10 Combat Medical Readiness: The Rush University Medical Center Advanced Trauma Training Program

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Background: Combat medical training is essential for U.S. Military Medical Service Members from both the Active and Reserve Components as it increases combat casualty survival while decreasing morbidity. Rush University Medical Center (RUMC) provides U.S. National Guard Service Members the Advanced Trauma Training Program (ATTP), a one-week course centered on trauma-care delivery, procedural competency, and military resiliency combating post-traumatic stress disorder (PTSD).

Objectives: The primary outcome of this work was characterizing course graduate feedback and identifying-self-reported belief of medical readiness.

Methods: ATTP graduates from 2010-2022 electronically completed an anonymous, on-line survey. Specific feedback was obtained on the program's content, instructor impact, and level of combat medical preparedness.

Results: Over the program's ten year history, RUMC has trained 876 U.S. National Guard Members with 61.1% being male. The prominent medical backgrounds are EMT-B (40.1%) followed by RN (27.3%) and PA (19.6%). Among course graduates, 49.2% had never been deployed and of those previously deployed, 95.6% rated ATTP as important to their combat medical experience. The average number of deployments per class was 9.75. In terms of deployment preparation, students rated the course as important to both personal (93.2%) and unit (97.0%) preparedness with a 98.5% likelihood to recommend. Students remarked the live-tissue and cadaver lab as extremely important (84.4%) while noting a post-deployment PTSD lecture as important (95.9%).

Conclusions: The Rush University Medical Center Advanced Trauma Training Program began as a targeted intervention to medically prepare U.S. Military Medical Service Members. These results suggest graduates believe this training is positively impacting their combat medical readiness and resilience. Further investigation with course graduates that were subsequently deployed to combat is ongoing.

11 Dental Emergency Management: An Emergency Medicine Workshop Curriculum

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Introduction: Dental emergencies are common among Emergency Department patients. Emergency Physicians often treat dental pain and perform temporizing procedures before definitive care. We considered the need for hands-on training to perform dental procedures in our residency and created and studied a unique simulation-based curriculum.

Objectives: The primary objective of our study was to assess resident confidence in, and knowledge of management of dental emergencies and performance of common dental blocks. We hypothesized that resident confidence, knowledge, and skill proficiency would improve after implementing our curriculum.

Methods: The workshop included five simulation-based stations: Performance of facial nerve blocks; post-extraction bleeding management; tooth preservation and reimplantation; tooth splinting; and treatment of dental fractures, using commonly available materials. Each station included 20 minutes of instruction and hands-on practice. Residents completed pre- and post-session surveys assessing comfort and medical knowledge. We also compared results of a skills assessment to identify and demonstrate facial nerve blocks between residents assessed before and after instruction.

Results: 27 residents (8 PGY-1, 9 PGY-2, 10 PGY-3) participated in the teaching session. On average, residents' confidence in managing dental emergencies improved from 3.09 to 7.33 on a 10-point Likert scale. Comfort with dental blocks improved from 4.55 to 7.96. Participant knowledge regarding dental emergencies improved from 66% to 92%. The average score for participants who completed the skills test after instruction was 70% compared to 43% for those who were tested before instruction.

Conclusions: After participating in this workshop, learners reported increased confidence and showed improved knowledge and skill performance. We believe this is an effective hands-on curriculum that residency programs can use in place of traditional lectures.

Figure.