Chapter 6

Establishing Strategies for Managing Safety and Security

The safety and security of patients is the prime responsibility of the organization during an emergency. As emergency situations develop and parameters of operability shift, organizations must continue to provide safe and secure environments for their patients and staff. Security is critical to enable the other components of an organization to operate in the way in which they are intended. Security staff must be present to ensure that staff can continue to carry out that plan, even if, for example, crowds begin to get agitated. They must also be prepared to protect the organization's staff and patients in the case of a disaster that results in a loss of social order, as occurred in the aftermath of Hurricane Katrina. In situations such as this, there might not be enough law enforcement personnel available to watch over the organization.

The third critical area of emergency management is discussed in this chapter and concentrates on a standard (as seen in Sidebar 6-1, below) focusing specifically on safety and security during emergencies.

Managing Safety and Security

Controlling the movement of individuals into, throughout, and out of the organization during an emergency is one of the most fundamental aspects of safety and security. The priorities of patient care and maintaining the facility cannot be accomplished without establishing internal security and safety operations. As part of emergency management planning, organizations must determine what types of security and safety issues are likely to arise. For example, organizations

Sidebar 6-1.
Applicable Emergency Management Standard

The organization establishes strategies for managing safety and security during emergencies.

This standard requires organizations to do the following:

- The organization establishes internal security and safety operations that will be required once emergency measures are initiated.
- The organization identifies the roles of community security agencies (police, sheriff, National Guard) and defines how the organization will coordinate security activities with these agencies.
- The organization identifies processes that will be required for managing hazardous materials and waste once emergency measures are initiated.
- Regarding hospitals and critical access hospitals only, the plan identifies means for radioactive, biological, and chemical isolation and decontamination.
- For long term care settings, the organization identifies residents who might be susceptible to wandering once emergency measures are initiated.
- The organization establishes processes for the following:
  - Controlling entrance into and out of the health care facility during emergencies
  - Controlling the movement of individuals within the health care facility during emergencies
  - Controlling traffic accessing the health care facility during emergencies

Security Planning

- Does the facility have the ability to lock down so that entry to and exit from all parts of the facility can be controlled?
- Have steps been taken to minimize and control points of access to and egress from buildings and areas without using lockdown procedures?
- Is a plan available to control vehicular traffic and pedestrians?
- Have arrangements been made to meet and escort responding emergency service personnel and vendors?
- Does the facility have the ability to communicate with individuals immediately outside the facility in the event lockdown is initiated?
- Does the plan designate how people will be identified within the hospital (for example, hospital staff, outside supporting medical personnel, news media, clergy, visitors)?
- Can staff gain access to the organization when called back on duty?
- Have provisions been made for internal traffic that allows patient movement through corridors and staff movement throughout their areas?
- Have egress routes for patients and staff been provided for evacuation purposes?
- Will elevators be staffed and controlled?
- Has elevator usage been prioritized (for example, casualties, supplies)?
- Have movement routes been designated within the organization and have traffic-flow charts been prepared and posted?
- Have arrangements been made for both vehicular and foot traffic to enter and exit the hospital premises?
- Have the following been established?
  - Uninterrupted flow of ambulances and other vehicles to casualty sorting areas or emergency department entrances
  - Access and egress control of authorized vehicles carrying supplies and equipment to a dock area
  - Authorized vehicle parking
  - Direction for authorized personnel and visitors to proper entrances
- Have arrangements been made for police support in maintaining order in the vicinity?
- Does the plan include a method to impact the management of vehicle and people convergence upon the hospital?

Source: Adapted from Association for Professionals in Infection Control and Epidemiology, Center for the Study of Bioterrorism and Emerging Infections: *Mass-Casualty Disaster Plan Checklist: A Template for Healthcare Facilities.* http://bioterrorism.slu.edu/bt/quick/disasterplan.pdf (accessed Mar. 10, 2008).

should make specific provisions for how and when the facility will be locked down when the emergency operations plan (EOP) is put into action. The bottom line is that security must be assured, or patients will not be able to receive the care that they require or staff might be unwilling to stay.

