

# S-I-M: Training Students for an Active Shooter Incident

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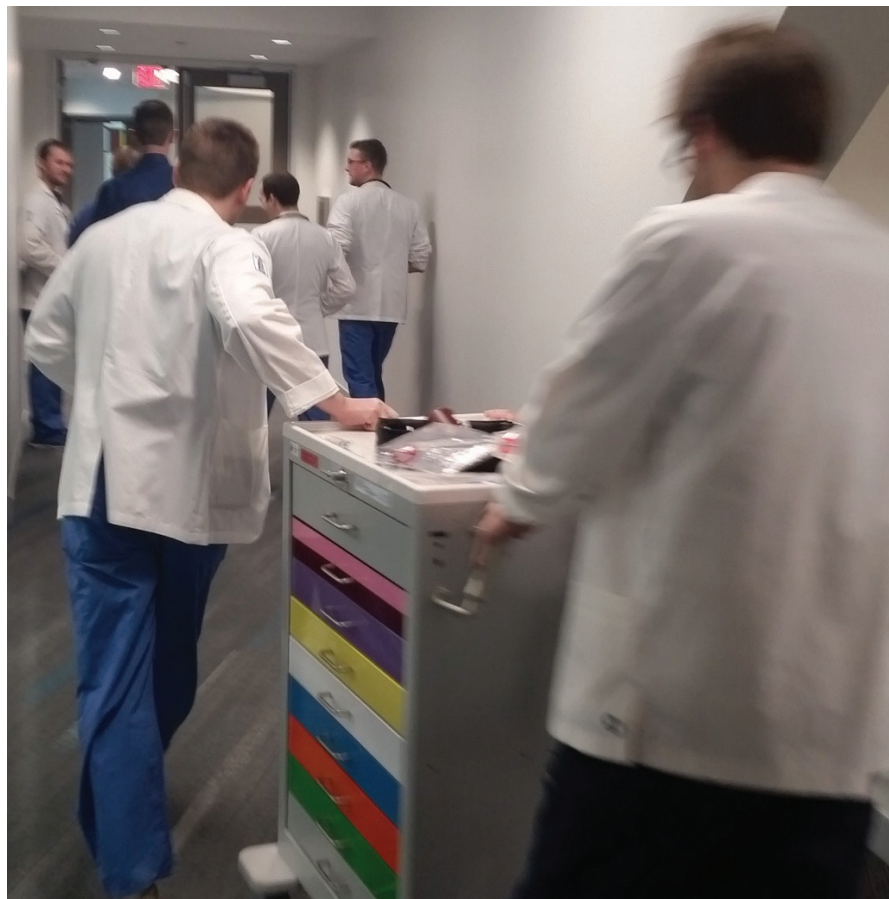
The shootings in Paris and San Bernardino, CA, validate the concept of the inherent vulnerability of soft targets in active shooter events. It is foolhardy to think that this problem is a transient aberration; recent history says otherwise. These incidents have increased from 6.4 per year (2000-2006) to 16.4 per year (2007-2013). (Texas State University and Federal Bureau of Investigation, U.S. Department of Justice, 2014; <http://1.usa.gov/1Q2Ly6d>.) It would also be unwise not to consider hospitals and other health care institutions as soft targets, too. Active shooter incidents have increased from nine per year (2000-2005) to 16.7 per year (2006-2011) at these venues. (*Ann Emerg Med* 2012;60[6]:790.)

Efforts have been made to address this vulnerability in health care guidelines, protocols, and education, but certain insufficiencies remain, largely because active shooter education is frequently optional, often PowerPoint heavy, not targeted to the health care student (an underserved population), and insufficient in addressing potentially conflicting options such as duty to oneself, to one's staff, and to one's patient.

Integrating the University of Toledo Medical Center active shooter policies, guidelines from the Department of Health and Human Services (DHHS) and other official resources, and the resources of our Interprofessional Interactive Simulation Center (IISC), we have developed Speed, Impede, Make 'em bleed (S-I-M). The goal of S-I-M is to introduce the health care student to preparedness and response tactics in an active shooter incident while simultaneously addressing potentially conflicting duties with regard to oneself, staff, and patient.

