

**Results:** Data were obtained from January 2006 to December 2007. Of 20 eligible months, 25,549 trauma patients presented to the emergency department. A total of 5,168 (20.2%) sustained head trauma, and 3,336 head CTs were performed with a 29.1% positive rate of substantial head injuries. The mean rate of missed head injuries among different physicians was 4.8% (range: 3.6–5.7%,  $p = 0.78$ ). The monthly data were analyzed and a moderate correlation between monthly trauma volume and the decrease in positive rate of head CTs was identified (Pearson  $r = -0.511$ ,  $p < 0.05$ ). By introducing different cut-point values of trauma volume, the threshold of trauma census in discriminating the significant decrease of positive head CTs was identified.

**Conclusions:** The findings imply that the head CT scans might have been misused in the overcrowded setting, despite the fact that there is a standard guideline justifying its use. This phenomenon also warrants future studies focusing on the quality of care indicators regarding unnecessary examinations and the overall cost-effectiveness analysis.

**Keywords:** computed tomography; head trauma; hospital; patient volume; trauma

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### (N28) Creation of a Baseline to Cope with Orotracheal Intubation

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Since 2005, a regional baseline has been created in order to profile intubated patients in the prehospital emergency system of Strasbourg, a city with a population of 490,000 people. In this early, retrospective study, every time an orotracheal intubation was performed, the patient was entered into the system. The baseline indicates the identification of the patient; the purpose of the intubation (cardiac arrest, neurological indication, traumatic indication, etc.); the diameter of the tracheal tube; who performed the intubation; the number of attempts; the drug used for the intubation, induction, and sedation; the time of the intubation; the Cormack score; and the patient output after 24 hours. Since 2005, 3,580 patients have been entered into the system, providing a large amount of information. For instance, women represent 70% of intubated patients; at 17 hours, there is the highest rate of intubation; at 24 h women have much greater chance of surviving; and men were more likely to be involved in car crashes than women. This baseline can be helpful in managing the prehospital medical system.

**Keywords:** baseline; emergency medical services; France; orotracheal intubation; patient; prehospital

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### (N29) Effect of Endotracheal Suctioning on Intracranial Pressure in Severe Head Injured Patients Admitted to the Neurosurgical Unit

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**Introduction:** Endotracheal suctioning (ETS) is a routine nursing procedure used to decrease pulmonary complications; however, in patients with severe head injuries, it can

result in a sudden increase in intracranial pressure (ICP) and may put the patients at risk for further cerebral damage. The purpose of this study was to examine the effect of ETS on ICP in patients with head injuries.

**Methods:** Twenty-one patients with acute, severe head injury (Glasgow Coma Score  $\leq 8$ , range 4–8) were studied. The ETS procedure consisted of administration of 16 breaths at 135% of the patient's tidal volume, 100% FIO<sub>2</sub> before and after suctioning with a standard catheter (16 French) with the application of negative pressure for a duration between 10–15 seconds. Each subject received four passes of insertion of standardized suction catheter. A repeated measure model for ANOVA was used to examine the changes in mean ICP from one minute before suctioning to the ICP, during the first, second, third, and fourth passes of catheter insertion.

**Results:** Intracranial pressure significantly increased during suctioning.

**Keywords:** emergency health; endotracheal suctioning; head injury; intracranial pressure; patients

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### (N30) Patient Comfort during Prehospital Care

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**Introduction:** Feelings of comfort, warmth, and safety, and the preservation of dignity are important for all prehospital patients. The study deals with the well-being and comfort of patients during transport to the emergency department. In the Swedish ambulance service, all patients transported by ambulance are provided with blankets. One task for the ambulance staff is to prevent any negative experiences or feelings of discomfort, insecurity, and risk for hypothermia. Does the new equipment (the rescue bag) increase comfort? Does the patient feel any difference between the new equipment and the traditional blankets? The aim of this study was to examine whether new equipment can increase the well-being/comfort of patients.

**Methods:** The pilot study investigated the ambulance patients' view of comfort. The quantitative study was performed in a test group ( $n = 46$ ) and control group ( $n = 48$ ) of randomly selected ambulance missions. For the intervention in the test group, new equipment (rescue bag) was used. Ordinary ambulance blankets were used for the control group.

**Results:** Patients were more satisfied with the rescue bag than the ordinary blankets.

**Conclusions:** The rescue bag offers more comfort and is a safer way of transporting patients via ambulance.

**Keywords:** ambulance transport; blanket; comfort; hypothermia; rescue bag

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### (N31) A New Way of Decreasing the Damages due to Paramedics Driving

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Accidents due to emergency vehicles cause numerous casualties and material damages, resulting in a significant