



Research Week 2020

The Effect of an Educational Seminar on Medical Director and First Responder Attitudes Surrounding the Practice of Hands-on Defibrillation

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Keywords

hands-on defibrillation, CPR, safety, attitudes

Abstract

Introduction

Hands-on defibrillation (HOD) is the practice of providing uninterrupted chest compression during the delivery of defibrillator shocks. The practice of HOD may be safer than traditionally thought and improve outcomes by minimizing interruptions to compressions, but adopting such a change in long-established protocols would require healthcare provider buy in. This research project investigates the attitudes of first responders and medical directors on the matter.

Methods

This was a survey-based study conducted during the 2019 Oregon Statewide EMS Conference and 2019 National Association of EMS Physician Medical Directors Oregon Forum. Participants were asked to complete a paper survey regarding HOD before and after attending an educational seminar. The educational seminar presented a summary of a comprehensive literature review on HOD. Survey data was analyzed by a statistician using SPSS to perform Wilcoxon signed ranks tests and Mann-Whitney U tests.

Results

A total of 43 participants responded to the survey including MD/DO (16), Firefighter-Paramedic/EMT (12), and Paramedic/EMT (15). Within this population there were EMS Medical Directors (17) and Fire Chiefs (6). Survey data revealed statistically significant changes in participant attitudes regarding the safety of HOD ($p < 0.001$) and willingness to personally perform HOD ($p < 0.001$). Regarding bias, 81% of participants thought the information session provided a balanced perspective on the risks and benefits of HOD, 17% were neutral, and 2% disagreed. After the educational seminar, 94% of medical director respondents thought that it was safe to perform HOD with insulating gloves. Among participants, 76% reported that the educational seminar influenced their attitudes.

Conclusions

Providing first responders and medical directors with evidence-based data on HOD influenced their attitudes and led to increased willingness to personally perform HOD.

