POSTER 011.
Do ALS Providers Need Vital Signs to Assess and Manage Prehospital Patients?

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Purpose: Routine vital signs (VS) assessment is considered a fundamental component of patient assessment. This study was undertaken to determine if advanced life support EMS providers can manage patients without VS.
Methods: Twenty-seven paramedics and 37 intermediates were presented with 20 randomized patient scenarios that did not include VS. They were asked to identify all interventions they would perform for each patient. Six weeks later, the same scenarios were presented in a new order, with VS, and the participants again identified the interventions they would perform. The frequency of specific interventions for each patient in the no-VS group was compared to the frequency in the VS group using chi-square or Fisher's Exact test.
Results: There were two cases for which paramedics significantly changed their interventions when given VS. They were more likely to run IVs wide open in an unresponsive 86-year-old woman with an unobtainable blood pressure ($p = 0.024$), and less likely to immobilize a 65-year-old man who had fallen the night before ($p = 0.001$). There were three cases for which intermediates significantly changed their interventions when given VS. They were more likely to start two IVs for a 69-year-old with near syncope ($p = 0.020$), less likely to run IVs wide open for a 32-year-old gunshot victim ($p = 0.016$), and they, too, were less likely to immobilize the 65-year-old man who had fallen the night before ($p = 0.013$).
Conclusion: Vital signs do not significantly affect interventions for most prehospital patients, and may not be necessary.

POSTER 013.
The Quick-Look Airway Classification—A Useful Tool in Predicting the Difficult Out-of-Hospital Intubation: Experience in an Air Medical Transport Program

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Objectives: To show that initial, direct airway visualization classification of prehospital patients is a useful tool to predict the difficulty of oral intubation in the prehospital environment.
Methods: Retrospective, descriptive study of 429 intubated air medical trauma patients between 4/91 and 12/93. Air medical personnel, using the best visualization obtained on initial direct laryngoscopy, classified airways grades I–IV based on the system proposed in the anesthesia literature by Cormack. Other recorded data for each grade included number of intubation attempts and serious complications.
Results: The incidence of grade I–IV airways was 66% (277), 21% (92), 9% (37), and 5% (23), respectively. The success rate for oral intubation by airway grade was 98.9% (grade I), 97.8% (grade II), 86.5% (grade III), and 43.5% (grade IV). The complication rate, the average number of attempts per intubation, and the cricothyroidotomy rate increased with increasing grade. Spearman's correlation was 0.45 for complications and 0.52 for attempts.
Conclusions: In this air medical transport service, direct visualization classification can help predict the difficult intubation requiring more attempts, resulting in more complications, and an increased rate of cricothyroidotomy, or failure to intubate. These findings may impact future prehospital intubation guidelines, and they are used in this program to predict when and how rapidly cricothyroidotomy or other alternative airway management strategies should be employed.

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