Implementing the Hospital Emergency Incident Command System: An Integrated Delivery System's Experience

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Abbreviations:
EMS = emergency medical services
HEICS = Hospital Emergency Incident Command System
ICS = incident command system
PHS = Partners HealthCare System, Inc.
US = United States

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Abstract

Introduction: Hospital disaster manuals and response plans often lack formal command structure; instead, they rely on the presence of key individuals who are familiar with hospital operations, or who are in leadership positions during routine, day-to-day operations. Although this structure occasionally may prove to be successful, it is unreliable, as this leadership may be unavailable at the time of the crisis, and may not be sustainable during a prolonged event. The Hospital Emergency Incident Command System (HEICS) provides a command structure that does not rely on specific individuals, is flexible and expandable, and is ubiquitous in the fire service, emergency medical services, military, and police agencies, thus allowing for ease of communication during event management.

Methods: A descriptive report of the implementation of the HEICS throughout a large healthcare network is reviewed.

Results and Conclusions: Implementation of the HEICS provides a consistent command structure for hospitals that enables consistency and commonality with other hospitals and disaster response entities.

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Introduction

This report describes the implementation of the Hospital Emergency Incident Command System (HEICS) throughout the Partners HealthCare System, Inc. (PHS), an integrated delivery system operating within the Northeastern United States (US). As one of the first large, academic healthcare systems in the US to implement the HEICS throughout multiple organizations simultaneously, this experience may serve as a model to assist other institutions in organizing large-scale HEICS implementation. The acute care hospitals in the PHS include two tertiary-care teaching hospitals: (1) Massachusetts General Hospital; and (2) Brigham and Women's Hospital; and (3) four community hospitals, all located within the Boston metropolitan area: (a) Faulkner Hospital; (b) Newton-Wellesley Hospital; (c) Salem Hospital; and (d) Union Hospital. Both of the teaching hospitals (1 and 2) are American College of Surgeons (ACS)-designated trauma centers, American Burn Association (ABA) burn centers, and both participate in the National Disaster Medical System. In addition, Massachusetts General Hospital is the home for the Disaster Medical Assistance Team (DMAT) MA-1.

Emergency preparedness and disaster response have become priorities for hospitals as they face the responsibility of preparing for terrorist incidents, use of weapons of mass destruction, mass casualties, and ever-increasing patient volumes, which threaten to create potentially dangerous surge situations. Successful hospital disaster response requires close coordination between all

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hospital departments, and joint planning and coordination with police, fire, and prehospital emergency medical services (EMS) agencies to ensure established lines of communication and authority, as well as flexibility in responding to the scope and scale of an event.

Historically, hospitals have maintained static, rigid, proprietary disaster command systems that were not flexible enough to respond to the nature of the catastrophic event and did not integrate with the command systems of local providers or other hospitals or healthcare systems. Furthermore, hospitals have relied generally on specific individuals in the command hierarchy to function as leaders during such events. Although parallel to an organization's day-to-day command hierarchy, relying on specific individuals has been ineffective in managing such events around-the-clock, as senior management usually was not available immediately during non-business hours or for extended time periods.

The Incident Command System (ICS) is a generic command structure, which has become ubiquitous in fire, police, EMS, and military agencies, and now is gaining popularity for use in the hospital environment as the HEICS. In the 1980s, an inter-agency (local, state, and federal) cooperative effort developed a common organizational system, which fire-protection agencies could use in response to a very large incident, as well as in managing smaller day-to-day operations. The cooperative plan, known as FIRESCOPE,[1] directed by the National Inter-Agency Incident Management System, produced a management system that has become a standard operating procedure now known as the ICS, and currently is used in fire departments across the US.[2]

In 1987, the Hospital Council of Northern California completed work on an adaptation of the ICS to hospital emergency response functions in a publication entitled *Earthquake Preparedness Guidelines for Hospitals*.[2] This document served as a cornerstone in the development of the original HEICS written by Orange County EMS in 1991, with a grant from the State of California EMS Authority.[2] The HEICS was tested first by six hospitals in Orange County, California. In 1992, Orange County EMS created a second edition (Version 2) of the HEICS to make the original document easier to use and implement within the hospital environment.[2] Version 2 has been made available throughout the United States, Canada, and elsewhere.

