

Oral presentation

Pre-hospital recording of vital data in the severely head injured patient

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Introduction

Traumatic brain injury (TBI) is associated with substantial morbidity and mortality. Recent guidelines on pre-hospital management of TBI emphasize the prevention of hypotension and hypoxemia [1]. Our aim was to assess pre-hospital documentation of vital signs among patients with suspected traumatic brain injury.

Methods

Retrospective analysis of prospectively collected data from the trauma registry at St. Olavs University Hospital, Norway in the period from 1st Jan 2004 to 31st Dec 2006. Patients with a Glasgow Coma Score (GCS) < 9 either pre-hospital or in the emergency department were selected for further analysis. Pre-hospital recordings of vital signs, i.e. GCS, systolic blood pressure (sBT), respiratory rate (RR), heart rate (HR) and oxygen saturation (SaO₂) were examined.

Results

1237 trauma patients were identified in the trauma registry during the study period. Of these, 105 (8%) patients had a GCS < 9. 32 (30%) were female. The majority (89%) was treated and accompanied by an emergency physician. The proportion of patients whose vital signs were documented is presented in Table 1:

Table 1:

Variable	GCS	sBT	RR	HR	SaO ₂
Fraction	92%	71%	52%	78%	Not available*

Median Glasgow Outcome Scale [2] was 3 (range 1–5), and 24 (23%) patients died from the injuries. *SaO₂ was not a trauma registry item, but will be introduced.

Conclusion

Patients admitted to our hospital with potentially severe head injury have high lethality or severe sequelae. We discovered a lack of documentation of vital signs in this group of patients. The importance of recording and documenting vital signs according to recent guidelines for management of traumatic brain injury needs to be emphasized.

References

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