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The Active Shooter

The New Threat in Healthcare?

Hypothetical Scenario

Distraught over his wife's recent death, Gary Clark blames three physicians for "killing her—doing nothing to try to save her." He neither understands nor accepts that they were honoring his spouse's end-of-life wishes as outlined in her advanced health care directive. After his attempt to file a medical malpractice lawsuit fails, Clark purchases a 9mm handgun for the purpose of exacting revenge for his loss. He gets the weapon into the hospital where his wife was treated. His targets: Dr. Webber, Dr. Shepherd and Dr. Grey, the physicians who cared for her.

Within minutes of Clark entering the hospital, the shooting spree begins. Panic and chaos reign as staffers run for cover. Dr. Shepherd calls for security and flips through the hospital's Emergency Management Plan, even as Clark calmly wanders the halls, firing at will. Clark manages to locate and wound Dr. Shepherd, then points his gun at another hospital staffer. She tearfully describes her life to the gunman in an attempt to save herself. At one point, he enters a surgical suite where doctors are operating on Dr. Shepard. He shoots a surgeon and leaves after seeing Dr. Shepard flatline. The SWAT team arrives and Clark expends one last bullet—on himself.

Fortunately, this terrifying "active shooter" episode comes from the popular TV medical drama "Grey's Anatomy" and therefore is fictional. Unfortunately, although rare, such incidents pose a real threat in medical settings being both unpredictable and difficult to prevent. The question is, are hospitals prepared to effectively confront and manage situations in which they are placed under siege by a violent and armed individual?

The “Active Shooter”: The New Threat in Healthcare?

The U.S. Department of Homeland Security (DHS) defines the active shooter as “an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearm(s) and there is no pattern or method to their selection of victims.”¹ DHS advises that “individuals must be prepared both mentally and physically” to deal with this specific threat.

The Central Intelligence Agency (CIA) distributes a daily report known as a “Threat Matrix” to national security, intelligence officials and the President. This report contains a list of credible threats to U.S. interests domestically and internationally. When the Threat Matrix changed to include the 9/11 attacks on the World Trade Center, the government responded by increasing airport security and providing more funding for the U.S. Department of Homeland Security.

Hospitals may not have a Threat Matrix report, however they can capture their natural and man-made risks in a Hazard Vulnerability Analysis (HVA). As the types of dangers and threats

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shift in the HVA, organizations must be adept at improving their safety measures and emergency plans to effectively respond to all identified hazards. The media portrays the active shooter as

an increasing hazard, as evidenced by the coverage of the 2011 shooting of Representative Gabrielle Giffords in Arizona and the 2010 shooting of a physician at the Johns Hopkins Hospital in Baltimore, MD. Although active shooters are not a new phenomenon, it appears that this type of violence has spilled over into healthcare.

Each active shooter event has been dynamic and different, making full preparation an unrealistic feat. Each event has provided valuable lessons in emergency and law enforcement response. In 1966, a sniper climbed to the top of a clock tower at the University of Texas in Austin, killing 13 and wounding 31. Law enforcement created the SWAT after this event. In 1999, two students embarked on a massacre at Columbine high school killing 13 and injuring 24. The SWAT team took 45 minutes to convene and enter the building. Learning from that, police subsequently changed their strategy from waiting for the SWAT team to arrive to instead entering buildings in a banded formation to locate the shooter and neutralize the perpetrator. The active shooter is a real threat that can originate from multiple sources in hospitals; disgruntled employees, enraged family members, angry patients, domestic violence and gangs. That being said, hospitals cannot afford to wait for an active shooter event to occur at their facility before making improvements to their emergency response plans.

Although active shooter incidents are extremely rare, for safety and regulatory reasons, healthcare facilities must have a plan. Stanford Hospital & Clinics Risk Consulting (SRC) recognizes the challenges that medical facilities face when balancing the need to ensure the safety of patients, staff, and visitors with also providing an open, caring, and therapeutic environment necessary for patient healing. Media coverage of hospital shootings proves the need for these facilities to recognize that not only their community, but especially their staff will expect that processes are in place to protect them should a violent incident occur. This is

SRC recognizes the challenges that medical facilities face when balancing the need to ensure the safety of patients, staff, and visitors with also providing an open, caring, and therapeutic environment necessary for patient healing.