The HEICS employs a logical, scalable, management structure, which incorporates defined responsibilities, clear reporting channels, and common nomenclature. The HEICS organizational structure is very similar to and is based on the incident command systems used by police, fire, and EMS agencies. The structure is designed to facilitate expanding or contracting positions as needs dictate. This is important, as the HEICS identifies positions and not specific individuals, hospital leadership, or even those charged with leading hospital emergency preparedness initiatives, need not be available or on-call at all times.

Figure 1 is a replica of the original HEICS chart developed by the PHS HEICS task force. By implementing the generic command structure of the HEICS, hospitals can be organized easily by division of tasks with a realistic span of control for each participant in the command system, share a common language and command system with emergency responders, and be flexible in terms of the emergency response to the ongoing nature of the event. For example, for a small, contained event, only relevant sections of the system may need to be deployed, and during the initial phase of activation, individuals may be required to assume multiple positions in the HEICS system until others can respond. Mass casualties from an isolated incident may not require deployment of the entire logistics or operations section. On the other hand, a steady surge of patients from a pandemic flu or bioterrorist event, in which the influx of patients to a hospital can be predicted to last many days or weeks, may require the entire HEICS to be deployed. Appropriate training of key individuals in the use of the HEICS systems, as well as the general design, makes this flexibility possible.

The Partners HealthCare System, an integrated, healthcare delivery system located in Eastern Massachusetts, is comprised of six tertiary-care hospitals, non-acute care and mental health facilities, community health centers, physician organizations and practices, and includes a large, multispecialty physician network. The system employs 33,000 individuals, including 18,000 physicians, has 3,196 licensed beds, accommodates 135,000 annual admissions, >266,000 annual emergency department visits, performs >107,000 surgeries, and >1,621,000 hospital-based outpatient visits per year. The institutions also serve as major teaching centers for physicians and other healthcare professionals with 28 residency programs and 170 fellowship programs, and serve as major research centers with over US$700 million in annual research funding.

Methods

Subsequent to the terrorist attacks of 11 September 2001, the PHS convened a system-wide Emergency Preparedness Task Force with the responsibility of unifying emergency preparedness initiatives across the system and implementing a process for information and expertise sharing. As emergency preparedness impacts every department and function in the hospitals, participants included senior administrators, medical and nursing leaders, emergency physicians, hazardous materials experts, and disaster coordinators from every hospital throughout the system.

As the Task Force began to assess the current level of preparedness at each institution, one of the key initiatives identified for implementation across the PHS was the need for a system of command, coordination, and control at each hospital that blended the key elements of incident management, while allowing for flexibility, efficiency, and consistency. From a system perspective, ease of coordination across all of the hospitals was a primary concern; while at the individual hospital level, command, coordination, and control were of primary concern. A common command structure with shared nomenclature at each hospital facilitated this coordination. The HEICS was the command structure that best fit this ideal. In order to deploy the HEICS throughout the acute, general hospitals, it became important for the leadership to fully understand the power

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Date	Session	Target Audience	Number Attending
1. Didactics			
Session I April 2002	Understanding concepts, transitioning ICS to hospital, staff roles	HEICS Command Staff, other Senior Leaders	80
Session II June 2002		HEICS Support Staff	380
2. Drills			
September 2002	Table Top drill	All HEICS Staff	30–60/ hospital = ~250
November 2002	Activation drill	Selected HEICS Staff	25–60/ hospital = ~250
		Total	**1,000**

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Table 1—Partners HealthCare System HEICS training schedule (HEICS = Hospital Emergency Incident Command System; ICS = incident command system)

of this important tool as well as to consider the best ways to integrate the HEICS into existing institutionally-based, emergency preparedness plans.