The appellation was created not only to highlight the simulated drills associated with this education but to create an impression on our young learners.

**S = Speed:** Quickness of thought and decision-making; fleet of foot in the escape



A series of actions taken by the team when they decided it was prudent to run since the assailant was on another floor. They chose to take baby, Dad, and a crash cart.



Students used a variety of medical supplies on hand to immobilize the automatic door-closer hinge to bar entry.

**I = Impede:** If the option is to hide from the assailant, then the objective is to create a fortification that will block or deter an assailant's entry into one's hiding area using items that are available in the patient care area

**M = Make 'em bleed:** Locating and accumulating makeshift offensive and defensive weapons located within the patient care environment should the hiding spot be breached

This is consistent with the "run-hide-fight" mantra that has been promulgated via governmental and non-governmental agencies.

## 'Gunshots and Screaming'

We introduced the program late in 2015 with the advice and consent of the campus police, who are ALICE-certified (Alert, Lockdown, Inform, Counter, Evacuate), and after assimilating material from various official sources. S-I-M was integrated into the emergency medicine clerkship program, which includes simulation emergency medical education. Every Monday from 8 a.m. to noon, the physician assistant and medical students are required to attend skill sessions and manage patient scenarios with hybrids and high-fidelity simulators. Frequently, the students are supplemented by pharmacology, nursing, public health, EMS, and global health students. The faculty is multidisciplinary: EMS, public health, nursing, and emergency medicine (an emergency medicine attending and one or two residents).

Students receive literature at the start of each month's rotation on active shooters published by the DHHS as well as the hospital's active shooter policy. Everyone knows ahead of time that S-I-M will take place and that it is a no-threat scenario. Other than sound effects, no other visual or physical props such as fake guns or terrorist actors are used. What the students do not know is the type of patient they will be managing at the time the active shooter drill commences. Cases in the past have included a parent with a febrile neonate, a patient with an atypical headache,

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# Shooter

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a patient in asystole, a patient with a ST segment elevation myocardial infarction (STEMI), and status-post ventricular fibrillation. We also alter the location of the shooter, who could be on another floor giving the students some time to make a decision or in the same location, limiting possible options.

The students' first exposure to the active shooter is more of a walk-through. The students first make contact with their patient, and then an active shooter announcement comes over the public address system, replicating what they would hear in the hospital. Of course, the announcement is preceded by "This is a drill." This is followed by automatic gunshot sound effects and screaming.

## Learning in the Moment

Then comes the moment of decision: Run, hide, or fight. The exercise is terminated once that decision is made, and the educational team begins the debriefing regard-

ing patient management within the context of an active shooter. We emphasize leadership, decisiveness, and the fact that there is no clear-cut answer. Every situation is unique and whatever decision is made cannot be faulted. We stress, however, items and objects can be found in many patient care areas that can be used to block the perpetrator from entering the patient care space or to fend off the assailant if encountered.

Blocking the door with crash carts and beds and using surgical tape and nasal cannulas to secure the automatic door-closer hinge are discussed. Similarly, IV poles, scalpels, needles, drug vials, and personal items, such as belts, stethoscopes, and shoes are highlighted as ad hoc weaponry. A laryngoscope, for example, can serve as one object to be employed against a shooter. That same laryngoscope can be broken down into four weapons: blade, handle, and two batteries, demonstrating a certain flexibility of thought.

The students' second encounter with an active shooter drill has demonstrated to the

educators that certain lessons have been learned. They took charge and made their decisions more quickly. It has also allowed us to be more creative. One of the last exercises involved the students learning to manage a septic baby, address an active shooter, decide what to do with the baby and the parent, and then, when the perpetrator was neutralized, manage a gunshot wound victim in the hall of the simulated emergency department.

Feedback from students and faculty has been uniformly posit-

ive, and it is our mission, as the threat of an active shooter continues, to maintain this program for our students and possibly extend it to hospital staff and employees in the future. [EMN](#)

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