Sigma's 30th International Nursing Research Congress
Multidisciplinary Approach to Managing Difficult Airways in Emergency Departments

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Purpose: Difficult airways comprise a minority of emergent airways (3% of 6000 patients) in critical care settings such as Emergency Department (ED). However, these are high stake situations as they can result in sentinel events if not managed effectively. The aim of our study was to describe the experience of the DART in the ED and assess its clinical outcomes.

Methods: A retrospective review of the patient electronic medical records was done. Patients were included in the study if they were 18 years or older, managed by a DART in the emergency room to establish an airway between July 2008 to June 2013. Patients were excluded from the study if a DART was not called and were managed by the emergency physicians without any assistance from additional experts. Stata Intercooled Version 14 was used to analyze the data and provide descriptive statistics. Frequencies and percentages were calculated for categorical variables and mean and standard deviations were calculated for continuous data. Appropriates tests were used for non-parametric data.
Results: Ninety eight patients met the inclusion criteria. The primary indication for DART activation was anticipated difficult airway without a prior history of the difficult airway n=49 (50%). DART was activated by ED physicians after encountering difficult airway n=47 (48%). Only 80 required airway management following airway evaluation by the DART. Most difficult airways utilized direct laryngoscopy as the preferred technique n=28 (35%), followed by videolaryngoscopy n=20 (25%), and Fiberoptic laryngoscopy n=17 (21%). Direct laryngoscopy was the first choice; however, it was the most common unsuccessful technique among patients with difficult airways. Videolaryngoscopy proved to be the most common successful technique. A total of 17 patients required surgical intervention. The maximum attempts required to establish an airway by DART was 4 attempts.
Conclusion: DART was able to secure the airway of all 80 patients through various techniques, many of which are not generally employed by ED physicians. Given the efficiency of the DART, it would be ideal to have a multidisciplinary team to assist in emergent airways. However, implementation of DART may not be feasible in all critical care hospital settings. Further research is required to establish its feasibility.

Title:

Multidisciplinary Approach to Managing Difficult Airways in Emergency Departments

Keywords:

Advanced Airway Techniques, Difficult Airway and Multidisciplinary Approach

References:

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Abstract Summary:

The aim of our study was to describe the experience of the Difficult Airway Response Team in the Emergency Department and assess its clinical outcomes. DART was able to secure the airway of all 80 patients through various advanced techniques supported by nursing personnel.

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Author Summary: I have been a nurse for the last 21 years and a critical care nurse caring for mechanical ventilated patients with a tracheostomy since 2000. I have published 34 articles focusing on airway management of patients with artificial airways. My productivity is further

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