



## The Menegazzi Scientific Sessions: Research Abstracts from the 2023 National Association of EMS Physicians Annual Meeting

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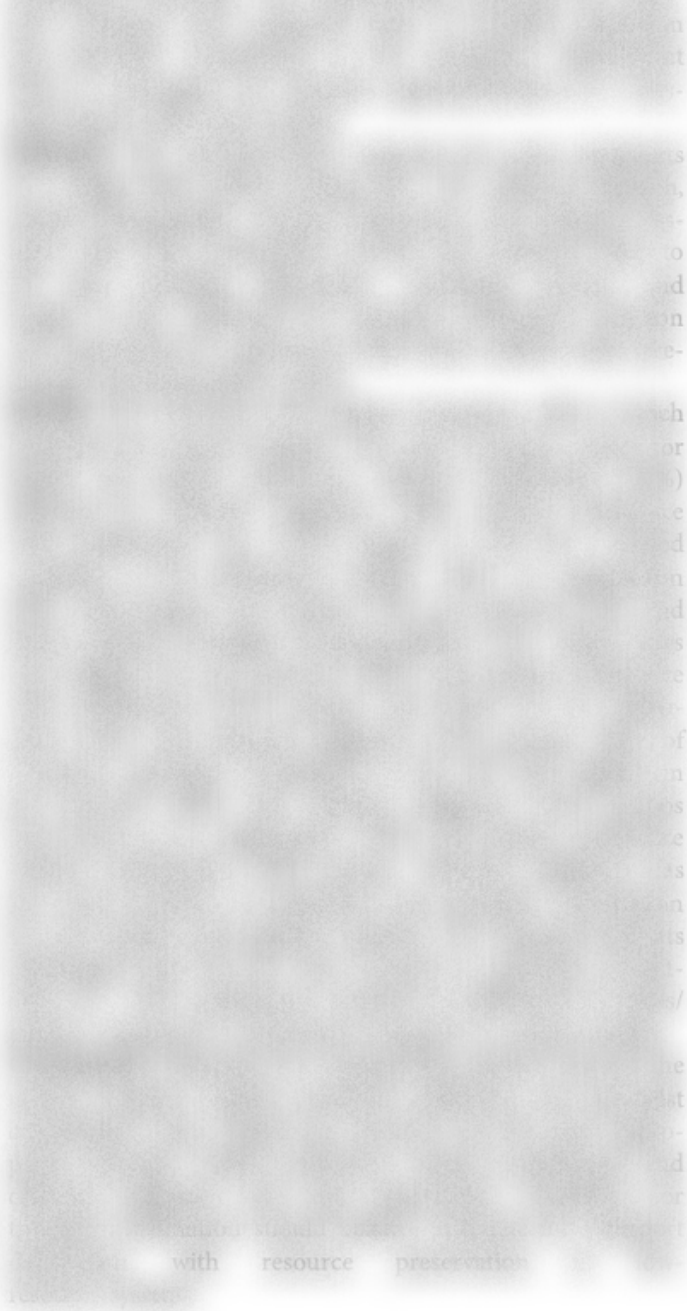
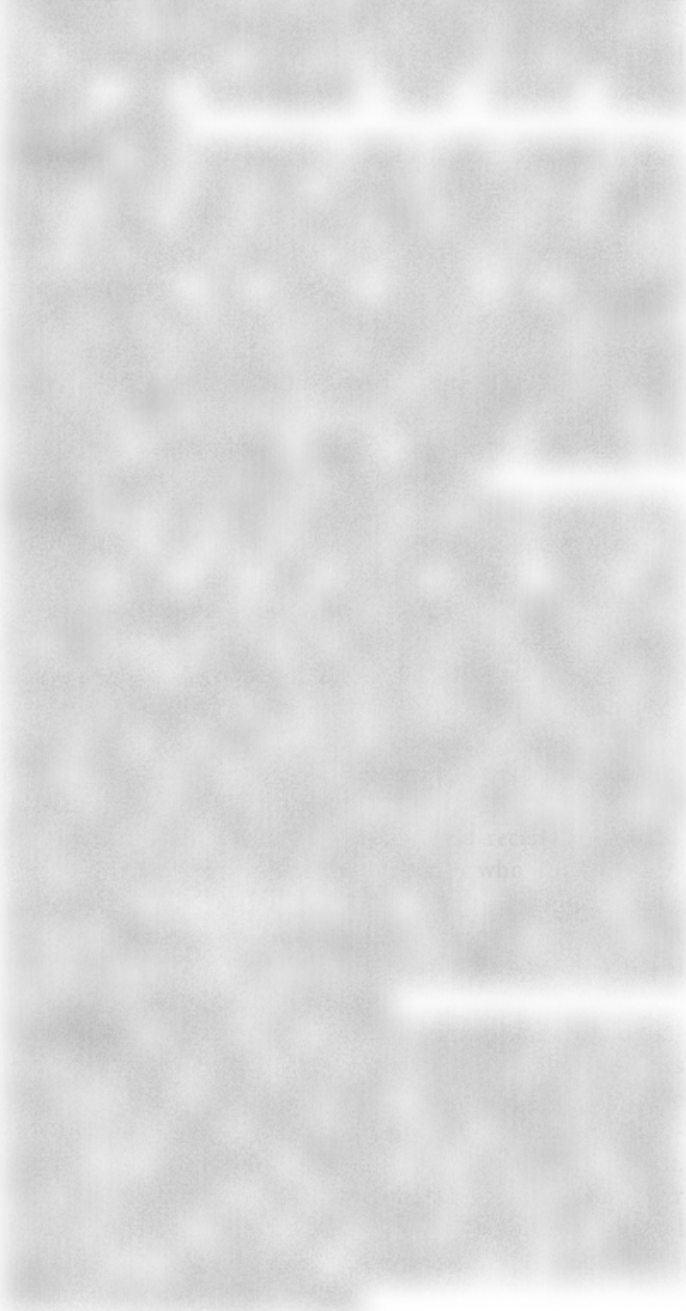
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hospitalized patients, but the prehospital approach