Coordinating with Security Agencies

In anticipating security issues, organizations should coordinate with the local community, such as the local police department, before the onset of an emergency. The health care organization should express its security concerns and identify the capabilities of community resources to support those concerns. For example, a hospital might assume that it can count on assistance from the local police department during an emergency. The police department might not, however, be able to offer any assistance or the level of assistance desired. Understanding what support is available will allow the organization to make more effective plans for security during an emergency.

In addition to the police department, this new requirement for coordination with community security agencies includes other groups, such as the sheriff's department and National Guard.

Organizations should also consider the need for collaboration with security agencies for other purposes. For example, travel access on roads or bridges could be restricted by security agencies during a disaster. Hospitals and Medicare-/Medicaid-based long term care facilities that identify the roles of community security agencies will better understand how to coordinate their own security measures, as well as how to allow for transportation of staff, patients, and essential supplies to and from the facility.

Managing Hazardous Materials/Waste

A new requirement in the emergency management standards is for organizations to identify the processes required for managing hazardous materials and waste when emergency measures are initiated. This requirement builds on existing environment of care standards related to managing hazardous materials and waste risks, recognizing that the special handling required of these materials and the need to minimize the risk of unsafe use and improper disposal are particularly important to consider during emergency conditions. For example, during an evacuation is not the time to begin thinking about what to do with chemicals, chemotherapy materials, radioactive materials, and medical wastes such as sharps, gases, and so forth. Or, if decontamination is required, how will the water be collected and disposed of?

Questions to consider might include the following:

- What types of hazardous materials and waste exist within the organization?
- What are the specific locations of these hazardous materials and waste?
- What are the normal procedures for securing these items?
- What are the normal procedures for disposing of these items?
- How will those processes need to vary in the event of an emergency (either internal or external)? For example, what if waste cannot be collected on schedule by waste handlers?
- What would the process be in the event of evacuation?

Isolation and Decontamination

Hospitals planning for security and safety during emergency situations must also consider radioactive, biological, and chemical isolation and decontamination. Contaminated patients must be segregated or isolated, and decontamination procedures to treat victims and protect other patients and staff must be quickly implemented.

An organization can take two broad approaches to isolation: The first is to outfit health care workers with personal protective equipment, effectively isolating the worker from the patient. The other approach is to isolate the patient from the worker. Hospitals and long term care organizations should conduct assessments, in advance, of current facilities and capabilities for airborne isolation. Organizations should evaluate whether rooms on certain units or even a nursing unit can be converted to negative pressure. Organizations should also evaluate mechanical and ventilation systems to support isolation and separation of air intake and exhaust in as many rooms as possible, if required. If the facility is planning any new construction, the ability to use some or all of the rooms for isolation should be considered.

Local Agency Coordination Issues

- What role will local law enforcement agencies play in assisting the organization during a communitywide incident?
- What role will local law enforcement agencies play in assisting the organization during any event—communitywide or otherwise—that exhausts the organization's security resources?
- How will the organization's incident command communicate with local agencies during a communitywide incident? What backup communication systems are in place?

Source: Joint Commission Resources: *Guide to Emergency Management Planning in Health Care.* Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations, 2002.

Be Prepared Tip

Security of Hazardous Materials

Ensure the security of biohazard and radioactive materials in the laboratory and elsewhere. Consider placing locks on all freezers and incubators that contain biohazard materials. Forward any suspicious inquiries regarding such materials to security personnel so that they can be in touch with external authorities as appropriate.

