Survey of Satisfaction, Educational Impact, and Education Preferences Following an Anaphylaxis Simulation in Pre-Hospital Providers

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Background

• The prevalence of anaphylaxis in the United States is 1.6% 1
• There is a low rate of pre-hospital epinephrine administration for anaphylaxis2

Purpose

As part of a larger educational intervention, an anaphylaxis simulation session (SIMS) was created for a large metropolitan emergency medical services (EMS) agency

Methods

• SIMS were led by 4 teams of 1 physician and 1 simulation coordinator who rotated through 8 locations
• EMS crews were called out of service for 30 minutes later via service
• A simulation scenario focusing on a case of atypical anaphylaxis was administered:
  ✓ For a team called EMS for 2 year old with a known nut allergy
  ✓ Mother called EMS for 2 year-old with unknown ingestion at a party
  ✓ Child developed rapid onset of emesis with unknown ingestion at a party
  ✓ Wheezing present on initial exam
  ✓ If crew did not administer epinephrine within 3 minutes, child developed change in behavior and hypotension
• Debrief focusing on reviewing diagnostic criteria, IM epinephrine use as initial treatment, epinephrine dosing, and demonstration of epinephrine autoinjector use
• Surveys were distributed to participants 4 months later via REDcapTM

Results

• 507 individuals completed the simulation
• 95/507 (19%) completed the survey
• See data summary in figures 1-4

Discussion

• As a tool for knowledge and skill acquisition, SIMS are preferred by pre-hospital providers
• SIMS performed during active duty hours were well-received and associated with self-reported increase in knowledge and application of this knowledge in the field

References

5. The environment created by the SIM team was conducive to learning
6. SIM improved my knowledge regarding recognition of anaphylaxis
7. SIM improved my knowledge regarding management and treatment of anaphylaxis
8. SIM improved my knowledge regarding proper use of epinephrine autoinjectors

Funding and Acknowledgments

• This study was funded by HRSA UG1MC28844-01-00 and supported by The Clinical and Translational Intramural Funding Program through the Abigail Wexner Research Institute at Nationwide Children’s Hospital (Columbus, Ohio)
• We would like to acknowledge the support of the Columbus Division of Fire, Department of Public Safety, (Columbus, Ohio)

Figure 1. Educational Impact

Figure 2. Education Preferences

Figure 3. Satisfaction

Figure 4. Patient Care Impact