A Shooting in the Hospital: When Domestic Violence Occurs in the Hospital, Reflection, and Response

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On September 12, 2017, a son walked into his mother's room in the surgical intensive care unit (ICU) of Dartmouth-Hitchcock Medical Center (DHMC) in Lebanon, New Hampshire, and shot her with a handgun. As an actively practicing hospitalist and the Chief Clinical Officer for DHMC, I immediately became involved with our hospitals' response to domestic violence, a homicide, and an issue that to this point we felt lived outside our walls.

Several hospital systems are struggling with violence entering their institutions, particularly in their psychiatry and emergency service areas, fueled in part by untreated mental health and the rising opioid epidemic. Although gun violence in hospitals is indeed rare, inside the hospital, it occurs often in the emergency department.[1] In New Hampshire, we suffer from a woefully underfunded state mental health infrastructure and one of the highest opioid death rates in the United States.[2]

DHMC is a 400-bed academic medical center, level 1 trauma center, and a National Cancer Institute (NCI)-designated cancer center that serves New Hampshire and eastern Vermont with its community and critical access hospitals and community group practices across the two states. With a wide geographic catchment area, our academic hospital at DHMC has one of the highest case-mix indices in the northeastern United States and is in the top 30 among hospitals of >300 beds in the United States.

After the shooting, the patient's son left the ICU without targeting anyone else, and despite video surveillance systems, he was not seen leaving the hospital. At the same time, a Code Blue was called to address the victim and her needs. The Critical Care staff struggled to attend to and resuscitate the victim, and my Medicine team, on call that day, was paged and rushed to the ICU to assist. In a unit trained to manage the sequelae of trauma, this event was painfully surreal. Ultimately, the surgical critical-care physician, attending to the patient, ended the resuscitation efforts when it was clear that the patient, now a homicide victim, could not be saved.

With the shooter's whereabouts unknown, a Code Silver (Active Shooter alert) was called. Then, following our "Run-Hide-Fight" training protocol, staff, patients, and visitors exited the building in large numbers and those that could not, sheltered in place. The operating room and the emergency department were secured and continued to function.

More than 160 law enforcement officers, including trained tactical and SWAT teams, from 13 different agencies arrived on scene. Ninety minutes after the shooting, the son was apprehended at a police traffic checkpoint, attempting to leave the hospital campus.

Our involvement in this event did not end at this point. Concerned about the possibility of other suspects or devices left in the hospital, the law enforcement officers swept our hospital. With a 1.2 million square foot campus, this would take another two hours, during which we still provided care to our patients and asked the staff and families to continue to seek safe shelter.

The shock of this terrible day was immediate and profound, leading to a thorough debrief and systematic analysis of how we might improve our processes and in turn help other organizations that might unfortunately face similar situations.

We reflected on how to better secure our hospital and to strengthen our coordination and collaboration with law enforcement. We increased our security presence not only in the ICU but also in our emergency department and developed individual unit-based security measures. We fast-tracked a unit-based shutdown plan that was already in process and increased our commitments to plan and drill for larger scenarios in conjunction with law enforcement agencies.

The physical location of our hospital was important in how our response unfolded. DHMC's unique rural location in northern New England added challenges specific to our location, which may provide an opportunity for other hospitals to consider. Although we were able to provide care, water, and transport during this tragedy on a warm day in September, caring for thousands of people outside a hospital during a typical subzero February would be a different story.

Communication during the event and how specifically to ask people to act were identified as a key area of improvement. We realized that our language and training around the various codes lacked clarity and specificity. As is familiar to many, in our hospital with Red, Blue, Black, Purple, and White codes, some staff (and certainly families and visitors) were not sure what to do in a "Code Silver." We worked to better define our language so that in a future event or in a drill, we would state in plain language that we have "an active shooter" or a "violence with weapons" event in progress with clear instructions on next steps. Our term "Run-Hide-Fight" was changed

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to "Avoid-Hide-Fight" to better reflect updated training and best practice for a future event. We revised our teaching and training materials and protocols, so that in the event of a similar situation, we could provide information in plain language, across numerous formats, and with some frequency to keep people apprised, even if the situation is not changing.

Our methods of ongoing communications were also reassessed. In our reviews, it became clear that the notification systems and the computer-based alerts seen on the computers of hospital staff were different from those at the medical school. Communication protocols on pagers and mobile phones and across social media such as Facebook and Twitter were redesigned. Though our institution has long had the ability to provide cell phone notifications during emergencies, not all employees and staff had elected to activate this feature. We also improved our speaker systems so that overhead paging and alerts could be heard outside the building.

Having improved personal reference materials on hand is important. We updated the cards attached to our ID badges with clear instructions about "active shooter" or "violence with weapon" situations. We also developed different response scenarios dependent on the campus location. An event in the ICU, for example, might require leaving the scene, although sheltering-in-place might be more appropriate for an offsite administrative building.

A significant challenge to our active-shooter situation was making sure that our staff, patients, visitors, and their families were adequately supported following the event. Learning from the experiences of other hospitals and communities, we undertook a deliberate process of preparedness and healing.[3] From our surgical ICU to our distant community group practices, we provided communication and avenues for personal support. Our Employee Assistance Program provided 24/7 support in a conference room in the surgical ICU and in other areas, on and off site, for all staff at Dartmouth-Hitchcock. The shooting affected those in the vicinity, as well as far away. Staff who had experienced domestic and other violence in their past were impacted in ways that required special care and attention. Some who were in adjacent rooms during the event were able to return to work immediately, whereas other staff, in separate units and more distant clinics, struggled and required leaves of absence. Through this event, we witnessed the personal and deep psychological impact of such violence. We held town halls, updated daily communications from our Incident Command Team, and maintained an open dialog across the organization.

In reflection, it is challenging to face this experience without the greater context of what we unfortunately experience all too often in America today. We have seen the spectrum from the shootings at Marjory Stoneman Douglas High School in Parkland, Florida, to the isolated events that rarely reach our national news and collective consciousness. It seems that we have already experienced a shooting at a school every week in the US.

There is even an overlap seen in domestic and mass shootings as we saw in the Sandy Hook Elementary School shootings in 2012, in which the tragic event was preceded by the shooter murdering his mother in her home.[4] Today, in the US, women are disproportionally the subject of domestic violence, and more than half of all killed are done so by a male family member. The presence of a gun in domestic violence situations increases the risk for homicide for women by 500%.[5-7] Our experience indeed mirrored this reality.

Many readers of this piece will recognize how similar their situation is to that of our hospital, that this happens elsewhere, not here. Although my institution has faced this as a tragedy that has tested our organization, one cannot also be deeply troubled by the greater impact of domestic and gun violence on healthcare and the American society today. Our staff and physicians have been witness and at times subject to such violence, and this experience has now made it even more poignant. Ultimately, and sadly, we feel that we are more prepared.

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