A HEICS Planning Group was established under the direction of a senior physician and senior administrator to draft a detailed HEICS implementation plan. The Planning Group developed an aggressive, eight-month program to train and drill all staff with any disaster responsibility for each institution. The goal was to assure that all senior leaders, line supervisors, and operations staff who would fill a position in the HEICS chart (Figure 1) would participate fully in the didactic sessions, tabletop scenarios, and activation drills during the eight-month period. Table 1 is a summary of the sessions, timing, and staff involved in each phase.

An expert consultant from the San Mateo County Emergency Medical Services HEICS Revision Task Force was selected to help guide the implementation of the HEICS. Partners developed a curriculum for the didactic sessions that was based closely on the original HEICS instructional materials and was customized for PHS and its institutions. The tertiary-care hospitals worked closely with the HEICS Planning Group, and an expert was hired by PHS to tailor the HEICS Organizational Chart to the unique needs of the PHS. In each hospital, the existing organizational leadership was incorporated into the HEICS organizational chart. The primary philosophy was that individuals most familiar with the specific functions in each HEICS position ideally should occupy that role whenever they were available. Each HEICS position also was assigned a secondary/backup person to provide for depth and redundancy. For example, each institution's Chief Medical Officer was asked to serve as the Medical Director in the HEICS organizations. A second physician leader also was chosen as a backup Medical Director. In addition, assistant officers and Section Chiefs were trained to function as the Incident Commander. The support staff for each section also was selected. Even with this level of redundant training, there is no way to ensure that the ideal individuals would be available at all times. The HEICS system is designed so that all individuals are trained to function in all roles defined, with supporting job descriptions so that they understand and could fill any of the positions. As each HEICS position has an accompanying job action sheet with a mission statement and initial list of priority tasks, education and training requires an understanding of the system and not a specific understanding of each position.

In order for implementation of this system to succeed, senior leaders from each of the institutions not only must support and endorse the endeavor, but also must actively participate and serve as catalysts for change of the entire institution. The goal was to secure the full support of top leaders in the hospitals, in order to instill the importance of command systems for emergency preparedness. These leaders then would be familiar with the HEICS concepts and could support participation in the education and training throughout the institutions. Therefore, participants in the Emergency Preparedness Task Force identified key leaders at each of their respective institutions for participation in the first didactic session. In addition, Task Force participants from each tertiary-care hospital identified important community, police, fire, and EMS contacts to be included in didactic sessions. Their participation was essential in order to improve future planning and coordination between the hospitals and the emergency services in their respective communities.

Two didactic sessions were designed to mimic, as closely as possible, a real-time command response. Session I, offered to key leaders and Command Staff, included seminar and workshop segments to cover general disaster response concepts, the history of the ICS, structure and utility of HEICS, and methods for deployment. These sessions were approximately six hours in length and included brief tabletop scenarios for preliminary role-playing using the new HEICS model. Refresher sessions are offered on an annual basis for all participants, and all new employees are required to participate in a formal HEICS training course as part of new employee orientation. Multiple drills, which include city and state agencies, designed to keep all participants up-to-date and secure in their roles, are scheduled throughout the year at each hospital. Appendix A details the curriculum used for the didactic sessions. The Task Force had four main objectives for its didactic sessions:

1. Understanding key concepts of the Incident Command System (ICS);
2. Learning how to integrate ICS into the hospital setting through use of the Hospital Emergency Incident Command System (HEICS);
3. Establishing a base of knowledge to incorporate the HEICS into each hospital's emergency plan; and
4. Preparing for system-wide tabletop and activation