necessary because enhanced security measures (metal detectors, cameras, armed security) may not be sufficient for preventing or managing gun violence in a medical facility setting. The responsibility for ensuring a safe environment should extend beyond hospital security services and be shared by all staff members. To that end, hospitals have a responsibility to educate and train all employees to prepare for an active shooter event. Leadership must also recognize the importance of hospital readiness for this type of disaster. In March 2011, the Centers for Disease Control and Prevention (CDC) published its analysis of a 2008 National Hospital Ambulatory Medical Care Survey of 294 hospitals. The CDC found deficiencies in emergency plans, which included approximately 20% of hospitals lacking crisis response plans for explosive-incendiary and nuclear-radiological events.²

This white paper provides a summary of violence in healthcare and presents considerations for hospitals to evaluate as they modify or update their existing policies and procedures for dealing with the active shooter. This paper also addresses: distinguishing active shooters from other acts of gun violence; profiling; regulatory requirements; challenges facing hospitals; and the three phases of emergency management. This report is not intended to provide legal guidance or to provide best practices for preparing for an active shooter.

Distinguishing the Active Shooter from Other Hospital Shootings

For the purposes of this paper, it is important to distinguish an active shooter event from other shootings, as law enforcement's response to such an incident is specific. The gunmen at Columbine, Virginia Tech, and Arizona exemplify the active shooter, whose goal is to kill as many people as possible and to shoot whomever is within view. Since this violent offender's actions are not contained, they are deemed "active." Retrospective evaluation of the Johns Hopkins Hospital shooting shows that the gunman was not an active shooter since his activity was contained to a specific unit of the hospital. This distinction is important to law enforcement. When a gunman's activity is contained, law enforcement may secure the perimeter and command

the gunman to drop their weapon if not directed at police or another individual. In the case of an active shooter, the police and/or SWAT team's objective and response requires immediately neutralizing the threat. Therefore, the ability to inform law enforcement of the type of activity is important in helping them respond effectively.

DID YOU KNOW

Most, if not all, workplace violence programs include staff education and training on the indicators of violence, such as:⁵

- Alcohol and drug abuse
- Depression and withdrawal
- Unstable, emotional responses
- Paranoia
- Unsolicited commentary on firearms and violent crime
- Noticeable change in appearance and hygiene
- Outbursts of anger without provocation
- Change in behavior
- Verbalization of violence

Profile of an Active Shooter

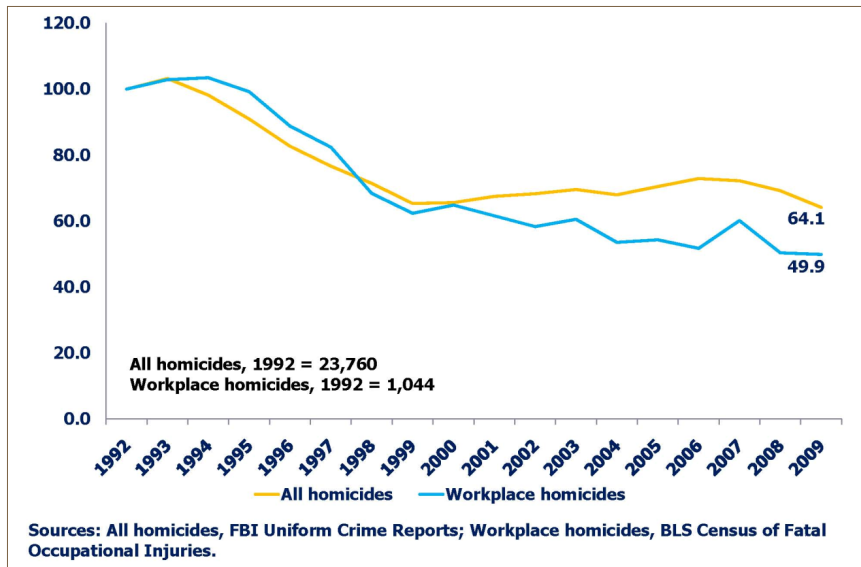
Profiling is as an investigative method employed by the Federal Bureau of Investigation (FBI) to help solve and prevent crimes by analyzing criminal behaviors to understand why criminals behave and think the way they do.³ The general public may be under the impression that the active shooter has a specific profile. The reverse is true, because according to a study conducted by the U.S. Secret Service and the U.S. Department of Education, there is no distinct or useful profile for an active shooter.⁴ The study reviewed 37 school shootings from 1974 to 2000 and found that the perpetrators came from all ethnic and socio-economic classes. Surprisingly, many had no background of violence and came from intact family units. The study also found that these individuals lacked a history of aggression or lashing out. Although the study found no distinct profile, commonalities observed included gender (most were male), and well over 90% of the shooters had experienced a failure or loss that they perceived as serious. The study noted that targeted school shootings were rarely the result of impulsive behavior; 93% were planned.