In the case of decontamination requirements, which are applicable only to hospitals and critical access hospitals, many hospitals have written into their EOP that the fire department will be responsible for decontaminating casualties. The challenge with this is that up to 85% of the victims of an incident involving hazardous materials show up at the hospital without having undergone any prior decontamination.[1] For example, in small incidents, such as agricultural or garage accidents, individuals will present themselves at the hospital emergency department (ED) without having called the fire department, and the hospital will need to perform appropriate decontamination. Because of this circumstance, hospitals should be prepared as part of their emergency management plans to assume responsibility for decontaminating these victims. Hospitals should continue, however, to coordinate with the community's local HAZMAT response team, which might have portable decontamination units and prefer to go directly to the site rather than risk spreading the contaminants to other sites, such as the hospital.[2]

Be Prepared Tip

Facility Security

Organizations should have a plan to secure the facility within a few minutes of an internal or known external biological or chemical incident in order to protect current patients, the facility, and staff. Entry should be permitted only to noncontaminated staff and decontaminated care recipients.[1]

Reference

1. *The Israeli Master National Emergency Standard Operating Procedure for Hospitals* manual.

The decontamination process involves isolating the contamination; decontaminating and treating patients; protecting staff, other patients, visitors, and the facility itself; and reestablishing normal service. The decontamination area should be a location with strictly controlled access. The best location for a decontamination area is outside the main facility because outdoor decontamination is preferable to protect staff, equipment, and other patients from becoming contaminated. Decontamination areas can be located inside the hospital as long as they have a direct entrance from the outside and a separate ventilation system that exhausts directly to the exterior of the building. Whatever type of decontamination facility is chosen, an organization should document its decontamination strategies in its EOP.

Preventing Wandering

For long term care facilities, a new component of the emergency management standards is the requirement to identify patients who might be susceptible to wandering when emergency measures are initiated. Because many nursing home residents have a loss of cognitive ability, it is essential to determine which patients will require help to prevent wandering during the chaotic atmosphere that typically accompanies an emergency. The risk for wandering increases when residents become upset or agitated or when they face stressful situations.[3] By identifying those individuals who might be prone to wandering, organizations can implement security precautions to keep these individuals in specific, safe locations during the emergency.

Controlling the Facility

An organization should determine the types of access and movement that will be allowed in the facility. This includes staff, patients, visitors, emergency volunteers, vendors, maintenance and repair workers, utility suppliers, and other individuals when emergency measures are initiated. Controlling access will likely include instituting a lockdown and then designating an entry point or points for staff and physicians, as well as for others who need access to the building. In hospitals, locating security staff in the ED to ensure that only authorized personnel can gain access is also important. If security staff are limited in numbers, organizations might wish to consider using fencing to block access to (but not egress from) certain parts of the facility.

Although the organization should have processes in place for limiting access to the facility to authorized personnel only, it is essential that those who are authorized are able to enter the facility quickly. To accomplish this, organizations should have procedures in place to identify care providers and other personnel during emergencies (*see* discussion in Chapter 7). This is important because if essential staff do not have some sort of identification, they might not be able to get through security roadblocks set up outside the organization.

One method to ensure that staff members can enter the facility could be to assign a security person to a check-in area outside any security perimeter that blocks access to the organization. That person would be given preprinted generic plastic badges and a list of staff and employees who are eligible for the badges.[3] Employees would be required to present picture iden-

Be Prepared Tip

Additional Security Staff

Organizations should have a contingency plan for hiring additional security staff as the normal number of on-duty security staff might be insufficient during an emergency. Options include contracting with private security officers or off-duty police officers. In addition, administrative and/or clinical staff could be assigned to provide a visible presence within the facility, such as at the entrances. All of this must be preplanned.

Be Prepared Tip

Crowd Control

If a crowd does form, the first step in gaining control is to establish a perimeter. Security personnel can also help to prevent crowds from forming by having clear information about how and where to direct patients and members of the community who might seek food or shelter from health care organizations during a disaster.