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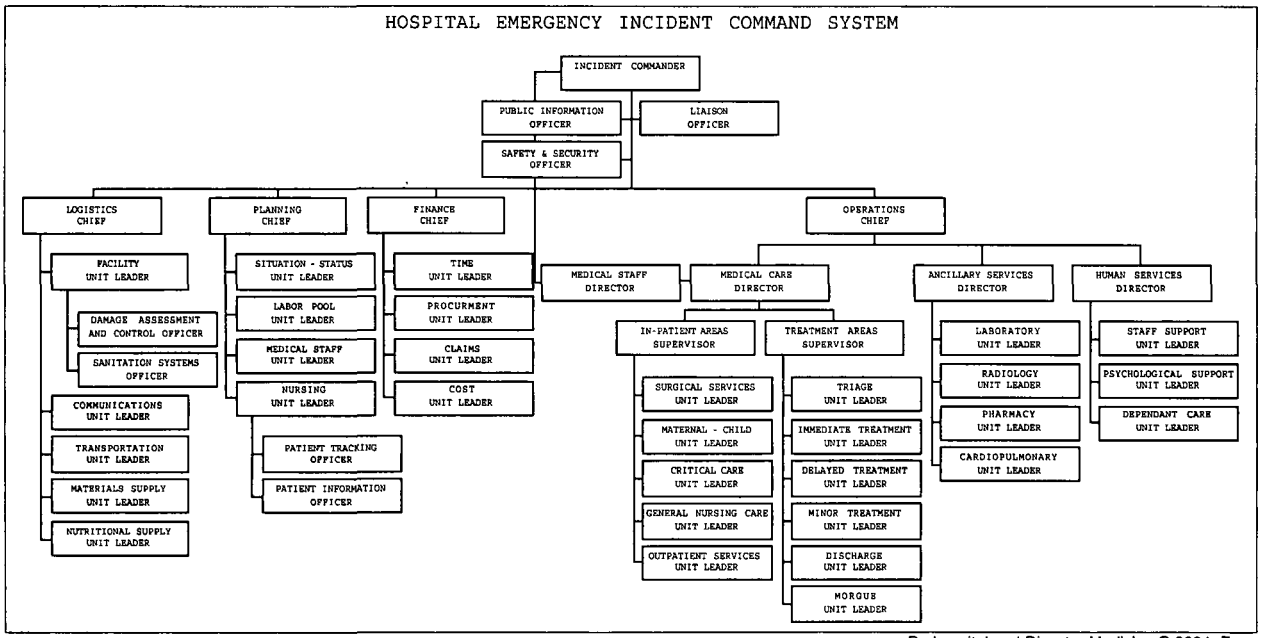


Figure 1—Hospital Emergency Incident Command System (*Source:* California Emergency Medical Services Authority. Available at http://www.emsa.cahwnet.gov/Dms2/heics3.htm.)

drills.

Following the terrorist attacks of 11 September 2001 in New York City and Washington, DC, and with the institution-wide support offered by senior leaders in the PHS, the didactic HEICS sessions generated a high degree of interest, engagement, and participation. Approximately 80 of the tertiary-care hospital senior leaders attended the initial didactic session in April 2002, while 360 medical and administrative staff likely to serve primary or backup roles in populating the HEICS attended the June 2002 session.

Between the two training sessions, the senior leadership who attended the first session were given the task of populating the HEICS organizational structure with the primary individuals they would prefer to assume the roles under ideal circumstances, as well as identifying alternates for each role. Approximately three months after the educational sessions, simultaneous tabletop drills were held at all of the participating institutions in order to allow each institution to practice the deployment of the HEICS alongside their own emergency preparedness plan. Outside observers were asked to participate in the tabletop drill, which also served as each institution's first deployment of HEICS. These representatives included leadership from the local, state, and federal emergency management agencies. These individuals also participated in the debriefing process immediately following the tabletop drill, provided valuable feedback from the perspective of an outside agency, and were able to comment on which areas needed further work and refinement. All hospital emergency management leaders on the PHS Committee reviewed their performance during these tabletop drills. The HEICS system made coordination of these individual institutional efforts possible through the use of common nomenclature and standardization of each role.

