



Changing Your Operating Room Trauma Team From Green to a Machine

Amber Kratochvil MSN RN CNOR, Venessa Pillai MSN APRN, FNP-BC

BACKGROUND

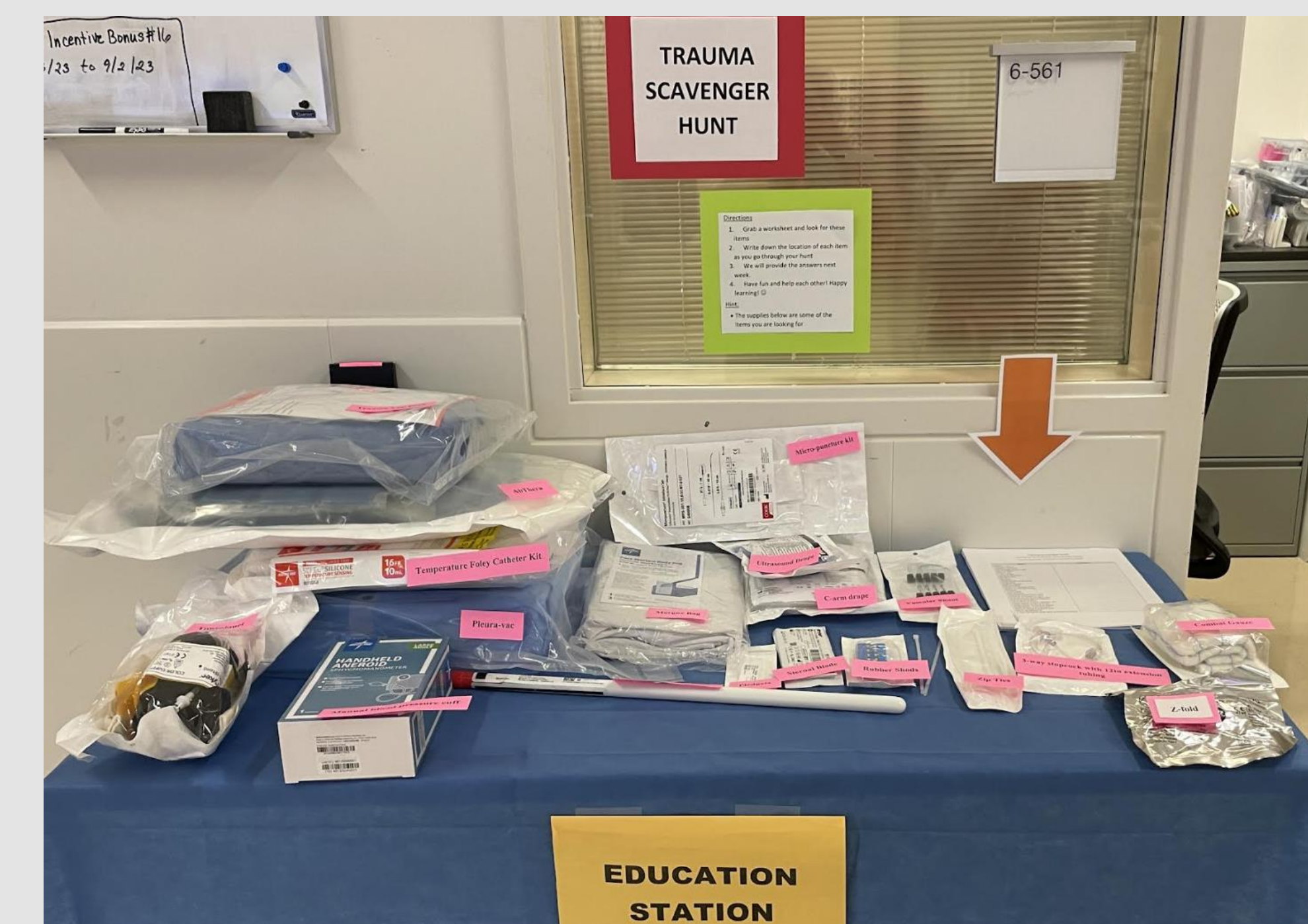
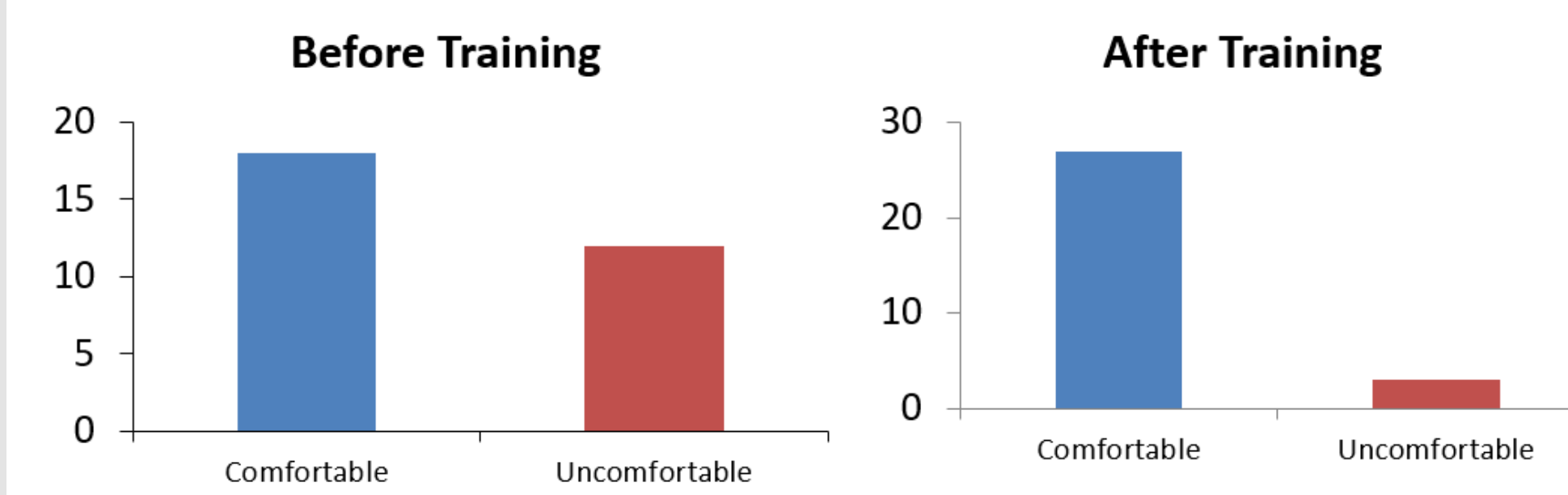
- In 2018, University of Chicago Medicine became a Level 1 Adult Trauma Center, serving one of the nation's highest volumes of penetrating and violence-related trauma on Chicago's South Side.
- From the first month treating nearly 300 patients, to the first year caring for close to 3,000 adult trauma patients, UChicago Medicine scaled rapidly to meet extraordinary community need.
- To address the need for comprehensive, high-acuity surgical trauma care, University of Chicago Medicine implemented a trauma training program built on teamwork, repetition, and coordinated performance. This program combined timed drills for charge nurses, live simulations for nursing teams in a safe environment, education stations for hands on training and trauma workflows, such as activating Massive Transfusion Protocol (MTP).

