

Guidelines for Crisis Standards of Care during Disasters

June 2013

American College of Emergency Physicians

ACEP Disaster Preparedness and Response Committee

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- I. **Background and Terminology** – The Institute of Medicine defined “Crisis Standard of Care” (CSC) to be a “substantial change in the usual health care operations and the level of care it is possible to deliver... justified by specific circumstances... and formally declared by a state government in recognition that crisis operations will be in effect for a sustained period.” Among various different terms used in different titles for this definition, the terms “standard” and “altered” are somewhat controversial, since there are an infinite number of catastrophic types and severities of disasters which may impact any given locality. Many such events are also unprecedented and have no “standard” approach. Thus, our committee prefers to use the term “crisis care.”

A pandemic or other catastrophic disaster may strain medical resources and thereby require a shift in care that was previously focused on the individual patient to that which is focused on doing the most good for the greatest number. Health care resources include, but are not limited to, personnel, supplies, hospital beds and space, medications, and treatment. Rather than doing everything possible to try to save every life; in a disaster, it will be necessary to allocate scarce resources to save as many lives as possible. This “crisis care” is simply what a prudent person would do with the scarce resources at hand. Crisis care, by no means, however, implies “substandard” care; crisis care is what a reasonable practitioner would do (and want for himself and his loved ones), given the limited resources at hand.

Ethical and emotional issues arise from a need to promote the public health of the community over the level of care provided to individuals. Goals of a community dealing with a catastrophic disaster will be to: 1) minimize death and serious illness by distributing finite resources to those who have the greatest opportunity to benefit; 2) maximize appropriate care for the largest number of patients; 3) maximize self-care by the public by using media to deliver public health messages; 4) delineate which health care facilities should provide what level of care based on the capacities and capabilities of the facility; 5) provide a legal framework for developing triage decisions; and 6) engage the public and build trust in the community by being inclusive,

transparent, open, and honest about the limited resources and the resulting crisis standard.

- II. **Liability** – Many practitioners have expressed concern about liability issues. However, it should be noted that no case has been successfully brought against a disaster volunteer, and thus, this fear may be somewhat unfounded. Moreover, if a provider injures someone in the course of performing some public health action, emergency workers, particularly those working as volunteers may receive immunity from liability, since some state laws provide protection for a “Good Samaritan.” Often, state and local public health employees (including authorized volunteers) are not personally liable for actions taken within the scope of their employment, unless the act is willful and wanton. Finally, many states have a Disaster Act or similar legislation that provides liability protection for health care providers and disaster responders. It is important for providers to understand the liability protection afforded to disaster responders in their state.²

- III. **Disaster Triage** – this is triage focused on maximizing the number of lives saved with limited medical resources and personnel. Hospitals will be required to focus on the critically ill while still maintaining core functions (trauma, burn, pediatrics, etc.). During disaster triage, family members may be required to care for patients at home, in hospitals, or alternate care sites.

- IV. **Potential Care Sites other than Hospitals** – during a disaster of catastrophic proportions, hospitals should be reserved for the most critically ill. Thus, some other sites capable of providing health care need to be considered. Such places may include the following:
 - a. Home (phone triage and home health care)
 - b. Extended care facilities or skilled nursing facilities
 - c. Ambulatory surgical centers
 - d. Community clinics
 - e. Physicians’ offices

- f. Mental health clinics
- g. College or school health centers
- h. Churches and other public meeting places
- i. Shelters
- j. Public health points of dispensing
- k. Pharmacies
- l. Dialysis Centers
- m. If the scenario is a pandemic, several patients may be placed in a single room
- n. Parking lots and cars – A drive-through clinical care model has been tested at Stanford for dispensing antiviral agents.