The fourth step in the process was a live drill simulating a mass-casualty incident (MCI) using volunteer, moulaged victims. The drill scenario was a dirty bomb that arrived at Logan International Airport in Boston, Massachusetts, on an international flight and exploded soon after the aircraft landed. This drill was done in collaboration with all of the Boston public agencies, including the Federal Aviation Authority (FAA), as part of a city-wide effort to address emergency preparedness. As part of this exercise, not only was the PHS able to test the application of the HEICS in its organizations, but, more importantly, the PHS was able to further practice and refine their relationship with outside agencies as well as their inter-hospital communication and support plans.

This was the first test of the common use of an incident command structure at all of the PHS hospitals as well as the outside public agencies. This resulted in a standardized structure at each hospital, which mimicked that of fire, police, and EMS leading to increased ease of communication between all of the hospitals and outside agencies.

Orientation and training of new staff and re-training of existing staff in the HEICS system also were important for achieving improved responses during a catastrophic event. Accordingly, the Planning Group and Task Force developed an ongoing HEICS curriculum for all hospital staff. For staff filling leadership roles (Incident Command, Command Staff, Section Chiefs) on the HEICS chart, PHS would continue to offer a course, held locally at each hospital and taught by in-house experts. For all other hospital staff filling a role on the HEICS chart, in addition to internal offerings, the PHS offers a range of external courses. Since 11 September 2001, a number of state and federal HEICS programs have become available for use.

Each institution also was charged with identifying one or two individuals who would serve as HEICS leaders and be responsible for continuously updating and educating the

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staff of their respective institutions. These individuals were charged with becoming Federal Emergency Management Agency (FEMA)-certified ICS instructors, and were asked to report progress to a system-wide subcommittee every other month. Those individuals more likely to have a significant role in any type of multi-casualty event also would have much more detailed and extensive training in emergency preparedness. Included in the HEICS implementation was a system of on-going assessment, including frequent, structured, educational sessions and drills, with a formal critique and a feedback loop of evaluation and review that sought to identify and improve upon deficiencies in emergency preparedness response.

Results and Discussion

The HEICS structure is a tool used for mass-casualty/disaster response and is not intended to change, but rather, to complement existing hospital organizations. The introduction of the HEICS into the emergency response structure of the acute-care hospitals of the Partners HealthCare System was an important development in creating better organization and standardization across these institutions in mass-casualty/disaster responses, providing a consistent nomenclature, improving communication within each hospital and with local emergency management agencies, and integrating a system capable of flexible response in accordance with the nature and extent of the incident. The basic organizational structure of each hospital was "overlaid" onto the HEICS structure. In some instances, individuals were asked to play a different role in the HEICS structure than is their normal, day-to-day role.

It became clear throughout the HEICS training process that the basic assumptions upon which each institution's emergency plan was to be based required a reassessment of the entire approach taken to emergency management at the participating institutions.[3] The understanding that each one of the respective emergency management plans needed to be general, all-hazards based, flexible, and adaptable to virtually any scenario became increasingly clear as the system's ability to deal with wide-ranging issues was addressed.[4,5] The introduction of the HEICS system and the flexibility it provided, reinforced the need to rethink each hospital's existing emergency management plans. The HEICS plan is a management tool that may be implemented as part of every hospital's disaster plan. Due to the flexible nature of the HEICS, in which all or part of the system may be deployed with many individuals playing a role or an individual playing multiple roles, based on the type and magnitude of the situation, each plan could become more generic in its overall approach. For example, rather than try to develop "situation dependent" contingencies for each potential biological hazard, each hospital, using the HEICS system, was able to develop a basic plan for all hazards.