METHODS

- Committee of interdisciplinary members designed a trauma training program by first identifying key attributes needed in a trauma situation such as speed, accuracy and closed-loop communication. Because high-stakes trauma activations may be infrequent, simulation has been shown to be effective in improving trauma team performance (Henkel et al., 2024).
- The program involved:
 - 3-minute timed in-situ simulations focused on rapid workflow execution, including sterile field and OR preparation for trauma-specific scenarios (e.g., GSW to the chest versus leg).
 - Hands-on training for trauma instrumentation identification and rapid set-up of sternal saw, Finochietto, and Balfour retractors.
 - Practicing immediate activation of MTP
 - The OR Command Desk replicated real-time surgical case booking, rapid case scheduling, and decision-making in high-pressure environments, including management of multiple and simultaneous trauma activations.



Staff Comfort Level Before and After Hands-On Trauma Training



RESULTS

- After implementing the trauma OR training program, significant improvements were observed in staff readiness and workflow reliability.
- OR staff reporting a 30% increase in comfortability in a trauma scenario in the future after the hands on trauma.
- From July 2024-July 2025 there have been zero operating room readiness delays in trauma patients incoming to the Center for Care and Discovery Operating Room, despite an annual increase of the volume of trauma patients.
- Annual training refresher competencies take place on the following:
 - Hands on trauma setup with a timed trauma scenario drill
 - Individual trauma tray review and hands on education station
 - Drill and sternal saw blade demonstration with hands on education station
 - Massive Transfusion Blood Protocol training
 - Charge RN drills of trauma scenarios to book and staffing simulations

IMPLICATIONS

There is not a one size fits all trauma scenario to train on. We utilized a scenario involving a mid 20's patient, with a gun shot wound to the chest, requiring a sternal saw, continuous MTP and trauma trays 1-4.

Training a staff with close to 200 members is difficult for scheduling the hands on training time. Requires effort and time to complete.

NEXT STEPS

- To sustain high reliability in trauma OR activation, we will implement annual training sessions within clinical teams to maintain familiarity with instrumentation and crisis workflows.
- Staff who are new and on orientation will undergo this training to build confidence, improve readiness, and ensure a smoother transition into real-world trauma care. This prepares them for independent trauma response and reduces hesitation during live activations.

REFERENCES

Henkel, E. B., Lemke, D., Rubalcava, D., Naik-Mathuria, B., Gautreaux, K. M., Eggers, J., & Doughty, C. (2024). Multidisciplinary simulation for blunt and penetrating pediatric trauma utilizing standard and rapid cycle deliberate practice models. *MedEdPORTAL*. https://doi.org/10.15766/mep_2374-8265.11390

ACKNOWLEDGEMENTS

We extend our sincere gratitude to the OR educators for executing and leading every component of this training program. We also deeply thank the nursing staff for their willingness, enthusiasm, and commitment to learning, all in service of delivering the highest level of care to trauma patients.