

**PP069 MISSED INJURIES IN
TRAUMA FROM HOSPITAL
UNIVERSITI SAINS MALAYSIA
EXPERIENCE**

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INTRODUCTION:

Dealing with trauma patient in Emergency department (ED) is a major challenge. Despite a systematic initial assessment, the risk of missing injuries is still inevitable. This study is conducted to determine the incidence rate, evaluate the risk factors and missed injuries description after initial assessment in red zone ED Hospital Universiti Sains Malaysia (Hospital USM).

MATERIALS & METHODS:

Hospital records of 485 patients presented to red zone over one-year period (June 2016 to May 2017) were retrospectively reviewed. Missed injuries were defined as any new injury identified after disposition from ED to a period before hospital discharge, injuries reported from formal radiological reports and injuries found after surgical exploration. A clinically significant missed injury is an injury that require operative treatment and injury with Abbreviated Injury Scale (AIS) ≥ 3 .

RESULTS:

There were 135 missed injuries were discovered in 94 patients with a prevalence of 19.4% and incidence rate of 2.75 per 100 person-hours. Common involved body regions were the face (35%), followed by upper & lower extremities (20%), head (11%), thorax & abdomen (10% each), spine (9%). 46 injuries were clinically significant, but majority missed injuries were treated conservatively (81%). 46 % injuries were missed radiologically, 45% clinically and 9% intraoperatively. Patient who were intubated ($p=0.007$), $GCS \leq 8$ ($p=0.022$), higher ISS score ($p<0.001$), transfused with blood within 24 hours ($p=0.001$) and stayed longer in ED ($p=0.007$) were associated with missed injuries. Multiple logistic regression showed ISS, blood transfusion within 24 hours and length of stay in ED were significantly associated with missed injuries.

DISCUSSIONS:

Prevalence and incidence rate of missed injury in Hospital USM is relatively high for a retrospective study. Strategies to reduce missed injury include implementation of tertiary trauma survey in a high-risk patient after ED disposition, having sufficient training to the latest ATLS protocol and to get early radiological input in imaging interpretation.