Coordinating with the Media

Several aspects of safety and security management are related to media planning considerations. For example, an event that requires isolation or decontamination of patients will be of interest to the media and to the community at large. By providing accurate, regularly updated information about the circumstances requiring isolation or decontamination, the organization can keep the public abreast of the situation. This will help to prevent rumors or speculation and will provide opportunities to inform the public about what, if anything, they need to do to stay safe and healthy.

Providing information about the situation as it unfolds could also be helpful in security issues such as crowd control. Supplying phones numbers to the public for information about their loved ones; preparing injury and casualty lists; and coordinating with the chaplaincy, social work departments, and the Red Cross on family notification can prevent large numbers of visitors from arriving at the facility and prevent those who do arrive at the facility from becoming agitated by a lack of information. This effort should be coordinated with community and state agencies and should be done to ensure that information provided is consistent regardless of which organization is providing the information.

tification so their name could be compared with the list. In addition, if an individual cannot physically be present at an entry point, video surveillance cameras can be used to monitor the access of individuals. Requiring personnel to wear photo identification, temporary badges, armbands, vests, or helmets could be helpful in distinguishing them from unauthorized individuals trying to gain access to restricted areas. Personnel might even be required to use swipe cards to gain access.

To prevent crowds from forming, organizations should have a system in place for organizing reporting stations, data collection points, traffic monitors, and waiting areas so that individuals can quickly be directed to the appropriate area. Organizations might even consider limiting visitors to only the immediate family.

For the individuals within the facility, organizations must consider how to control movement during emergencies. For example, organizations that have experienced structural damage would want to ensure that patients, visitors, or unauthorized staff, do not enter these potentially dangerous areas. Other situations, such as civil unrest, infectious outbreak, or biological attack, also demand similar considerations.

This process could involve a more localized method to limit access to the organization as a whole. For example, identification could be required not just at entrances, but at checkpoints within the organization. Or, electronic access control or other locking mechanisms might be used. Organizations should also post signs at various points in the facility to guide staff and other individuals. Sites for posting signs include exits on each floor, entrances and exits for each department, inside elevators, and so forth.

The final area that falls under security is traffic control. Ambulances, other emergency vehicles, and authorized nonemergency vehicles that provide supplies all must have unimpeded access to the organization. Consequently, the organization should have a plan to control access and egress of authorized emergency and nonemergency vehicles.

Case Example: A Lockdown Order During an Emergency

The Minnesota bridge collapse that occurred shortly after 6 P.M. on Wednesday, August 1, 2007, sent at least 50 vehicles and their occupants into a tangle of steel and asphalt that tumbled into the Mississippi River below. More than eight area hospitals were involved in the medical response to the disaster, including two Minneapolis medical centers that were particularly instrumental in providing care to the victims. Hennepin County Medical Center and the University of Minnesota Medical Center–Fairview, the closest in proximity to the site of the incident–to a great degree relied on their participation in emergency management exercises to adapt to the many challenges this tragedy presented.

Preparing for Multiple Emergencies

Joseph Clinton, M.D., Chief of Emergency Medicine at Hennepin County Medical Center was on his way to dinner with his wife at the time of the collapse. "I received a call from our on-duty emergency department (ED) physician who said, 'This looks like the real thing,'" recalls Clinton. "On my return to the hospital our team quickly began establishing emergency response procedures."

In this case, with Hennepin located less than a mile from the bridge, those procedures included sending a team of trained medical responders to the site to set up an incident command center. Working with other emergency personnel and even volunteers assisting in initial search and rescue efforts, Hennepin's team of physicians and paramedics provided care for the walking wounded and helped to direct the emergency transport of critical patients. "It was a chaotic scene, but in our [emergency management] exercises we have worked on bringing organizational structure to disastrous situations," says Clinton.