V. **Other actions to increase surge capabilities**

- a. Obtain an executive order from local and state governments to facilitate lower staff-to-patient ratios.
- b. Decrease the number of routine care activities (frequency of vital signs being taken) that are performed.
- c. Decrease documentation of care.
- d. Decrease stringent rules about privacy and confidentiality to facilitate transfer of information between health care providers.
- e. Cancel elective procedures and appointments.
- f. Use areas of the hospital not normally used for patient care.
- g. Consider performing low-risk births at home, rather than at hospitals.
- h. Within reasonable standards and with appropriate training, consider increasing the scope of practice of midlevel providers, nurses, physicians, dentists, pharmacists, physical therapists, etc. Again, the level of care provided by these practitioners should meet the “reasonable” standard, given the limited resources at hand. Conversely, physicians may need to be flexible and perform secretarial, transportation, or administrative duties.
- i. Mass fatality plans – note that there is no urgent or imminent need for a dead body to be disposed to one of four final dispositions within 24 hours

(cremation, burial, refrigeration or embalming), as it has been demonstrated that these bodies are NOT an immediate infection control hazard. There is time to properly respect the cultural and religious beliefs of the affected population.

VI. **Planning**

- a. Advance planning is crucial in anticipating, to the degree possible, the health care needs and resource shortfalls that will occur and to identify policy and operational adjustments that will be needed. Efforts should be made to eliminate scarcity prior to having to implement allocation guidelines by performing and acting upon hazard vulnerability analyses in a fair and transparent process.
- b. At the hospital and institutional level, develop a plan to expand staff capacity, including contingency plans for staff absences, and the use of volunteers. Ensure that a plan for managing volunteers is in place.
- c. Develop a strategy to acquire additional equipment/ supplies if needed, and streamline a process whereby your hospital would get access to the Strategic National Stockpile.
- d. Develop a communication process so the community understands the rationale behind resource allocation.
- e. Plan to restrict visitors and limit hospital entry to a few key entrances and plan for increased security needs.
- f. At the local hospital level, initiate discussions of the process of allocation of scarce resources. It is important for hospital administrators to meet with the hospital ethics committee to establish guidance for scarce resource allocation. The Michigan plan actually outlines inclusion and exclusion criteria for mechanical ventilation (in the event that there are limited quantities of ventilators).
- g. Note that palliative care in the aftermath of a disaster is an ethical imperative (and is recognized as a core institutional competency by the Joint Commission and the National Quality Forum). Palliative care stresses the importance of patient care in four key areas: 1) physical

symptom management (pain, dyspnea, nausea, etc.); 2) psychological symptom management (anxiety, depression, agitation); 3) support for family and close persons; and 4) spiritual support

- VII. **Possible Triggers** – The circumstances that may prompt shifting from optimizing individual health to the public’s health will be based on an assessment of several conditions and/or sources of information. This should be acknowledged at the hospital level, as well. Some possible triggers are:
- a. formal declaration of an emergency by local, regional, state, or national authority;
 - b. loss of essential services, including electricity, water or the supply chain;
 - c. loss of infrastructure, including facilities;
 - d. exceptional surge in numbers and severity over a short period of time;
 - e. shortage of ventilators
 - f. shortage of medications or other supplies
 - g. shortage of providers
- VIII. **Pandemic and pharmaceutical prioritization** – If the scenario is a pandemic, the states receive a limited number of doses of counter-measures such as antivirals, antibiotics, and vaccines from the Federal Strategic National Stockpile (SNS) program. Note that this allotment of medications is intended to treat all hospitalized flu patients, health care workers, first responders, and essential service workers, and all high-risk patients who seek care.
- IX. **Allocation of ventilators and critical care** – Some jurisdictions have developed strategies and criteria for the allocation of ventilators using various scoring systems. For example, in Colorado, according to the Department of Public Health’s written guidance, during a pandemic of catastrophic proportions, ventilators should not to be offered to those with metastatic malignant disease, a terminal illness, or those who have advanced immunocompromise. The Sequential Organ Failure Assessment (SOFA) score may also be used to help triage who warrants critical care or ventilatory management. The SOFA score is dependent upon six variables and patients

can receive a total score of 24 (6 categories with a total of 4 points for each category, and a higher score indicates greater severity of illness): 1) the PaO₂/FiO₂ ratio, 2) Bilirubin, 3) Hypotension, 4) Glasgow Coma Score, 5) Creatinine, and 6) Platelet count. For pediatric patients, the PELOD Scoring System may be used, where a PELOD score of 33 is considered a reasonable proxy for a SOFA score of 11.

