

## Simulation Training Leads to Life-Saving Intervention for True-Life Trauma Patient

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*(Emergency department staff assessing trauma wound, documenting clinical findings, and entering treatment orders during simulation training. Photography by Cindy Pivec.)*

The value of simulation training in preparing health care professionals for high-risk, low-frequency events was realized when a true-life gunshot wound (GSW) victim showed up at the Minneapolis Veteran Affairs Health Care System (MVAHCS). Following intensive simulation training, the MVAHCS staff's leadership, clinical teamwork, knowledge, skill set and timely treatment management were pivotal in the successful emergent stabilization of a critically injured trauma victim.

Thanks to the comprehensive simulation training in October 2022, the MVAHCS staff demonstrated exceptional clinical capabilities in caring for this trauma patient months later. The team's application of their acquired knowledge and skills were instrumental in providing immediate and effective treatment.

The patient was successfully stabilized and subsequently transferred to a trauma hospital for further care.

GSWs pose an increasing threat in society, necessitating preparedness even in non-trauma center facilities such as the MVAHCS. To ensure prompt and effective medical stabilization, the MVAHCS conducted an interprofessional GSW simulation in its emergency department (ED), involving VA federal police, blood bank personnel, physicians, anesthesia providers and nursing staff. This comprehensive simulation, led by dedicated simulation staff and medical students, aimed to test system protocols, evaluate clinical response readiness, and support quality improvement efforts.



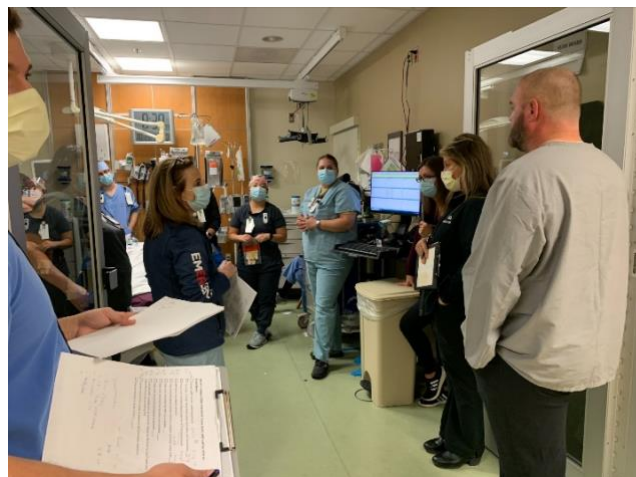
*Two VA police officers enter the ED during simulation training. Officer on left has gunshot wound in the back. Medical provider and RN awaiting their arrival. Photography by Cindy Pivec.*

During the simulation, two VA police officers entered the ED with a simulated GSW to one officer's back, initiating a rapid trauma assessment by the ED staff. Immediate interventions for hemorrhagic bleeding control, including emergent blood product administration, were identified and implemented. Through effective communication and utilizing the hospital's revised emergency blood release (EBR) and massive transfusion protocol (MTP), the staff demonstrated the ability to meet quality benchmark delivery times for both protocols.

The simulation not only highlighted the importance of standardized blood product ordering and communication but also emphasized the need for clearly defined roles and responsibilities during trauma events to optimize team dynamics. Participants valued the review of weapon safety during active shooter situations, improved their knowledge

and understanding of EBR and MTP and identified areas for growth, such as familiarity with the blood bank location and enhanced communication skills in high-stress situations.

Five months following the simulation, survey evaluations revealed notable outcomes. Participants reported increased confidence, improved communication skills, a heightened sense of safety regarding gunshot wounds, and a better understanding of their treatment. Furthermore, lessons learned from the simulation were instrumental in general understanding and process improvement. Multiple requests have been received to repeat this type of trauma simulation, emphasizing its value in ongoing training and development.



*Medical students, ED staff, police officers, an anesthesia CRNA, a procedural RN and the simulation team participate in post simulation debrief.*

However, the impact of this simulation training surpassed expectations when the real-life gunshot wound victim arrived at MVAHCS. The simulation's educational success underscores the importance of preparing staff for high-risk, low-frequency events and evaluating system processes.

As a partner to neighboring metropolitan hospitals, the MVAHCS remains committed to being clinically ready to support community patients requiring medical overflow. The simulation training's direct impact on saving a patient's life reinforces the significance of ongoing training and highlights the dedication of the MVAHCS staff to delivering exceptional care.