

How can hospitals possibly prepare for disasters? With practice and planning

June 15 2016, by Sam Shartar

The tragic shooting in Orlando brought dozens of victims to emergency rooms. Now, several of those people have been admitted and are clinging to life. Many across the nation are praying for them and other victims. Without quick response and high-quality emergency medical care, many more than the 49 already reported may have died.

Emergency room physicians described a scene of horror as wounded patients flooded the nearest hospitals and [gurneys lined up in hallways](#). How do emergency departments deal with such an unpredictable and horrific occurrence?

The truth is that while we may not know the exact nature of a disaster, we do know that catastrophes will happen. There are many examples of the need for metropolitan areas to be prepared to manage large numbers of casualties related to a major incident. In addition to natural disasters like hurricanes and tornadoes, examples include the marathon bombing in Boston; the recent terror attacks in Paris, San Bernardino and Brussels; and, most recently, the shooting that occurred in Orlando.

The Office of the Assistant Secretary for Preparedness and Response was started in response to Hurricane Katrina. The agency assists health care coalitions, which include [health care facilities](#) such as hospitals, [emergency medical service](#) agencies and local public safety departments to prepare in the management of large-scale events. It specifically aids hospitals to prepare for events that create a surge of patients through the [Hospital Preparedness Program](#). That agency establishes performance

goals, and hospitals regularly conduct disaster exercises to enhance their preparedness for managing these types of events.

Emergency departments are expected to respond rapidly. They must effectively and quickly assess who among the wounded needs treatment first, or triage. Hospitals must create surgical capacity in the operating rooms, and bed capacity on the floors to treat patients that require admission.

Emergency departments and hospitals participate in a disaster exercise at least once a year. These exercises help to prepare them for managing the large influx of patients associated with a mass casualty event. These exercises also hone triage skills. Additional staff are called in to treat the wounded. There is a science, called surge modeling, that has developed to guide emergency departments and trauma centers. Surge science takes data from events and analyzes response times and personnel needs so that emergency departments can be optimally staffed.

The key objectives of these plans include efficient distribution of critically injured patients to trauma centers and damage-control surgical principles when applied to mass casualty responses. These principles optimize surge capacity and have the potential to reduce mortality associated with the event. Hospital personnel are trained to create immediate capacity by moving patients and calling in additional assets in order to accommodate and manage a surge of patients. These systematic approaches to surge planning for mass casualty responses take an "all hazards" approach to ensure that the plan is adaptable and scaleable regardless of the type or cause of the event.

Obviously, caring for patients during a major event comes with its own emotional impact on those who provide care. Medical professionals, trained in emergency medical procedures, also train to focus solely on the critical tasks at hand. Make no mistake, however: These events

impact the providers. We typically debrief among ourselves to help us process what we have seen, and as a team, we provide each other with emotional support. From a leadership perspective, we also have trained personnel available to help debrief through critical incident debriefing meetings.

Preparation works

Fire, EMS, law enforcement personnel and staff at Orlando Regional Medical Center did an excellent job of caring for the victims injured in the tragic event that occurred on Sunday. The hospital received about four dozen people over a very short period. This surge of patients was triaged, treated, and critically ill patients were sent to the OR rapidly. One doctor described it as a war zone. Their planning and preparedness efforts helped to position those personnel for managing this kind of response. Those efforts highlight the importance of diligent planning and exercise programs. These preparedness activities make communities more resilient and ensure that key personnel are poised to respond appropriately to mass casualty events.

This tragic event will contribute to increased knowledge on preparedness. As time progresses, we will obtain hard data, and we will review this event academically to determine lessons to be learned.

Another important point to remember in catastrophic events is that survivors and even bystanders on a scene are often first responders. In the Orlando shootings, several police officers were pressed into duty to transport shooting victims to hospitals. One reportedly dragged a wounded person out of the Pulse bar and to [safety](#).

It is important for people to know safety strategies that may help them stay out of harm's way in the event of an active shooting.

Active shooter events are unpredictable, motives are different and warning signs may vary, but there are three things you can do to increase chances of safety and survival: Run, hide, fight.

- **Run:** If a safe path is available, always try to escape or evacuate even if others insist on staying. Don't linger to gather belongings. Encourage others to leave with you, but don't let their indecision slow down your own escape. Once out of the line of fire, try to prevent others from unknowingly walking into the danger zone and call 911.
- **Hide:** If you can't escape, try to hide outside the shooter's view. If you can't find a safe room or closet, hide behind large objects that offer protection. Seek a hiding place that doesn't restrict your options to move. Try to remain quiet and calm. When hiding, turn out lights, lock doors and silence the ringer and vibration mode on cellphones. If a door doesn't lock, attempt to block it with furniture or other large objects.
- **Fight:** As a last resort, if your life is at risk, working together or alone, act with aggression. Use improvised weapons – for example, a fire extinguisher or chair.

Unfortunately, we live in world where bad things happen. It is important for emergency departments and hospitals to prepare for mass casualty incidents. While they cannot predict specific occurrences, they can and do practice how to respond and be prepared for disasters. We can be thankful in the Orlando shootings that the emergency departments responded well.

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