How Hospitals Have Prepared for Disasters

Connecticut hospitals have developed all hazards emergency operations plans (EOPs) that include annexes for responding to chemical and radiological releases, natural disasters, epidemics or pandemics, accidental or intentional biological agent exposures and other mass casualty incidents. In all cases, current EOPs require that hospitals are sufficiently prepared to meet the surge demands imposed upon them by these emergencies.

Despite these plans, recent large-scale incidents have underscored the necessity for more rigorous and comprehensive preparations to deal with what have become known as catastrophic health events (CHE) or hyper-complex events; that is to say, events which could result in many thousands of sick or injured victims. Examples of such scenarios include large-scale bioterrorism attacks, a nuclear detonation, or a major earthquake. Unfortunately, while conceptualization of the needed preparations exists, their realization is limited the lack of sufficient deployable resources, or transportation and medical assets required to manage the number of patients that a CHE could potentially engender. What is more, we have only just begun a state or national dialogue on altering standards of care in a crisis. Because of the overwhelming potential for the tremendous loss of life resulting from disasters such as the tornado in Joplin, Missouri, the earthquake and ensuing tsunami in Tohoku, Japan and Hurricanes Katrina and Rita in the Gulf Coast of the US, an enhanced level of catastrophic preparedness must be attained to minimize morbidity and mortality from such events. This does not diminish the need for continuing our all-hazards planning and preparedness approach toward disasters and other emergencies of a single-event.

To Connecticut’s credit and in large part because of the support provided by the Connecticut Department of Public Health Hospital Preparedness Program (HPP),
hospitals across the state have been actively engaged in on-going cooperative planning and coalition building which directly contributed to the development and routine maintenance (updating) of emergency operations plans for traditional disasters and public health emergencies. Proven productive planning activities include working with interagency partners, namely, public health departments, emergency management agencies, fire departments, emergency medical services and law enforcement at local and state levels.

In support of cooperative planning, memoranda of understanding (MOUs) with hospitals for the expansion of on-site surge capacity, priority setting for limited resources, expansion of on-site health care work force as well as management of pediatric and other special populations have been developed. Every hospital in the state is also required to provide daily inpatient bed reporting and asset tracking. Currently, this is done through a real-time hospital-bed tracking system (HAvBED) and complemented by a situational awareness tool (WebEOC). During a mass casualty event, the bed and asset tracking system will be invaluable for managing patient surge.

The Connecticut Department of Public Health, with the support of state hospitals, has been a national leader in developing and implementing the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP). The ESAR-VHP program provides a single interoperable network of state-based databases which facilitate the verification and deployment of qualified volunteers in local, state and federal emergency responses. The patient tracking system and the ESAR-VHP were extensively utilized during the recent storm in Connecticut.

**How Hospitals Have Prepared for and Handled Increased Patient Loads**

As mentioned, effective surge capacity requires the coordination of multiple resources including: staff, beds, supplies, equipment, physical structure, and systems. Arguably, the most important component of surge capacity are human resources. Among these are physicians, nurses, allied health professionals and support staff. For Connecticut hospitals, ensuring adequate availability of staff to care for patients may rely on
activation of the ESAR-VHP. It also requires that hospitals maintain HAveBed and WebEOC systems and provide updated information through these systems by conducting daily inventories of inpatient beds, operating room suites and emergency department status.

Whenever hospitals are presented with an emergency or disaster resulting in a marked increase in patient census, key operational decisions and situational assessments are made to maximize the efficacy of medical response, including the implementation of the hospital emergency operations plan; cancelation of non-emergency surgeries and other elective procedures; need to discharge of patients to home, other hospitals, long-term care or home care; and availability of sufficient sources of additional pharmaceuticals, medical equipment such as ventilators and IV pumps and other equipment.

**What Were Some of the Discharge Issues Specific to the Recent Storm Events**

Following the recent Connecticut snowstorm, decisions by hospitals to discharge patients were largely dependent on the locations of hospitals, amount of accumulated snow, number of patient visits, lack of electrical utility and degree of staff absenteeism. Hospitals in areas where large snowfalls occurred issued patient transfer requests to hospitals in areas with very light snowfalls. This is reminiscent of the situation that followed Hurricane Irene in which the Connecticut Hospice, in Branford, began making preparations to transfer patients, medical equipment and staff to the Yale-New Haven Hospital campus to ensure the continuity of care for the Hospice’s patient population, as the result of an electrical power failure.

In the aftermath of the recent snow storm, several hospitals in the most affected areas were constrained to shelter elderly and chronically ill patients (e.g., oxygen dependent or special needs and/or technology/energy dependent individuals such as those with feeding pumps, wheelchairs, etc.) who did not require acute medical attention. In doing so, these hospitals inappropriately expended scarce resources to manage non-acute medical conditions and as such, reimbursement for resources and services rendered may be impossible.
Some Ongoing Gaps Include

As alluded to above, it is likely that following of a major disease outbreak or bioterrorist attack, hospitals throughout Connecticut (and perhaps across the country) would be overwhelmed with patient arrivals and have limited capacities to surge. In addition, surge capacity–related issues extend beyond hospital staffing concerns; among several areas, they impact overall hospital response activities (versus solely medical activities), crisis care standards, alternative care sites and regional coordination of response activities.

The ability to work collaboratively with all response partners to ensure a community-integrated response to a disaster or public health emergency remains a major challenge for emergency preparedness. Of particular concern is the challenge of addressing the needs of at-risk, special needs, and vulnerable populations, including children, the uninsured or underinsured, the elderly, people with underlying health conditions, and lower-income communities.

To this end, the Connecticut Department of Public Health working with the hospitals will continue to participate in meetings with various stakeholders to finalize plans that ensure that special populations including those with functional and access needs, medical dependencies and other at-risk groups are provided with local or regional shelters that are appropriate for their needs during a disaster.

Thank you for the opportunity to address these issues today.

Respectfully,

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