Disaster Planning for Health Care Facilities

By Pat Moore, CBCP FBCI

We all know that no one suffers a disaster in isolation. Nowhere is this more obvious than when a disaster affects a health care facility, for it exists within and for the community in which it is based. Whether or not it is directly involved, in order to respond appropriately the health care facility must know what is expected of it and what it can expect from the community.

Below are specific facility recovery planning issues relevant to active treatment hospitals, emergency clinics, nursing homes, chronic care facilities, residences for the elderly, and other like institutions.

Regardless of the type of disaster, the health care institution's task is to enhance survivability of its critical health care and patient management functions through the proper planning and protection of its facilities, equipment, data, telecommunications, and personnel resources. In today's business world - where business needs dictate reducing operating costs, managing shrinking capital resources, meeting the growing and varied systems needs of different departments, maintaining trained professionals in a constantly downsizing economy, keeping systems up 100 percent of the time, stressing quality, competing in the health care market, and meeting new regulations addressing the "environment of care" - continuity of operations planning is key to recovering from a major interruption of services.

First Steps
A health care facility must first ascertain the plans and response capabilities of emergency services and other like facilities in the community. This will ensure effective cooperation when required. The police, fire chiefs, and ambulance service/EMS manager should also have a copy of the facility's plan for reference, and key people within these services should be on the facility's list to receive updates of the plan that are relevant to them.

An inventory of community resources, both human and physical, should be prepared, and the necessary contacts should be made to ensure their availability even after hours. Any necessary contracting agreements should be included in the health facility's disaster plan, along with the details about the commitment to the facility during an emergency, along with a list of 24/7 current contacts.

Other information that should be gathered in the pre-loss planning process includes management staff and departmental managers, evening and weekend numbers, residential numbers (or a twenty-four hour switchboard, answering service, and/or paging system), and a means for providing a rapid bed census at neighboring facilities to establish immediately the available capacity for accepting patients who may be evacuated from other facilities with minimal prior notice.

In addition to the normal elements of a hazard/risk assessment unique to the individual facility (it geographical, age, historical, potential, and off-site risks), there are risks generic to all health care facilities. Such risks include fire, evacuation, relocation, mass casualty, and evacuated patient reception. Relevant accreditation standards such as JCAHO address these in detail and should be reviewed thoroughly on a regular basis. The planning process involves identifying the potential for these risks, quantifying the risks, and developing a strategy to deal with them.

Plans must also be put in place to identify roles of nonpatient care units. For example, maintenance personnel may be required to move furniture from a lobby or assist security, and dietary staff may be required to prepare extra food for other employees working beyond normal shifts or in response to an extra influx of patients. Long-term care, chronic care, and mental health facilities should prepare for addressing casualties and emergency treatment when there are no other accessible alternatives.

Facility Continuity of Operations Issues
Operating on a 24/7 schedule, these mission-critical facilities require proactive involvement and open dialogue between facility management, facility information systems and network managers, critical department senior management, and continuity of operations personnel. Every point of failure in a health
care institution must be backed up, down to the individual circuit breakers, and up to duplicate chillers and power generators. These facilities must be flexible enough to swing power loads and functions among various components so the whole system doesn’t crash. The proper balance between automation and human intervention must be established.

In addition to dealing with missing patients, evacuation of clinics (e.g., ICU), ensuring continuity of blood supplies, continuity of quality patient care, maintaining isolation areas, complying with mutual aid agreements, loss or unavailability of specialized workforce, protection of vital records, and legal liability issues, facility loss control issues play a major role in continuity of operations planning for this industry. These issues include loss of air-conditioning; cooking capabilities; electric, gas, water, and sewerage services; elevator service; telephone and internal communications service, and supplies.

**Equipment Issues**

Total business recovery assumes the patient management and care begin to suffer immediately upon manifestation of a disrupting event. A system’s capability to transfer electronic patient information will quickly degrade. For the hospital to effectively and efficiently recover from a disruption to its information services, executive management must make the decision and provide the funding for defining what is most critical to the hospital. Planning for increased networking requirements and capabilities should therefore take into consideration equipment placement and physical network topology. Routing configurations should be documented, diversely routed, and protected.