These behavioral clues assist staff with identifying potential violence from co-workers and other individuals they have contact with, but may not be beneficial where the active shooter has no prior contact with staff. Despite the uncertainty of such an event, hospitals should continue to provide the requisite education and training to detect behavioral warning signs, as well as practice emergency drills, with the equal realization that there may be no way to prevent an incident.

A Culture of Violence?

An internet search for "hospital shootings" yields nine events that have occurred since June 2010. Most recently, there has been much media attention given to the January 2011 shooting in Arizona that critically injured U.S. Representative Gabrielle Giffords and resulted in six deaths. Based on these headlines, it would appear that society is becoming more violent.

Index of homicides, all homicides versus workplace homicides, 1992-2009



Graph used with permission from John Ruser, Assistant Commissioner, Occupational Health and Safety Statistics, Bureau of Labor Statistics, U.S. Department of Labor.

DID YOU KNOW

Number of Active Shooter Incidents by Country from 1966 to 2010

U.S.	237
Canada	8
Germany	6
Australia	5
Israel	3
United Kingdom	4
Finland & India	2
Argentina, Austria, Bosnia, Denmark, Egypt, France, Greece, Italy, The Netherlands, Slovakia, Somalia, Sweden, Thailand, Yemen	1

Instead, the FBI reports that as of 2009, homicides in the U.S. have actually been declining.⁶

This is a fascinating statistic given the state of the economy and changing landscape of violence in the U.S.

This past January, the New York City Police Department (NYPD) analyzed 281 active shooter events from 1966 to 2010 which occurred world-wide.⁷ They found that the U.S. had the most incidents of active shooters compared to other nations. However, the NYPD advised that there is a “strong sampling bias against international incidents” because they limited their internet searches to English-language sites.⁸

The highest rate of occupational homicide in the U.S. occurs in the retail trade industry (24%); the lowest in construction (2%).⁹ Hospitals are included in the category of “Professional and Business Service,” which constituted 5% of occupational homicides.¹⁰ The homicide rate may be low in hospitals, yet employees in the healthcare and social assistance sector account for approximately 60% of nonfatal assaults, the highest of all of the sectors from 2003 to 2007.¹¹ Therefore, despite the decline in violent crime reflected in occupational homicide, it is clear that healthcare employees remain highly exposed to violence.

In June 2010, The Joint Commission (TJC) issued a Sentinel Alert regarding a significant increase in reports of violence in healthcare, with the greatest number of reports submitted from 2007 to 2009.¹² TJC acknowledged that under-reporting may have resulted in the lower number of reports in prior years, but cautioned that assault, rape and homicide are still consistently ranked in the top 10 types of sentinel events reported to TJC. Based upon the data referenced thus far, it is clear that violence is a hazard that exists in hospitals, particularly in high stress departments such as the Emergency Department (ED) and Intensive Care Units (ICU). As a result, it is incumbent upon health organizations to have emergency management processes and procedures in place, as well as staff training

and education that sufficiently address violence in healthcare.

Regulatory Requirements

THE JOINT COMMISSION

The Joint Commission has six chapters of accreditation standards related to violence prevention: emergency management; environment of care; human resources; leadership; provision of care; and performance improvement.¹³ The emergency management standards require drills or exercises to test how the organization and staff respond to a situation when the organization cannot provide the services that it normally does. The environment of care standards require that healthcare organizations maintain a written plan defining how they will provide security for patients, visitors, and staff. It also requires risk assessments for determining the potential for violence, violence prevention strategies, plus a response plan to use for incidents of violence. Human resources must provide staffers with violence prevention education and training. Leadership is responsible for assuring that the planning, implementation, mitigation, and prevention of such events are adequately resourced. The provision of care standards apply to implementing institutional behavior management policies. The performance improvement standards focus on data collection from reported events and applying a methodical process for improving the system to prevent such events from occurring.

