

Trauma Education for Emergency Medical Services in a COVID World

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Introduction

When the pandemic hit trauma patients did not stop coming, in fact many hospitals saw their numbers grow throughout the past year. The need for trauma education is ongoing even in times that everything else is on hold. In the St. Louis area, EMS personnel struggled to find continuing education (CE) opportunities as many in person events were cancelled.

Goals

- Expand trauma education to regional EMS personnel through the SSM Health Saint Louis University Hospital Trauma Training Institute by increasing accessibility through virtual platforms.
- Identify knowledge deficits across the region to drive future trauma education for first responders.

Background

In the past, educational opportunities for EMS through the SSM Health Saint Louis University Hospital Trauma Training Institute were limited to the annual Trauma Symposium. The last Symposium was held in November 2019 and is currently on hold due to COVID. A virtual Symposium was presented in collaboration with other regional Trauma Centers in 2020 but no EMS credits were able to be provided. There is a need to provide consistent trauma education opportunities for EMS personnel that are easy accessible.



Virtual EMS Trauma Education - Process in Action

The Injury Prevention and Outreach Coordinator (IPOC) creates a monthly trauma newsletter which is currently distributed via e-mail to nurses and physicians at our regional trauma centers for CE opportunities. This educational opportunity was expanded in partnership with EMS liaisons to distribute city-wide to local EMS organizations as a virtual CE opportunity. Topics for the trauma newsletters were reviewed to ensure they are now inclusive of information relevant to EMS personnel.

Based on the continued success of trauma newsletters for EMS credit the IPOC, in partnership with SSM EMS liaisons, created a Trauma Case Study presentation to be presented live on the Zoom platform for additional trauma education. Three cases were presented which included interactive review of the trauma patient assessment, including critical thinking components in each case. The cases were varied to include review of needle decompression, difficult airway, brain injuries, tourniquet use, TXA, mass transfusion, spinal stabilization, and neurogenic shock. Questions were posed throughout the cases so the IPOC could review thought processes and correct any misinformation.

The case studies were presented 19 times to cover multiple shifts for 10 different fire departments. At the conclusion of the case studies, the topics were reviewed and the next trauma newsletter addressed the topic of neurogenic shock. This was identified as the most common knowledge deficit during the case studies. Future continuation of this EMS education program is to include new case studies and continuous review of knowledge deficits to address with more in depth education through the trauma newsletters.

Measures for Success

Success of the trauma newsletter program was measured by the amount of newsletters returned with correct responses for CE credits. Between July 2020 and May 2021, approximately 1,100 newsletters were returned representing 38 different EMS crews.

Success of the Trauma Case Studies was measured by the number of attendees who received the live education. The 19 case study presentations were completed in the span of 7 weeks in which 140 attendees received the education.

An unexpected result of the case studies was a request by another EMS region to present these cases live in their fire departments while observing COVID precautions. Since this initial abstract, the Trauma Case Studies presentation was given on 9 additional dates covering 8 more EMS crews with 120 participants. Total participation from August-December 2021 was 260 EMS personnel.

Many EMS personnel who attended the Trauma Case Studies enrolled in our free virtual Trauma Symposium which reached 475 participants nationwide from November 30-December 14, 2021. This Symposium provided an additional case presentation highlighting EMS response to a trauma patient.

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