

64. Difficulties with Advanced Airway Procedures Due to Portable Suction Equipment: Survey of Paramedics

Richard Kozak, MD, Walter Bean*
 Department of Emergency Medicine, University of California-Irvine Medical Center, Orange, California USA

Objective: The objective of this study is to identify potential problems associated with prehospital advanced airways by assessing the utilization, complications, and education associated with the use of portable suction equipment.

Methods: Fifty-one paramedics serving a university medical center were anonymously surveyed. The survey consisted of questions regarding: utilization, difficulties, bad outcomes, and training associated with portable suction equipment.

Results: Six of the paramedics set up and check suction equipment for every airway procedure. The rest perform daily checks or rarely test equipment. Twenty-three medics reported equipment malfunctions: dead battery (12), improper set-up (5), clogged tubing (6). Twenty-six of the paramedics reported having at least one bad outcome due to malfunction of suction equipment. These were cases of failed intubation following at least one attempt. Seven bad outcomes were attributed to lack of suction equipment at scene. Paramedics carry suction equipment to the scene for less than twenty-five percent of calls. Three suction units were in use: S-SCORT (32), S-SCORT Jr. (11), and Impact (8). There was no difference in utilization or bad outcomes by unit type. Ninety-eight percent of the paramedics reported some type of formal training on use of suction equipment during airway procedures.

Conclusion: This study shows that suction equipment malfunction is common for paramedics and results in failed intubations. Furthermore, there is under utilization and infrequent checking of suction equipment. The results of this study will direct further investigation into the utilization and quality of portable suction.

72. The “EMS Miss”–Frequency and Reasons Underlying Seriously Ill Patients Lack of Utilization of the EMS System

Timothy W. Jahn, MD, John F. Brown, MD, Steven W. Miller, RN, Peggy McNulty, RN*
 Naval Medical Center, San Diego, California USA

Purpose: To determine the reasons why patients with potentially serious complaints present to the Emergency Department by a non-EMS mode of transportation.

Methods: Prospective patient survey distributed during a one-month period to patients presenting to a military emergency department. Surveys were entered into a data base program and descriptive, parametric and non-parametric statistical tests utilized to examine characteristics of the two groups.

Results: The only significant difference between the ambulance and non-ambulance groups of the 158 participants was patient sex.

Parameter	Ambulance (21)	Non-Ambulance (137)
Age (years)	46	37
Sex (%) <i>p</i> = 0.029	84 male, 16 female	47 Male, 53 Female
Household Income	Mode: \$35–50,000	Mode: \$20–35,000
Prior 911 use (%)	47.6	36.5

A 5-point Likert scale was utilized to determine patient perception of appropriate ambulance utilization:

Reasons to Call 911:	Average 1 (agree) - 5 (disagree)
Unconsciousness	1.18
Chest Pain	1.75
Minor MVA	3.13
Reasons To Not Call 911:	Average 1(agree) - 5(disagree)
HMO Directs Otherwise	3.40
Too Expensive	3.31
Easier to Drive	2.80

Conclusions: Significant differences in ambulance patient gender may be due to selection bias. There was a trend noted among ambulance users to be older, have higher income, and have previously used EMS than non-ambulance users. Patients did have a good understanding of when to call 911 and in the military population were more likely not to utilize an ambulance for convenience rather than financial reasons.