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA)

OSHA released guidelines in 2004 for preventing violence in healthcare.¹⁴ These guidelines do not address patient care-related issues and are intended to assist employers with preparing

effective workplace violence prevention programs. Although OSHA states these guidelines are advisory and informational, the proviso is the “General Duty Clause” of the Occupational and Safety Health Act of 1970, which mandates that employers provide a workplace free from recognized hazards likely to cause death or serious physical harm. Although failing to adhere to the 2004 guidelines does not by itself constitute a violation of the General Duty Clause, employers can be cited if they take no action to stop or prevent recognized workplace violence.

In recent months, OSHA has cited hospitals for inadequate workplace violence safeguards under the General Duty Clause. The incidents involved violent patients assaulting staff, not active shooter events. In February 2011, Cal/OSHA cited a hospital for several events that ranged from a gunman holding two staff members hostage, to having insufficient procedures for protecting employees while they tend to gunshot victims who are dropped off in front of the facility.¹⁶ In addition, OSHA has cited hospitals for not having interactive

DID YOU KNOW

OSHA lists five components of an effective health and safety program for preventing workplace violence.¹⁵

1. Management commitment and employee involvement
2. Worksite analysis
3. Hazard prevention and control
4. Safety and health training
5. Recordkeeping and program evaluation

workplace violence education, indicating that written education is not sufficient. OSHA fines range from approximately \$6,000 to \$10,000. According to an OSHA administrator, “The serious citation points to the clear and pressing need for the hospital to develop a comprehensive, continuous, and effective program that will proactively evaluate, identify, and prevent conditions that place workers in harm’s way.”¹⁷

Practical Considerations

PHYSICAL SECURITY

Hospitals face several challenges when protecting their environment, which is open to the public every day of the year. It is impossible to secure these facilities in the method and manner in which airports and government buildings are, particularly since hospitals have numerous portals of entry. Furthermore, it may be useless to even consider such a change since hospitals are typically open to everyone and considered “safe havens” — places for health and healing. For most patients and their families, hospital visits are generally a stressful event. The installation of metal detectors at every entrance and the presence of increased security staff could detract from the patient experience and likely produce additional, unnecessary stress. Statistics show that a majority of active shooter incidents are planned, therefore it seems unlikely that enhanced security staff, equipment and procedures will be effective in preventing them.

OPERATIONAL CHALLENGES

If an active shooter incident occurs, hospitals must balance the need for safety and security with continuing to provide care in a therapeutic environment. This means dealing with risks associated with abandoning care versus continuing care under the stress of knowing that an active shooter has not been neutralized. Unlike school shootings that involve lockdown and evacuation, hospitals must still deliver care and ensure patient safety. Operations cannot entirely cease if a shooter is located on one floor. ICU care and OR suites located in different wings of the hospital must still operate, or else suffer the risk exposure of failing to provide requisite medical care.

CHANGING CULTURE

It is important for staff to understand their role in ensuring workplace safety, and to be properly educated so they understand that security personnel do not hold primary or sole responsibility. Every staff member, including administrative leadership, has a role in ensuring workplace safety and security. Recommendations for staff education and training include: 1) changing “culture,” namely the perception that security personnel are solely responsible; 2) situational awareness; 3) sensitivity to behavioral signs; and 4) building listening and communication skills to de-escalate or diffuse a situation. Another general misconception is that more security equates to a safer environment. Instead, annual threat and security

assessments coupled with staff training and education are more likely to be effective than investing in more security officers, cameras or metal detectors.

FINANCIAL CHALLENGES

In today's economy, many hospitals may be struggling financially and thus unable to provide adequate resources and staffing in security and human resources to provide workplace violence education and training. But shortfalls in these areas could literally be fatal, particularly if personnel perceive they do not work in a safe environment or if administration has not provided policies and procedures to address workplace violence inclusive of the active shooter scenario. Potential risks include OSHA citations under the General Duty Clause and damaging media attention. With respect to a potential active shooter, hospitals need to determine whether they will spend the resources to prepare for an event that has a very low frequency, yet a potential for high loss. For example, full-scale exercises are an expensive investment.

