

Poster presentation

## GCS in the prehospital setting is an adequate predictor of outcome in comatose patients

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### Introduction

Glasgow Coma Scale score (GCS) obtained in the hospital has been shown to predict mortality well [1]. However, the performance of GCS in the prehospital setting has not been previously studied. We hypothesized that GCS would be an adequate method for triage and for outcome prediction also when obtained prehospitally. It is crucial to identify lifethreatening emergencies in the very early phase in order to shorten the time for initial assessment and further in-hospital visitation, as the time spent in the Emergency Department (ED) is related to mortality [2].

### Methods

Using amPHI<sup>®</sup>, the regional prehospital record-keeping system, we identified patients with an initial prehospital GCS < 9 over a 3-month period. Further information on these patients was collected from the Patient Administrative System and through review of the paper charts. Only patients admitted to the ED at Aalborg Hospital were included. Patients under 16 years were excluded.

### Results

60 patients were identified of which 23 (38%) were women. The overall mortality was 35%. The survivors were younger ( $p < 0.001$ ) and had a higher prehospital GCS ( $p = 0.003$ ) than non-survivors. Patients staying in-hospital had a significantly lower prehospital GCS ( $p = 0.015$ ) compared to patients dismissed from the ED. Poisoning represented the most common aetiology. A subgroup analysis showed that alcohol was involved in 30% of all cases and in 82% of the poisonings.

### Conclusion

Patients with the lowest prehospital GCS-score had the highest mortality. There were no differences between the admissions to the intensive care unit and to the general ward in this material. We believe GCS to be a well-established score to help triage and communication between a prehospital setting and receiving emergency department.

### References

1. Bastos PG, Sun X, et al.: **Glasgow Coma Scale Score in the evaluation of outcome in the intensive care unit: findings from the Acute Physiology and Chronic Health Evaluation III study.** *Crit Care Med* 1993, **21**(10):1459-65.
2. Goldhill DR, et al.: **The longer patients are in hospital before Intensive Care admission the higher their mortality.** *Int Care Med* 2004, **30**:1908-13.