

# To protect in place or evacuate: that is the question

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*Hospitals may not have a choice when a disaster dictates evacuation or protecting the patient population in place. The authors, consultants in emergency readiness, advise preparing for either eventuality and discuss what may be involved in each.*

The decision-making matrix for dealing with today's all-hazards events has dramatically increased in complexity, in part due to the introduction of an array of terrorist threats as well as increases in the numbers and frequency of natural disasters. The evolving national strategy for Homeland Security has identified seventeen (18) economic sectors which face unique challenges in dealing with potential hazardous occurrences. Of these sectors, the Public Health and Healthcare Sector bears the heavy burden of responding directly or indirectly to all threats affecting every other sector.

During the latter half of the twentieth (20th) century, the nation and its healthcare providers were faced with Weapons of Mass Destruction (WMD), most notably nuclear weapons. Such attacks would provide little or no advanced notification to hospitals and they

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would have little or no choice in the manner in which they would respond to these events. Frequently the resulting post-attack radioactive fall-out dictated “a protect in place” response. Readiness required the stockpiling of essential supplies to sustain the organization’s stakeholders for variable lengths of time.

### **THE 21st CENTURY THREAT ENVIRONMENT**

Responding to the 21st century threat environment with its triple threats of evolving infectious diseases, more robust natural disasters, and increasing evidence that healthcare facilities are seen as soft and desirable targets for both domestic and international terrorism, leaves healthcare decision-makers with new and novel challenges. Organizational survival will depend on its ability to respond with alacrity and execute pre-planned, well-designed, and customized actions to defeat a host of all-hazards threats.

Segregation of hospital populations into age- and condition-specific domains (e.g., adult or pediatric general acute care; psychiatric adult or children/youth; orthope-

dics, cancer, eye, burn, bariatric, etc) has resulted in higher levels of inpatient acuity requiring advanced life support systems and other technologies that make the choice of successful evacuation more complex. For special populations, such as critically-ill neonates, children, and bariatric surgical patients, the decision tree is further stressed by the reality that evacuation of these populations cannot be accomplished without the presence of medical caretakers, oftentimes 1:1, and complicated support technologies and may have to address the presence of family members who also require evacuation.

### **WHEN EVACUATION MAY NOT BE A VIABLE OPTION**

Current federal mass evacuation assets, which must be alerted five (5) days before the advent of a disaster, are not configured to support single digit evacuations and will be deployed for mass evacuations. Depending on the time frame of the onset of a disaster, evacuation of pediatric and other special care facilities may not be a viable option. Knowing this, it is then incumbent upon

the specialty hospital to plan, prepare, decide, and execute its own evacuation plan.

Further, most evacuation plans fail to factor in “surge patients” into their plan; and the ever present litigious threats to real and perceived medical and administrative misadventures must be considered. “If you evacuate and nothing happens but the deaths of fragile patients”, your exposure to legal risks increases significantly. Protection in place without sufficient logistics to support such a decision poses a high-risk decision with serious consequences.

### **THE 96-HOUR STANDARD: A DREAM MORE THAN A PROMISE?**

The industry’s “just in time” supply chain model has received broad industry acceptance. Valued for its cost effectiveness, it has become an embedded practice. The intended or unintended consequence of this practice, however, has cancelled out onsite inventories so vital to meeting any measure of sustained performance in an all-hazards response. Although federal and Joint Commission supported doctrine

requires that hospitals be prepared to support their organizations for the first ninety-six (96) hours following all-hazards events, the effects of restricted supply chains have made this more of a dream than a promise.

The impact on vulnerable special populations, particularly, infants and children is significant. Availability of age- and condition-appropriate equipment and supplies from pre-positioned federal stockpiles is spotty at best. The healthcare industry has been severely criticized for its failure to protect children from medical misadventures due to medication management errors. This, in an environment with the advantage of pediatric unit dose administration, stokes the concerns of many who realize that the bulk medication supplies from federal stockpiles are not calibrated for pediatric use. Additionally, most state and federal stockpiles do not stock emergency supplies in pediatric sizes (e.g., infant and pediatric ambu masks, pediatric equipment (respirators)).

Regardless of the type of facility, if hospitals choose to “protect in place,” they must either increase their inventories and/or have identified and tested com-

munity support resources in place. These resources must be committed through mutual aid agreements designed to enhance the local healthcare system's capacity to maintain a "protect in place" response, with specific emphasis on pediatric and other special-care populations. Any mutual aid agreement must be reviewed periodically to prevent oversubscription of supplier resources. Additionally, facility issues, such as security, power, water, medical gasses and other vital resources, must be addressed to ensure the operational viability of the hospital throughout an adverse event.