EMERGENCY CODES

In 2009, the Hospital Association of Southern California (HASC) prepared standardized healthcare emergency codes after three people were killed in a shooting and the wrong emergency code was called.¹⁸ HASC recognized the need for a uniform response to such situations because patients were adversely affected as a result of variance in color coding among staff who worked at multiple hospitals. The rationale for standardization is analogous to wristband color coding. The standardized emergency codes adopted by HASC include:

Code Red	Fire
Code Blue	Adult emergency
Code White	Pediatric medical emergency
Code Pink	Infant abduction
Code Purple	Child abduction
Code Yellow	Bomb threat
Code Gray	Combative person
Code Silver	Person with a weapon and/or hostage situation
Code Orange	Hazardous material/spill release
Code Triage Internal	Internal disaster
Code Triage External	External disaster

The HASC emergency codes are not mandatory in California and were provided as guidelines. Each organization must decide whether it wants to adopt a Code Silver for active shooter events. Another consideration must be given to determining whether color coding or plain text/clear language will be utilized.

Organizations that have adopted Code Silver for responding to a person with a weapon or a hostage situation have done so with the premise that this code specifically dictates an internal and external approach that is different from a Code Gray. Security, Risk Management and Emergency Management must evaluate whether their current processes and responses differ

between a threatening person and a person with a weapon. Some organizations may utilize a strength-in-numbers approach for a threatening person (Code Gray), while others may require staff to seek shelter for the active shooter, weapons possession or a hostage situation (Code Silver). For some, a Code Silver is essential to alert staff and security personnel of an active gunman in order to keep them from putting themselves in harm's way.¹⁹ As previously noted, law enforcement will also tailor its response according to the nature of the emergency. Not all threatening people require law enforcement. A Code Silver alert signifying an active shooter would of course trigger an immediate police response to locate and neutralize the gunman.

Considerations against adopting a Code Silver include concerns about too many colors for staff to refer to. In an active shooter situation, the time used to refer to color coding to determine the nature of the emergency may be crucial. There is also the question of color similarity and a possible inability to determine gray from silver.

Federal agencies have moved away from color coding emergencies to using plain text/clear language. Similar to hospitals, variance of color coding was observed among federal agencies. The switch to plain text/clear language was prompted by the need to clearly and effectively communicate information during emergencies such as natural disasters or terrorist attacks. Last year, the Wisconsin Hospital Association (WHA) strongly recommended that hospitals use plain text/clear language for overhead pages by January 1, 2012.²⁰ Although 60% of the hospitals surveyed used the same emergency codes for fire and cardiac arrest, variance was found among the other emergencies (11 different codes for infant abduction and 23 for disaster).²¹ Their rationale for this change included:²²

- Reducing the amount of information an employee must learn or re-learn and decreasing the risk of confusion during emergent events;
- Enhancing emergency communication among hospitals and external agencies by using common language;
- The use of different numbers and color codes creates confusion and increases the risk of miscommunication and the potential for serious negative outcomes.

WHA surveyed the general public on their response to the variety of color coded alerts and found that a majority wanted to know exactly what was going on and what they should do in such circumstances, despite the anxiety they might experience.²³ Many organizations have selected color coding to communicate an emergency without inciting fear and chaos among patients, visitors, and staff. Each organization must weigh the risks and benefits of color coding versus plain text/clear language. Clear language is a double-edged sword, particularly in an active shooter event. It may create havoc and result in more deaths from stampeding and/or running in the direction of the shooter. It also has the potential of decreasing chaos.

Is Your Hospital Prepared for the Active Shooter?

In March 2011, the Centers for Disease Control and Prevention (CDC) published its findings from the 2008 National Hospital Ambulatory Medical Care Survey of 294 hospitals. The CDC found that approximately 68% of hospitals had emergency plans for all six types of hazards (epidemic-pandemic, biological, chemical, nuclear-radiological, natural incidents, and explosive-incendiary).²⁴ Preparedness for explosive-incendiary hazards was noted to be “significantly less frequent than preparedness for other types of mass casualty incidents; approximately 20% of hospitals did not have emergency response plans for explosive-incendiary attacks, which are emergencies involving bombs and commercial airplanes used as missiles.”²⁵ Furthermore, about 68% of hospitals did not address explosive-incendiary attacks in their disaster drills. Although active shooters do not fit squarely into any of the six hazards, such individuals are likely to be linked to explosive-incendiary hazards, particularly if they use bombs. The Columbine shooters prepared bombs, which fortunately did not detonate.

Active shooter events progress and end rapidly, and are unfortunately unpredictable and difficult to prevent. Within 10 to 15 minutes, lives can be taken and the event over before law enforcement can arrive. This is discouraging, but there are measures a hospital can take to mitigate the risks such events pose. The organization as a whole should be mentally and physically trained to prepare, respond and recover.