Equipment should be placed in an area free from combustible materials, water damage, static electricity, electromagnetic interference, etc. Serious considerations should be given to the installation of reserve power generators, uninterruptible power supplies (UPS), water/moisture detection systems, and static control flooring or pads. Hospital management must also contemplate the working conditions in which the hardware is located. Equipment must be able to function in an environment that is constantly being cleaned with antiseptic materials.

In the event of a disaster, the proper cleaning and restoration protocols must always be used to ensure not only the recertification and reliability of the equipment housed in the facility affected by the fire, flood, contamination, etc., but the entire environment of care itself.

**Additional Considerations**

Additional pre-planning considerations should include (at minimum) the following: identifying mitigation steps, environmental health and safety planning, vital records recovery, in-facility mass hyperthermia, highly communicable diseases, planning for maximum casualties, ambulance service liaison, alerting staff, call-in of off-duty staff, use of volunteers, redefining patient areas, redefining staff roles, triage of disaster casualties, uniform disaster codes, industry regulations, mass fatalities, temporary morgue, and pre-positioning and contracting of resources.

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**About the Author**

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REFERENCES

Types of Health Care Emergency Plans

There are four general types of emergency or disaster plans for health care facilities: evacuation, relocation, isolation, and reception.

Evacuation
There are two types of plans within this category: Precautionary plans are considered when an external event begins to expand and requires removal of patients to some other location, e.g. rising floodwaters, an approaching forest fire, or train derailment with possible release of toxic fumes. Crisis plans occur when the evacuation must be undertaken immediately in the face of a real and present danger, e.g. rapidly spreading fire within the institution itself. Patient charts, medication, and personal belongings must be matched up with the patient in the time available.

Relocation
If the disaster precludes the reoccupation of the patients to the institution, a relocation plan should include (at minimum) the following:

1. Names of facilities to receive the patients, including prior written agreements to this affect
2. Prearranged contacts at each facility who can ensure prompt reception even during off-hours
3. Names and phone numbers to call at any hour to obtain a current bed census at the various receiving facilities to determine potential accommodations capability
4. Nearby interim locations (e.g., church halls, school gymnasiums)
5. Means for transfer of patients at any hour to designated receiving facilities
6. Means to record which patients are transferred to which facilities
7. Means to rapidly collect and transport patient charts, records, and medications to the receiving facilities
8. Procedure whereby the evacuated facility's staff will assist with their patients at the receiving facilities
9. Means to advise next of kin as well as the personal physicians of the patients relocated
10. Additional guidelines for acute care, postpartum infants, and chronic care settings

Isolation
The key to a sound isolation plan is the ability to allow the facility to function within the limits of its own resources without external support: This includes rationing consumables early, tailoring the generic isolation plan to the specifics of the situation, and early identification of the services necessarily curtailed (e.g. recreational activities).

It is essential that the facility be able to continue the following without external intervention or support: heating/ventilation, provision of drinking/cooking water, provision of electricity for essential lighting and medical appliances, and refrigeration for food, medication, and the blood bank.

Reception
The reception plan should call for immediate initiation of a reception protocol that designates a specific staff position to serve as the facility's reception officer. Patients may arrive as a group, often without charts or accompanying staff. Therefore, a system is necessary to ensure that latent, preexisting medical problems are not overlooked.

One system might be for patients to arrive through one entrance, where a registered nurse or physician, if available, makes a rapid and preliminary screening of each (almost a form of triage) to identify any preexisting conditions or in-transit relapses that require prompt intervention. Patients who appear to be stable are grouped in one area to await escort to designated accommodations within the facility. Patients who are in questionable condition are directed to another immediately adjacent area where a second nurse and/or physician perform a more detailed assessment. These patients are either designated as stable and returned to the group awaiting accommodation or are sent for appropriate indicated care (either within the facility or to another facility).

A predesigned form can facilitate the tracking of these patients, as well as the recording of essential information such as the patient's name and number (if any), location assigned in the facility (wing, room, etc.), facility from which evacuated, and medications/patient records received. Some means of rapid
identification is necessary for those patients who arrive without ID bands or charts and are not sufficiently
cognitive to identify themselves. A felt pen can be used to write a number on the back of their hand, and this
can provide a rapid identification mechanism when sequentially keyed to the list created on entry to the
facility.

Other points to be dealt with in the reception plan include procedures for the discharge of inpatients to their
homes or to the care of relatives, and the doubling-up of patients in preparation for the reception of
evacuated individuals.