In the Boston metropolitan area, there exists a well-coordinated response effort between all public agencies and the Conference of Boston Teaching Hospitals. This long-standing set of relationships has helped improve Boston's ability to deal with many types of disaster-type scenarios over the years. This coordination has allowed emergency preparedness in each of the participating hospitals to be coordinated and organized. However, the HEICS training process illustrated institution-specific needs to create redundancy, which were critical to a state of enhanced preparedness. The HEICS structure allowed for clear organization and an opportunity to have multiple individuals trained for each position. The PHS hospitals have two layers of personnel for each role. In addition, all individuals in any HEICS position have been fully oriented to the structure, so they can perform multiple roles. Nursing supervisors and emergency department physicians have had additional focused training to create additional redundancy for critical command positions. This included a greater focus on the responses to biological, chemical, and nuclear situations. Decontamination and its associated logistical challenges became a major focus for each institution. With help from other public agencies, major improvements have been activated in this area. While the HEICS training did not lead to this *per se*, the plans on rethinking each hospital's plan to incorporate the HEICS system helped to provide the impetus for this additional work. Examples of work recently completed in this area include the development of hazardous materials decontamination teams at each institution, of which members are available at all times to deal with both chemical and nuclear contaminants. Also, infectious disease experts in the PHS have developed a library of reference materials for clinicians, employees, and patients, specific to each potential biological threat.

Historically, hospitals have been guilty of focusing much of their emergency preparedness efforts on the preparation of a written disaster plan and often have ignored the importance of the planning and training process itself.[5,6] The efforts of the PHS at implementing the HEICS system reinforced this notion as the process of education, implementation, and drills were extremely valuable.

Conventionally, emergency planning often is described as requiring four important components:[3,5]

1. *Legitimacy*—That potential users of the plan must view it as useful and legitimate, and this most likely will occur when users actually have participated in the development of the plan;
2. *Knowledge*—The functioning plan must exist in the minds of the users, not only on a piece of paper. Therefore, once again, those who help develop the plan are most likely to know and retain its contents;
3. *Familiarity*—The dependency of multiple organizations and officials becomes important during a true disaster situation. A functioning disaster plan will involve the interaction of many organizations; and
4. *Coordination*—This requires familiarity not only with one's own roles, but also knowledge of how one's actions influence the ability of others to carry out their roles. Coordination also is facilitated when one is familiar with the skills, level of knowledge, and dependability of the other participants with whom one may have to work and on whom

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one may need to rely.

Therefore, an established program for joint disaster planning, training, and exercises is critical, and each community will differ in the manner by which the public safety and disaster response issues are handled. Local-level planning is important to develop strategies that will work in the context of the local peculiarities of the healthcare system and emergency response agencies. In addition, plans must be developed in such a way that both internal and external disasters can be addressed. External disasters are those that occur in the community and may or may not affect the hospital directly. These disasters are due to natural causes or man-made events, such as mass gatherings, acts of terrorism, or transportation crashes. Internal disasters are events, in which unexpected conditions within the hospital compromise the physical plant and/or assets, resulting in a lack of needed resources that may affect patient care.

In order to have an on-site content expert, one or two individuals at each institution, who would be ICS-certified and responsible for ongoing HEICS implementation, were identified, and other appropriate members in each one of the organizations were assigned the responsibility to focus on each one of the HEICS positions. Given the inherent ease of assuming other roles, only two individuals per defined HEICS role were believed to provide sufficient redundancy. These staff contributed to the development of a revised emergency plan that should enhance the ability for HEICS to be an essential component of the emergency preparedness plan.

Limitations

As the implementation of HEICS into each hospital's emergency preparedness plans was evaluated, it has been concluded that HEICS has increased the hospital's ability and flexibility to respond to a crisis; however, the effectiveness of the HEICS deployment throughout the system has not been quantified. Clear and concise evaluation methods for determining success should have been articulated before the actual implementation of the system began. Although qualitative in nature, appropriate survey documents at the beginning and end of the HEICS training process would have helped assess the benefits of HEICS implementation and the improvements that have been implemeneted in emergency preparedness plans. Therefore, future plans are underway to develop and implement a survey tool to assess the success of the implementation and their perceptions and understanding of emergency preparedness at each of the organizations from the perspectives of external agencies, institutional leadership, and staff.