As a Level 1 trauma center, two to three times a year Hennepin participates in communitywide exercises of various types. "Our closest scenario to this event was a building collapse with 25 to 100 victims," says Clinton. "Like the bridge collapse, this was essentially a multiple emergency because we were dealing with many different types of injuries and with different elements that caused injury. Within the hospital and in cases where personnel respond on site, the key to managing an emergency is being prepared to make critical decisions. It's those exercises that equip you with the knowledge to make smart decisions."

This multiple-event approach to emergency management planning coincides with the Joint Commission's revised standards, which conclude that it is not sufficient to require organizations to plan for a single-emergency event; rather, they should be able to demonstrate sufficient flexibility to respond effectively to combinations of escalating events. The standards, which went into effect on January 1, 2008, emphasize a "scalable" approach that can help organizations manage the variety, intensity, and duration of disasters that can affect a single organization, multiple organizations, or the entire community. The standards describe specific operational requirements for health care organizations in planning a flexible response.

Adopting Flexible Emergency Practices

In the case of the University of Minnesota Medical Center–Fairview, the flexibility of its response evolved in the midst of a fluid situation and was reliant upon the Mock Trauma Team Activations it had recently coordinated. Donovan Taylor, R.N., Director of Trauma Service at Fairview, was headed home from the medical center when he received a call from the ED. A medical resident of Fairview in a high-rise above the bridge had called in to alert the organization to the unfolding emergency. Located just a block from the bridge, Fairview activated its Code Orange emergency operations plan (EOP), which included calling in additional staff and locking down the facility to limit patient access to a single entryway.

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Case Example: A Lockdown Order During an Emergency, *continued*

Unlike Hennepin County, Fairview is not a trauma center, but a transplant hospital. Its emergency staff, however, had spent the previous six weeks training and participating in Mock Trauma Team Activations as part of its ongoing preparation to become a Level II trauma center in 2009. "My new position is to help coordinate the pursuit of a Level II adult and pediatric trauma center," says Taylor. "Our exercises in the weeks before the incident included both adult and pediatric emergency scenarios with an unexpected number of trauma patients." the Joint Commission's standards require organizations to evaluate the performance of their EOP during planned exercises. "The (standards) also stress the importance of planning and testing response plans for emergencies during conditions when the local community cannot support the health care organization," says John Fishbeck, R.A., associate director, Division of Standards and Survey Methods, The Joint Commission.

As the core teaching hospital of the University of Minnesota Medical School, Fairview is made up of two campuses—its University campus on the east bank and its Riverside campus on the west bank of the Mississippi River. "It was our University campus on the east bank that received 25 patients from the collapse, while our west bank campus did not see any of its victims," says Taylor. Typically, trauma victims would be sent to Hennepin County Medical Center, which is also located on the west side of the river. "With the whole structure collapsing, responders had no way to get victims on the east bank across to Hennepin or our Riverside facility," says Taylor. Volunteers escorted some victims to the Fairview University campus. In one case, firemen commandeered a truck and drove victims to the medical center.

As victims arrived, some with spinal fractures and others with crushed lower extremities, Fairview's incident command post was notified that its initial lockdown order had not been accomplished. "Our information services (IS) and security dispatch are located in our Riverside campus," says Devin Mellors, emergency management specialist, Office of Clinical Affairs at Fairview. "We recognized that the lockdown had not gone through because the bridge collapse severed some of our communications lines with that campus. Through both radio and verbal commands, we quickly initiated an internal lockdown of the facility to ensure one access point."

With lockdown secured, Taylor recognized the need to bring the order and structure of a trauma unit to the frenzied atmosphere. Having honed his triage skills in the U.S. military, where he worked in the field with special operations units in the Middle East and elsewhere, Taylor and trauma surgeon Jeff Chipman, M.D., gathered staff in the midst of the crisis and began dividing them into teams. "We needed to be sure the expertise of our staff was evenly divided and focused on specific needs," says Taylor. The teams included at least one physician and two nurses, as well as members of ancillary departments such as lab and x-ray. Trauma teams provided care to the most severely injured, another team tended to those less severe, another was responsible for registering and accounting for new patients, and one team concentrated on existing patients at the medical center. "It all took only about 30 seconds to coordinate," says Taylor. "This team approach was just what we had worked on in our emergency trauma exercises, so staff members immediately assumed the roles they had practiced, and the emergency room quickly came under control."