described in this study.



### 173. Prehospital Blood Transfusion during Trauma Resuscitation in a Ground Ambulance Service: A Case Series

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**Background:** Hemorrhagic shock remains a leading cause of death in the United States. While several military studies have shown improved mortality after in-field blood transfusion, the results of civilian trials have been mixed. Consequently, EMS agencies have been reluctant to incorporate TCCC guidelines for prehospital transfusion into their

**Background:** Hemorrhagic shock remains a leading cause of death in the United States. While several military studies have shown improved mortality after in-field blood transfusion, the results of civilian trials have been mixed. Consequently, EMS agencies have been reluctant to incorporate TCCC guidelines for prehospital transfusion into their

everyday practices. The following case series describes the experience of our paramedics over 8 months after initiating packed red blood cell (pRBC) transfusion during trauma resuscitation.

**Methods:** A retrospective review of prehospital and hospital records from October 2021 through June 2022 was performed on 51 patients. Items analyzed include demographic characteristics, response intervals, volume of pRBCs administered, time to transfusion, transport interval, rate of transfusion reactions, and 72 hour mortality rate.

**Results:** Clinicians administered prehospital blood products to 43 males and 8 females with an average of 36.1 years of age. Forty seven patients (92%) had sustained penetrating injuries. Paramedics initiated blood transfusion on average 24.3 minutes after the PSAP call was received. A total of 1.8 units (536 ml) of pRBCs were administered in less than 10 minutes. Scene interval was 8.5 minutes and ground transport interval was 10.3 minutes to the Level I trauma center (average mileage = 6.4 mi). Total time on task per patient was 34.4 minutes. Zero transfusion reactions were observed in 51 patients. After 72 hours of hospitalization, mortality was 35% within this series—29% of individuals expired in the ED. Excluding cases that developed cardiac arrest in the prehospital setting (15/51), 92% of patients who maintained spontaneous circulation prior to hospital arrival were alive at 72 hours (33/51). Discussion: Preliminary outcomes within this case series suggest an advantage to prehospital blood transfusion amongst a subset of EMS patients. For individuals with hemorrhagic shock secondary to penetrating injury, our agency has shown that transfusion during ground transport is not only feasible but also potentially life-saving. More rigorous analysis is needed to prove the benefit of this intervention. Meanwhile, our case series advances the literature by proposing that short transport intervals and rapid pRBC transfusion may improve mortality within a fast-paced urban environment.

#### 174. Public Acceptance and Consensus regarding

Emergency Medical Services in a Rural Community

**Christina A. Johnson, MD, MSPH**  
 Kristin L. Johnson, MSW, MEd  
 Gregory W. Johnson, MD, MSPH

**Background:** Public acceptance and consensus regarding emergency medical services (EMS) are important factors in the development of EMS systems. The purpose of this study was to assess public acceptance and consensus regarding EMS in a rural community.

**Methods:** A survey was conducted in a rural community to assess public acceptance and consensus regarding EMS. The survey included questions regarding the need for EMS, the role of EMS, and the willingness to pay for EMS services. The survey was conducted in a rural community with a population of approximately 10,000 people. The survey was conducted in a rural community with a population of approximately 10,000 people. The survey was conducted in a rural community with a population of approximately 10,000 people.

approval. The Pediatric Dose Optimization for Seizures in EMS (PEDOSE) study was a randomized, controlled, stepped-wedge trial that compared the effectiveness of a standardized protocol for the treatment of pediatric seizures in the prehospital setting. The study included 20 urban EMS agencies and 20 rural EMS agencies. The study was conducted in a rural community with a population of approximately 10,000 people. The study was conducted in a rural community with a population of approximately 10,000 people. The study was conducted in a rural community with a population of approximately 10,000 people.

#### 175. The Role of EMS in the Prehospital Setting

**Timothy J. Veer, MD, PhD**  
 Vithayalil S. Arunthanasingh, MD  
 Martin S. H. Chi, MD

**Medical Director, Florida Department of Health**

**Objectives:** The purpose of this study was to assess the role of EMS in the prehospital setting and to identify areas for improvement. The study included 20 urban EMS agencies and 20 rural EMS agencies.

**Background:** EMS is a critical component of the healthcare system, providing essential services to patients in the prehospital setting. The purpose of this study was to assess the role of EMS in the prehospital setting and to identify areas for improvement. The study included 20 urban EMS agencies and 20 rural EMS agencies.