

Simulation and Advanced Skills Center (SASC)

# Transforming EMS Education through High-Fidelity Simulation Michael G. Simon, MBA, NRP

Simulation Showcase 2024

Background

Cleveland Clinic EMS provides medical direction for 93 agencies and supports over 2,900 EMS providers across Northeast Ohio. Historically, EMS education relied heavily on lecture-based methods that often failed to engage learners or translate knowledge into practical application, leaving providers underprepared for the high-pressure demands of prehospital care where rapid, decisive action is critical.

In 2024, Cleveland Clinic EMS launched a transformative educational program to modernize its approach and address these challenges. This new model emphasizes active participation, experiential learning, and standardized instruction to equip EMS providers with the skills needed to deliver high-quality care, improve patient outcomes, and set a new benchmark for prehospital education.

The success of this program is driven by the expertise and dedication of Cleveland Clinic's EMS education team, which includes 28 EMS Coordinators and 33 EMS Medical Directors. This year, all EMS Coordinators completed the Simulation Educator Training Workshop, using the principles learned to create scenarios that are relevant, realistic, and challenging. These scenarios are carefully tailored to reflect the unique demands of prehospital care, fostering critical thinking and practical skills among providers.

### **Contact information**

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Simulation Education Network

# Description

Cleveland Clinic EMS has transformed prehospital education with a dynamic, simulation-based program that delivers immersive, high-quality training experiences. Monthly, EMS providers engage in high-fidelity simulations at their fire stations, recreating realistic emergency scenarios with live patient role players and authentic equipment. These scenarios cover key topics such as trauma, cardiac arrests, respiratory emergencies, and pediatric care, ensuring comprehensive training aligned with state and national recertification standards.

Each simulation is preceded by a one-hour, physician-led didactic course delivered through Prodigy EMS, a platform designed specifically for EMS education. This blended approach combines foundational knowledge with hands-on practice, enabling providers to refine their decision-making and critical skills. Nearly 100% of simulations are physician-led, with EMS Coordinators—trained in scenario-based learning—designing challenging, relevant sessions to prepare providers for real-world demands.

The program emphasizes standardization and accessibility, centralizing education through Prodigy EMS to ensure consistency across 93 affiliated agencies. By delivering training directly to fire stations, the program eliminates barriers to participation while fostering interagency collaboration. Cleveland Clinic EMS's innovative approach equips providers with the confidence and competence to manage complex emergencies, setting a new standard for prehospital care and improving patient outcomes across Northeast Ohio.







## Impact

#### **Strengths Observed:**

- Enhanced Engagement: Providers report significantly improved engagement compared to traditional lecture-based training.
- Increased Confidence: Hands-on simulations have strengthened providers' ability to manage complex emergencies with greater confidence.
- **Improved Skills:** Participants demonstrate refined decision-making and practical skills, directly applicable to real-world scenarios.
- Standardized Training: Centralizing education through Prodigy EMS ensures consistency across 93 affiliated agencies, reducing variability in performance.
- **Collaborative Learning:** Structured debriefings promote teamwork and continuous improvement among EMS providers.
- **Better Patient Outcomes:** The program's focus on experiential learning and high-fidelity scenarios directly contributes to enhanced care quality and patient safety across Northeast Ohio.





### **Growth Opportunities**

- **Mobile Ambulance Simulators:** Introduce on-site training environments that replicate the challenges of providing care in confined, moving spaces.
- Advanced Manikins: Incorporate higher-fidelity manikins capable of simulating complex medical and trauma scenarios for enhanced realism.
- **Commitment to Excellence:** Focus on advancing provider readiness, improving patient care, and setting the benchmark for the future of EMS training.
- **Mixed Reality Integration**: Explore the use of augmented and virtual reality technologies to create immersive, interactive training scenarios that bridge physical and digital environments.