The following emergency management strategy: prepare, respond and recover, can provide a model for organizations to consider in developing and implementing their own emergency risk mitigation strategies.

Prepare

Preparation involves assessing the organization’s risks, vulnerabilities and likelihood of occurrence for a particular disaster. Organizational infrastructures are evaluated to assess function and capability in the face of disaster. Where a full analysis reveals deficiencies, additional plans and actions must be implemented to bridge gaps and vulnerabilities. Disaster preparation planning and drilling are likely to provide the best guidance on how to best prepare for an active shooter. Helmuth von Moltke, a military strategist, once said, “No battle plan survives contact with the enemy.”

The challenge is that there is no best practice known for the active shooter. Each organization must involve its senior leadership and decide what policy and protocol it believes is best for its needs. In addition, there is no single policy or plan that could address the variable active shooter scenarios.

CONDUCT A HAZARD VULNERABILITY ANALYSIS

It is important to complete an annual hazard vulnerability analysis of your organization to determine the probability, risk and preparedness for an active shooter. During this evaluation, consider that active shooter threats could arise from a variety of sources such as domestic violence, workplace violence, and terrorism. Your facility may have desirable resources that may increase your risk of an attack. For example, hospitals store radioactive items that criminals may seek to construct dirty bombs. They may also attempt to access special chemicals for nefarious purposes.

The hospital is an open and free facility that a criminal could easily case. It is essential to take inventory of weak spots, such as generators and areas that store oxygen and chemicals.

PARTNER WITH LAW ENFORCEMENT

Ken Dueker, Coordinator of Homeland Security & Public Outreach, Palo Alto Police Department, recommends that hospitals build relationships with local law enforcement, particularly first responders. Local law enforcement can be better prepared for an active shooter scenario if they are familiar with the layout of a facility, hazards and critical assets. They can provide informal walk-throughs, assist with a hazard vulnerability analysis and the collection of information for the DHS, and with the planning and design of active shooter drills. They can also provide education on what to expect during an active shooter event.

The challenge with active shooter response preparation is that there are variables not only with the event itself, but also with the response in different jurisdictions. By meeting with law enforcement, each hospital will learn about the staffing and capabilities of their first responders. Having this information in advance will assist organizations with their emergency planning and manage the expectations of leadership and staff. For example, some jurisdictions may respond with a “contact team” of three officers instead of five. In other jurisdictions, there may be a 10- to 15-minute wait for officers to convene.

UTILIZE FEDERAL RESOURCES

In December 2003, Homeland Security Presidential Directive 7 established a national mandate for federal agencies to identify and prioritize critical infrastructure and vital resources with the goal of protection from terrorist attacks.²⁶ DHS defines critical infrastructure as “assets, systems, and networks, whether physical or virtual, so vital to the United States that the incapacity or destruction of such assets, systems, or networks would have a debilitating impact on security, national economic security, public health, or safety, or any combination of those matters.”²⁷

As a result of this directive, the Homeland Security Data Network (HSDN) and Automated Critical Asset Management System (ACAMS) were initiated. The HSDN enables the federal government to move intelligence information at a nationwide level and is deployed at 72 “fusion centers.” Fusion centers, such as the Northern California Regional Intelligence Center

(NCRIC), disseminate intelligence information and facilitate communication between local, state and federal agencies and private sector partners.

ACAMS provides tools and resources to assist law enforcement, public safety and emergency response personnel with building local partnerships and developing incident response and recovery plans. ACAMS is an electronic information portal that helps governments build critical infrastructure/key resource (CIKR) protection programs in their jurisdictions. The ACAMS process requires the DHS to partner with private industries and government (local, state, tribal) so that information is available to first responders. In summary, the ACAMS information portal contains data on an organization's assets, asset vulnerabilities and floor plans. All information submitted to ACAMS is controlled and protected by DHS guidelines. This process for collecting information has been used for high-profile events, such as the Superbowl.

Hospitals can better prepare themselves for an active shooter situation by completing an Asset Manager Questionnaire that covers information on:

- Points of contact
- Facility description
- Facility population
- HazMat
- Threat history
- Security procedures
- Emergency plans
- Photos, maps, diagrams

Once the questionnaire is completed, it should be submitted to the local fusion center. It is recommended that a copy also be maintained in a secure and readily accessible site within the facility for use in the event of an active shooter episode. This information will be shared among emergency response teams. In most cases, the information will simply be stored and utilized for emergency situations. In cases where federal agencies have publicly identified certain organizations as a terrorist target, a survey group consisting of four to five subject matter experts will visit the hospital to evaluate assets. The goal of the visit is to create a comprehensive game plan and report for law enforcement to access.

