicines, and equipment, requiring allocation of scarce life-saving resources. Medical triage is not an all or none situation, but would fall along a continuum of conventional, contingency, and crisis surge responses.⁵ As a disaster moves along this spectrum, the health system would allocate services to save the greatest number of lives.

Life-and-death choices must be viewed as fair by all affected parties. Triage tools should be evidence-based to maximize utility (eg, exposure or vulnerability) and nondiscriminatory with attention to the needs of vulnerable populations (eg, age, disability, race, sex). To gain the public's trust, states should engage the community through meaningful civic dia-

logue; act transparently in the formation and implementation of protocols; ensure consistency across hospitals and jurisdictions; and introduce mechanisms of accountability.

Physicians understandably feel troubled by discontinuing life-saving treatment such as ventilator support, but are ethically justified in complying with triage protocols to sustain life and well-being to the greatest extent possible. Still, ethical norms do not change during disasters—professionals remain obligated to providing the best care reasonable in these circumstances. The covenant between physician and patient gains rather than loses value in a crisis.

Recognizing that scarce resources may restrict treatment choices, clinicians may not abandon patients. Professionals must always act with compassion through comfort, palliative care, and maintenance of dignity. While professionals have a duty of care toward patients, institutions have a reciprocal duty to support professionals through risk reduction—both physical (eg, personal protection) and mental (respite from intense work conditions).

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States have the political and constitutional mandate to develop comprehensive protocols for disaster events. When crisis care becomes necessary, a threshold has been crossed requiring a coordinated response. Yet the US government Accountability Office concluded that states were ill prepared.⁶

The Institute of Medicine urges the development of uniform guidance by states that is generalized to all crisis events. It defines crisis standards of care as “the optimal level of health care that can be delivered during a catastrophic event, requiring a substantial change in usual health care operations.”² Clinical care committees, triage teams, and a state-level disaster medical advisory committee would evaluate evidence-based, peer-reviewed critical care protocols and other decision tools, and recommend and implement decision-making algorithms to be used in a disaster.²

The Sequential Organ Failure Assessment (SOFA) is a core component of all proposed ventilator triage systems in which

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reallocation of this precious resource is considered.⁷ SOFA uses clinical and laboratory variables (PaO₂, bilirubin, and creatinine) to predict outcome by assessing organ system dysfunction. The American College of Chest Physicians has proposed a series of guidelines for the delivery of emergency mass critical care and has developed the only triage system based on expert consensus. This system evaluates the duration of need and underlying disease of the patient, in addition to the SOFA score acuity assessment.⁷ SOFA was not designed as a prospective predictor of survival and should not be used as the sole criterion for evaluation.

Situational awareness (eg, monitoring critical resources) and incident management (eg, hospital incident response systems) are vital in knowing when to shift from conventional to contingency and crisis surge responses. Key indicators that an upgrade is imminent include changes to available staff, space, and supplies that may significantly increase morbidity and mortality risks. Although the signal is not specific, the indicator for an upgrade to crisis standards of care include the availability of ventilators, oxygen, intensive care beds, hospital staff, essential medicines, and medical transportation.

Surge responses must go beyond acute medical care for physical illness and injury and also must include a full range of services including palliative care and specific response measures for vulnerable populations such as individuals with disabilities. As many as 40% of individuals directly affected by a disaster develop mental health conditions such as depression, posttraumatic stress disorder, and substance abuse.⁸ The need to develop resiliency in the population is important not only to ease mental stress, but also to better prepare individuals to protect themselves and their families.

The Legal Environment

The law should create an environment in which health care professionals and institutions, when acting ethically and within the scope of crisis standards of care, implement crisis care protocols without hesitation due to fears of criminal or civil liability.

Health care professionals and institutions implementing crisis standards of care face a patchwork of liability risks ranging from malpractice, acting beyond the scope of practice, and patient abandonment to privacy invasion and discrimination. Federal and state statutes sometimes afford protection from civil or criminal liability but are often uncertain and inconsistent.⁹ Consequently, policy makers should consider comprehensive liability protections for professionals and institutions implementing crisis standards of care when acting in good faith and without gross negligence.

In disaster situations, state government should have the power to declare a state of public health emergency, authorizing crisis standards of care, adjusting scopes of practice, and relaxing onerous legal requirements that could pose obstacles to providing care needed by the affected population.¹⁰ For example, President Obama's emergency declaration in response to influenza A(H1N1) authorizes the secretary of the US Department of Health and Human Services to temporarily allow hospitals and health departments to establish alternate facilities for treatment and triage, as well as waive certain requirements under federal medical reimbursement, privacy, and antidiscrimination laws.¹ Emergency declarations of this kind can help create a legal environment that is conducive to surge responses that are crucial in times of large-scale disaster events.

The tragedy wrought by catastrophic emergency, whether naturally occurring or intentional, should serve as a clarion call to political leadership, health care institutions, and the community to plan allocation of scarce resources to save lives and safeguard health. A national disaster plan that is uniform, consistent across jurisdictions, transparent, and equitable will preserve the efficient functioning of the health system and ultimately gain the public's trust.

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