### **IF "EVACUATION" IS THE CHOICE**

If "evacuation" is the choice, hospitals must include alternate care site(s) selection and surge security capabilities in their plans to duplicate existing operations and have confirmed and response-tested arrangements. Within the "evacuation" choice, there are choices. Geography, nature of the threat, proximity to other healthcare facilities, availability of supplies and support personnel, transportation and

time limits may determine choice of destination.

### **Evacuation to another healthcare facility**

Evacuation to another healthcare facility is preferred. Successful evacuation planning starts well before the event occurs. Identifying alternative care sites should be accomplished as part of the organizations emergency operational planning process and based upon threats identified in a hazard vulnerability analysis. Ideally the alternative care site would be a similar type hospital that has adequate surge capacity to receive the evacuated patients. The considered use of other evacuation sites, such as shuttered, or partially shuttered facilities, must be carefully assessed to ensure that any receiving facility has the capability to provide effective medical treatment in a safe and secure environment. Issues such as legal, insurance, and risk management are just a few that should be addressed. Shuttered hospitals may or may not be viable choices; and if considered, the organization must factor-in the need for significant advanced preparation

to safely rehabilitate the site.

Partially shuttered hospitals or medical centers provide alternate care sites with greater potential since they are supported by functioning utilities, sanitation and life safety measures and can be reactivated in a relatively short time. Memoranda of Agreements, or similar contractual documents, should be prepared in advance to avoid legal, financial, and jurisdictional delays that would interfere with an efficient transfer of patients.

### **Logistical resources**

Logistical resources to support the decision to evacuate must be identified and established in advance. In a well designed evacuation plan, actions affecting departing facility resources - staff, equipment, and supplies - must be clearly agreed upon prior to any movement of patients. Cross-credentialing of medical staff and other providers of healthcare is essential to any agreement.

### **Transportation resources**

Transportation resources may include vehicles, such as ambulances, busses, or other appropriate surface means to evacuate to the alternate site. Air transporta-

tion may be required to evacuate over great distances, or as the situation dictates. Consideration must be given to the patient type to be evacuated since special needs populations (pediatric, bariatric, behavioral, geriatric and forensic patients) will require uniquely configured transportation resources for safe transport. The importance of keeping families intact can not be over-emphasized. The special needs associated with movement of behavioral health and dangerous forensic patients cannot be underestimated. The consequences of a loss of physical control of large numbers of these patients in route create a danger to the community and the patients.

### **Additional security resources**

Route selections, primary and alternates, must be planned, taking into consideration the type of event and its impact on traffic and the general confusion it may cause. Coordination with local law enforcement authorities to provide or arrange for escort and/ or security during the evacuation process must be addressed in the context of the larger community. Regardless of the outcome of

these arrangements, the evacuating hospital must ensure the security and safety of the evacuation process, and additional security resources will likely be required.

### **Locking up your hospital**

Once the evacuation to the alternative care site has been completed, the last employee evacuating the facility doesn't just "lock the doors" and walk away. Short of clearing out the buildings, valuable and expensive equipment, pharmaceuticals, fuels and hazardous materials may be left behind for the eventual return to normal operations. Hospital administration must prepare to provide adequate security for the caretaking of the facility using existing security forces, contract security companies, or both.

Similar decisions must be made for facilities maintenance, i.e., will the evacuated facility maintain electrical power (if available) or switch to alternate generator power? Depending upon the situation, scheduled maintenance should be performed by a stay-behind plant operations staff in order to keep the facility's mechanical, power, water and other utility systems functioning

and in good repair, to facilitate the transition back to normal operations during the recovery process.

### **WHY SAFETY AND SECURITY MUST BE AT THE EMERGENCY PLANNING TABLE**

Planning for all-hazards preparedness and response in an increasingly hostile environment is an organizational task which must be viewed as mission essential. Successful organizations accept their roles and responsibilities in the national strategy for Homeland Security protection as an integral part the duty owed to their community. Safety and Security personnel perform pivotal roles in all aspects of physical safety of hospital facilities. They must be at the Emergency Management planning table and be prepared to contribute expert advice to the decision-makers at a time when correct decisions means the difference between survival or chaos. Hospitals must be prepared to support both the evacuation and protect-in-place choices and to understand that nothing is impossible until it never happens.