It is important to note that all information submitted on the Asset Manager Questionnaire is protected. Furthermore, the information cannot be used against an organization in civil litigation and cannot be used for regulatory purposes.

ACTIVE SHOOTER EXERCISES

Each organization must assess the risks and benefits of the costs associated with preparing for an active shooter. Furthermore, organizations must acknowledge that a well delineated policy and procedure may not be sufficient for confronting and managing this situation. Active shooter exercises are encouraged to help organizations better recognize deficiencies

in planning and capability; simulations will also enable staffers to function with better understanding of the process. During these exercises and drills, the critical components of an emergency response are tested:

- Communication;
- Defined roles and responsibilities;
- Resource and asset management;
- Safety and security management;
- Utilities management; and
- Clinical activity management.

Emergency training plans consist of a tiered approach: table top exercise, functional exercise, and a full-scale exercise.²⁸

TABLE TOP EXERCISE

This is the first and most basic approach for preparing and planning for an active shooter. This exercise is a meeting where senior leadership, key stakeholders, police, emergency medical services, and the fire department discuss roles, responsibilities and procedures. The group simulates the event in a superficial manner without the stressors of a full-scale exercise to problem solve as a group. It provides the opportunity to learn and discuss issues that may not be apparent in a full-scale exercise where participants are affected by physical and emotional stressors. Advantages include low cost of finances, resources and time. Some disadvantages of the table top include an inability to provide realistic stressors that test the organization's capabilities; and no mechanism to demonstrate system overload.

FUNCTIONAL EXERCISE

Functional exercises are used to test and assess emergency plans and functionality under emergency conditions. Participants are presented with a complex scenario that requires immediate and effective response while in a stressful, highly interactive environment. This is a valuable exercise for evaluating policy, procedure, resources, staff and system performance, communication, resource and personnel allocation, and effectiveness of emergency management. Post-exercise debriefings identify gaps and weaknesses where improvements and corrective actions can be implemented. This type of exercise may be an option for those organizations who want to test their emergency response plan without the associated costs or safety risks of a full-scale exercise.

FULL-SCALE EXERCISE

A full-scale exercise utilizes the functional exercise and includes activation of the Hospital Incident Command System (HICS), plus deployment of response personnel (law enforcement, emergency management, security, EMS, fire) and equipment to respond to a simulated emergency situation. It is intended to provide simulation closest to the stress of a real emergency within a controlled setting to test and evaluate the operational capability of the organization,

as well human response. This is a time consuming and costly exercise that requires careful planning, leadership support, personnel, expertise and additional costs. A full-scale exercise allows organizations to fully challenge and test the emergency response process and system.

Caution should be used when organizing a full-scale active shooter drill. Poor planning and coordination could be fatal or result in adverse patient care events. One hospital learned this lesson in May 2010 when ill planning caused an interruption in care and unnecessary stress on staff.²⁹ In this case, an off-duty police officer posing as a terrorist entered the hospital's ICU brandishing a gun. Neither the staff nor the patients and families were aware that this was only a drill, one that halted the delivery of patient care for approximately 10 minutes.³⁰ Consider the harm that could result if a drill is not communicated, leading up to a 911 call that may initiate an active shooter response by law enforcement.

During these drills, organizations must consider a variety of active shooter scenarios that may involve multiple shooters, explosives, or the gunman reaching the internal command center. Hospitals may want to consider contingency plans for having an external command center.

COMMUNICATION

Hospitals must assess and confirm whether they have the means for effective, timely, and accurate communication of a shooter event. The following are recommendations to consider:

- A common radio channel linking security and other key contacts;
- Social media to communicate event status;
- Mass notification systems to inform staff about the event, as well as status of bridges and roads; and
- Templates or pre-fabricated holding statements.

Accurate disclosure of events is needed for organizational recovery. Poorly worded, inaccurate, or late release of information could result in confusion, distrust and additional chaos.