Applying Insights from Emergency Experience

At Hennepin County Medical Center, similar measures were already in place. Despite its experience with trauma incidents and operations, its debriefing sessions with other local agencies and organizations continues to examine lessons learned—including the effectiveness of its communications systems during an emergency event.

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Case Example: A Lockdown Order During an Emergency, *continued*

"Fortunately, we were able to deal with the great volume of calls from civilians inquiring about the well-being of family and friends immediately after the collapse before redirecting those calls to a family reunification number operated by the Red Cross," says Mark Lappe, Director of Safety, Security, and Emergency Preparedness at Hennepin County. "Although our emergency radio lines and internal lines in the hospital remained open at all times, we are working with the Red Cross to more quickly establish a family reunification line in the case of an emergency."

As discussed in Chapter 4, Joint Commission emergency management standards now broaden the requirements for effective communication to include ongoing communication with staff, the public, and the community. "It also encourages organizations to strive for standardized communication both internally and externally," explains Fishbeck.

Since the bridge collapse, Fairview has dealt with its communications issues by adding a backup server and a duplicate security application on its University campus. "We have backup operators' consoles and 800 MHz radios on both campuses as well so that if we lose telephone lines we are able to communicate overhead," says Mellor. "Our debriefings on the emergency response have also been incorporated into our monthly Memoranda of Understanding meetings with 29 other hospitals in our area." Both Fairview and Hennepin County are working on Web-based systems that would more efficiently inform and direct staff that are outside of their facilities when an emergency occurs.

According to Taylor, Fairview's response to the bridge collapse highlights essential steps command and control should take upon learning of an emergency event, including performing the following actions:

- Implement the plan of care for current patients, establish teams for incoming patients, and lock down the facility in order to track new patients.
- In addition to the incident command, in the ED have a medical control person (an M.D.) and an operational control person (an R.N. with ED knowledge) coordinate care as quickly as possible while ensuring that they have necessary emergency resources such as equipment, medication, and an organized personnel response.

"The mindset here at Fairview is that it will happen again," says Taylor. "Even a car accident with four people injured can cause stress to an organization's operations." As the medical center continues to improve on programming aimed at gaining approval as a Level II trauma center, its staff has already gained insight and experience that will help chart their way forward.

Source: Reprinted from Joint Commission Resources: The Minnesota bridge collapse. *Environment of Care News* 10:12, Dec. 2007.

For Additional Assistance

Organizations seeking information on security issues related to bioterrorism, hazardous materials, and related topics can find references and resources online. These include the following:

- Institute for Biosecurity—Saint Louis University School of Public Health, http://bioterrorism.slu.edu/
- The Centers for Disease Control and Prevention, Public Health Emergency Preparedness and Response: http://www.bt.cdc.gov
- Johns Hopkins University School of Public Health and Medicine, Center for Civilian Biodefense Strategies: http://www.hopkins-biodefense.org
- The Environmental Protection Agency provides a four-hour decontamination program that can be offered without cost. For more information, visit the agency's Web site at http://www.epa.gov.
- The HazMat for Healthcare Web site, http://www.hazmatforhealthcare.org, offers four four-hour training modules for hospitals.

References

1. Briggs S.M., Brinsfield K.H.: *Advanced Disaster Medical Response: Manual for Providers.* Boston: Harvard Medical International Trauma & Disaster Institute, 2003, p. 35.
2. Joint Commission Resources: *Guide to Emergency Management Planning in Health Care.* Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations, 2002, p. 49.
3. Joint Commission Resources: Emergency management in long term care, *Environment of Care News* 9(9):7, 2006.