Conclusions

The hospital emergency incident command system is an important element in any hospital's disaster plan, and should be the command structure of choice for disaster response. As the HEICS was implemented in a large, integrated, delivery system, the participating institutions have been successful in the adoption and integration of this process into their emergency preparedness plans. Initial broad-based orientation and training of this system throughout the workforce and ongoing education enhancements and refinements must continue. Much of this will be accomplished through a heightened awareness and broad focus on emergency preparedness at each of the institutions. Drills conducted at each of the PHS institutions already have demonstrated the effectiveness of the HEICS system that has led to a clarity of structure, roles and responsibilities, and communication. Several "real" events including participation in receiving institutions for a burn, a mass-casualty incident, and an internal security event at one of the institutions, have required implementation of the HEICS system. Additionally, hospital accrediting agencies, such as the Joint Commission for the Accreditation of Healthcare Organizations, have issued statements and specific recommendations that disaster plans "have an all-hazards command structure that links with the community's command structure", and that a hospital "integrate the organization's role with community-wide emergency response agencies (including the identification of who is in charge of what activities and when they are in charge) to promote interoperability between healthcare organizations and the community".[7] Implementation of HEICS fulfills this recommendation.

Again, clarity of hierarchy, flexibility to address the specifics of a given situation, and ease of communication enhanced the management of these incidents. Regular component drills of each institutions' respective plans while using HEICS will be an important tool to achieve full education, understanding, and adoption HEICS in the institutions that comprise the Partners HealthCare System.

References

1. Firescope Website. Available at www.firescope.org. Accessed 01 August 2004.
2. Hospital Emergency Incident Command System, San Mateo County Health Services Agency Emergency Medical Services, Version 3, Volume I, June 1998.
3. Auf der Heide E: Disaster medicine, disaster planning, Part II. *Emerg Med Clin N Am* 1996;14:453–480.
4. Waeckerle J, Seamans S, Whiteside M, *et al*: Emergency medical services: Executive summary: Developing objectives, content, and competencies for the training of emergency medical technicians, emergency physicians, and emergency nurses to care for casualties resulting from nuclear, biological, or chemical (NBC) incidents. *Ann Emerg Med* 2001;37:587–601.
5. Lewis CP, Aghababian R: Disaster medicine, disaster planning, Part I. *Emerg Med Clin N Am* 1996;14:439–453.
6. Kennedy K, Aghababian R, Gans L, Lewis C: Triage: Techniques and applications in decision-making. *Ann Emerg Med* 1996;28:136–144.
7. Joint Commission on Accreditation of Healthcare Organizations: 2005 Critical Access Hospitals Standards. Management of the Environment of Care.

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Appendix A—HEICS didactic session curriculum (HazMat = hazardous materials; HEICS = Hospital Emergency Incident Command System; ICS = incident command system)

1. Introductions

2. Disaster Drill Video; HazMat Incident

3. ICS Overview

4. HEICS

5. ICS for hospitals

6. Section and Command Staff positions
- a) Mission and reporting relationships
- b) Integrating with local Emergency Management Agencies

7. Workshop Session I
- a) Objectives
  - (1) Consider criteria in initial activation of emergency management plan
  - (2) Review management staff call back plan
  - (3) Identify key responsibilities of each position

8. Review

9. Support Staff positions
- a) Mission and reporting relationships
- b) Objectives

10. Workshop Session II
- a) Objectives
  - (1) Consider criteria in initial activation of emergency management plan
  - (2) Review management staff call back plan
  - (3) Identify key responsibilities of each position

11. Review

12. Other HEICS elements
- a) Codes
- b) Vests
- c) Forms

13. Homework
- a) Identifying members of HEICS Organizational Chart
- b) Integrating HEICS into your emergency management plan

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