Respond

STAFF RESPONSE

Active shooters target what they see or come into contact with.³¹ If an active shooter is within the vicinity, DHS recommends evacuation if there is an accessible escape route, then calling 911 when safe.³² If evacuation is not possible, DHS recommends hiding and barricading.³³ Cell phones and pagers should also be silenced while owners are hiding to prevent any attention from the active shooter.³⁴

Hospitals must decide for themselves what processes they are going to use and when they will use them. In the face of gunshots, staff will instinctively run for their lives or lock themselves in a room. In order to mitigate loss of life, it is important for organizations to provide staff education on lockdown, evacuation and sheltering in place. For example, not all active

shooter situations will require full evacuation. One northern California Hospital has a procedure that prescribes evacuation for those not engaged in patient care and sheltering in place (hiding, barricading, locking doors) for those actively engaged in patient care. This may not provide much clarity or guidance in cases where the active shooter has explosives set to detonate in a particular area of the hospital.

When calling 911, an exact location—such as the 5th floor of building B—needs to be communicated to law enforcement, as well as a description of the weapon(s) and suspect(s).³⁵ Location terms such as NICU and L&D are not likely to be helpful to first responders, particularly when time is of the essence. Additional cautions include not standing directly behind doors or in front of windows, in case a shooter fires directly at these objects. Some organizations have prepared procedures that direct staff to stay barricaded until the police arrive and officially announce an “all clear” of the area.

POLICE, FIRE AND EMT RESPONSE

Ken Dueker, Palo Alto police officer and Coordinator of Homeland Security and Public Outreach, recommends that 911, rather than security, be called first. Once 911 is alerted, law enforcement will form a team of first responders to enter the area of fire with the goal of locating the suspect and neutralizing the threat.³⁶ In their pursuit, team members will pass injured victims. It is important to educate staff not to approach the first responders and not to anticipate rescue. Staff should stay in place and hold their hands high over their heads when they see police.³⁷ Once the officers provide an “all clear” of the area, rescue teams will save, secure and treat victims.

SECURITY RESPONSE

Security’s role is not to apprehend the shooter, but rather to meet with law enforcement upon their arrival, and serve as a liaison between these officers and the Incident Command Center. Security’s role includes, but is not limited to:

- Supplying a crisis box that contains essential resources for the police such as maps, keys and access cards;
- Directing traffic;
- Managing evacuations;
- Assisting with establishing triage areas;
- Providing live video feeds for police (capability pending); and
- Closely observing activity and suspects (serving as the “eyes and ears” for police).

Recover

Recovery is the last phase of emergency management, where the organization must restore to its natural state of function. This involves accessing public and private resources to facilitate recovery, which will vary depending on the scope of the crime and the extent to which the

hospital is not fully operational. Consider that federal agencies may conduct their own investigations further complicating and slowing down the recovery process. Such an event would be a significant challenge to the continuity of operations. During this phase, the Hospital Incident Command team will work with the police department incident command center to form unified directives. Especially now, clear communication is paramount for effectively coordinating response and recovery.

Hospital administrators should be prepared to recognize that all areas affected by the active shooter will be cordoned off as a crime scene. If this is limited to a defined area, the recovery may take hours. However, if the crime scene is extensive and involves multiple floors and numerous victims, normal operations will cease for a much longer period. Therefore, hospitals are encouraged to develop and/or update their business continuity plans.

CONCLUSION

Media coverage of shootings in Arizona and Johns Hopkins has generated public concern and questions as to whether violence has increased, particularly active shootings. Despite what appears to be an improvement in national homicide rates, active shooters pose a potential hazard in healthcare because of the nature of the hospital environment. Hospitals are open to the general public, have numerous entry points, and can produce high levels of stress for patients, visitors and employees. Hospitals also possess chemicals and radiologics that may be impaired or released if an active shooter used explosives.

Active shooters, like “Mr. Clark” in the opening scenario, present a challenge to hospitals and the general public for many reasons. The best policies in place cannot cover the spectrum of possibilities that may include explosives and/or multiple shooters. Hospitals can mitigate the chaos and damages associated with this type of disaster by partnering with law enforcement, having comprehensive workplace violence prevention programs, and conducting simulation exercises that allow organizations to fully assess emergency plans and processes and capabilities under fire. Most importantly, simulation will test the human reaction under stress and train employees to mentally and physically respond to an active shooter crisis that hopefully will mitigate loss. Although these events are unpredictable, they are preparable. Hospitals have strategies, tools, and options to prepare for an active shooter situation.

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