

Oral presentation

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## Hypothermia in injured patients – does it happen often?

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### Introduction

Hypothermia is an independent predictor of increased morbidity and mortality in severely injured patients, mainly due to negative effects on coagulation [1]. Hypothermia can result from trauma itself, reduced tissue perfusion, pre-hospital interventions or lack of such. Efforts to increase body temperature by insulation and active re-warming can be life-saving if the risk of hypothermia in these patients is acknowledged. The aim of this study was to investigate the prevalence and severity of hypothermia in a trauma population.

### Methods

Retrospective analysis of data collected prospectively from the trauma registry at St. Olavs University Hospital, Norway, from 1<sup>st</sup> Jan 2004 to 31<sup>st</sup> Dec 2006. Hypothermia was defined as temperature  $\leq 36^{\circ}\text{C}$  [2].

### Results

1237 trauma patients were identified during the study period. Among these, 67% (N = 827) had their temperature registered in the emergency department. Overall median temperature was  $36.5^{\circ}\text{C}$  (range 15–39.2), and 218 patients (26%) were hypothermic with a median tem-

perature of  $35.6^{\circ}\text{C}$ . Physician staffed transport (consultant anaesthetist) treated 138 patients (63%). See Table 1.

### Conclusion

The prevalence of hypothermia could not be assessed due to no recording of temperature in a significant number of our patients. This suggests a less than adequate level of vigilance. Among patients with recorded temperature, a substantial number was hypothermic. It is necessary to address this issue along the entire chain of survival.

### References

1. Ferrara A, MacArthur JD, Wright HK, Modlin IM, McMillen MA: **Hypothermia and acidosis worsen coagulopathy in the patient requiring massive transfusion.** *Am J Surg* 1990, **160**:515-518.
2. Soreide E, Smith CE: **Hypothermia in trauma victims – friend or foe (enemy)?** *Scand J Trauma Resusc Emerg Med* 2004, **12**:229-231.

Table 1:

	Severe	Moderate	Mild
Severity of hypothermia	<32°C	32–34°C	34–36°C
Number of patients (%)	5 (2)	21 (10)	192 (88)