- a. **Black** – those with SOFA score > 11 will be managed medically and provided only palliative care
- b. **Red** – those with SOFA score \leq 7 or single organ failure – have the highest priority for care
- c. **Yellow** – those with SOFA score 8-11 – have the second highest priority for care
- d. **Green** – those without any organ failure – may be discharged

X. **Public Engagement** – It is critically important for the medical community to engage the civilian community prior to the occurrence of a catastrophic event. One suggestion would be to assemble a working group of professionals in public health, disaster preparedness, ethics, law, pediatrics, mental health, and all medical subspecialties, along with various community members to work together to develop an official guidance document for defining health care provisions during a disaster. In Michigan, they advocate establishing a Scarce Resource Allocation Committee (SRAC), which would have the authority to make allocation decisions to assign or conserve resources for patient care in the event of a shortage of services, supplies, or staffing.

XI. **How can we help the lone ED practitioner who is faced with these critical decisions (before an event is declared a federal disaster)?** For the practitioner who is working in the immediate aftermath of a disaster, “crisis care” is to do what the prudent person would do with the resources at hand until further assistance arrives. It is how a similarly qualified practitioner would have managed the patient’s care under the same or similar circumstances. The challenge arises because there are some events that have never or rarely occurred and there is no evidence base for what constitutes the

correct or optimal care. As discussed above, this is where and why advance planning and outreach with hospital and community stakeholders and the public is critical. Additionally, during catastrophic situations in which there is really no precedent, every effort should be made to achieve consensus in the ED among physicians, nursing, etc. about the immediate action plan. All providers should have the opportunity for input. This action plan then becomes the consensus for “crisis care” at the time of the event. When the inevitable post-event question of “why didn’t you do this?” is posed, there is strength in numbers and there is an understanding that there was a shift in focus from caring for the individual to do the “most good for the most people.” One other consideration is to document along with another ED provider as a witness (e.g., double-physician) that: “given the severity and gravity of the disaster at hand, we have determined to do the greatest good for the greatest number of victims. Thus, this patient’s injuries which add up to a SOFA score of 13, does not warrant critical care or ventilatory intervention, and we will thereby provide active palliative, comfort care.”

In the case of a pandemic, the CDC website is an excellent resource for guidance on current guidelines and treatment. During such a scenario, the lone practitioner should work closely with the local Department of Public Health (DPH), since those professionals are responsible for surveillance. If there is a surge of cases caused by particular infectious agents the local DPH are responsible for helping trigger a state or federal response. This, in turn, will help bring additional resources and counter-measures.

References:

- i. Colorado Department of Public Health and Environment – Guidance for alteration in the healthcare system during a moderate to severe influenza pandemic. September 2009.

- ii. Devereaux et al. Definitive Care for the Critically Ill during a disaster: a framework for allocation of scarce resources in mass critical care. *Chest* 2008;133: 51-66.
- iii. Institute of Medicine, the National Academies Press, 2012. Crisis Standards of Care – A systems Framework for Catastrophic Disaster Response.
- iv. Koenig KL, et al. Crisis standard of care: refocusing health care goals during catastrophic disasters and emergencies. *J of Exp and Clin Medicine* 2011; 3:159-165.
- v. Pennsylvania ACEP Newsletter, September 2012.
- vi. Powell T, et al. Allocation of ventilators in a public health disaster. *Disaster Med Public Health Preparedness* 2008;2:20-26.
- vii. Schultz CH, Annas GJ. Altering the standard of care in disasters – unnecessary and dangerous. *Ann Emerg Med* 2012; 59: 191-195.
- viii. State of Michigan Department of Community Health – Ethical Guidelines for Allocation of Scarce Medical Resources and Services during Public Health Emergencies in Michigan. August 2011.
- ix. Vawter DW, et al. For the good of us all: ethically rationing health resources in Minnesota in a severe influenza pandemic, 2009. <http://www.ahc.umn.edu>.
- x. Verweij M. Moral Principles for allocating scarce medical resources in an influenza pandemic. *Journal of Bioethical Inquiry* 2009; 161: 159-169.
- xi. Weiss EA, et al. Drive-through medicine: a novel proposal for rapid evaluation of patients during an influenza pandemic. *Ann Emerg Med* 2010; 55.