



## Characteristics of head injury patients in emergency air medical services(EAMS)

Shin-Han Tsai MD, PhD, FICS; Hon-Ping Ma; Wan-Lin Chen; Wen-Ta Chiu MD, PhD

[Institution]

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### Introduction

Emergency air medical services (EAMS) have become a major part of the modern trauma care system and are frequently used to transport patients from remote islands to a tertiary center. The purpose of this study was to determine the characteristics of patients transported by helicopter who had head injuries.

### Methods

Data of all patients with traumatic brain injury and underwent EAMS were retrospectively retrieved from National Aeromedical Approval Center (NAAC) of Tawan. Patient data were analyzed by using the following parameters: age, gender, injury of severity score, and outcome within three days after air transport.

### Results

Between Oct 01, 2002 to Dec 31, 2012, there were 3,195 EAMS requests from the four major remote island (population: 180,000). Among them, 2,839 were approved (approval rate: 87.98%). Among the 2,839 patients, 362 sustained head injury. Male predominates in the head injury patient population (M:F=2.6:1). Mean age of patients was 41.8 years, which is younger than all patients air-lifted. Patients between 21 and 30 years old comprised 20%. Moderate to severe injured patients comprised 66.7%. 26% of patients were intubated. Thirteen patients expired within three days after air medical transport (mortality rate: 3.6%).

### Conclusions

Our study on EAMS of head injury patients showed some characteristics. Frequency of head injury patients in EAMS was 0.196 per year per thousand population. Intubation rate is higher compared with that in ground transport. There was higher percentage of moderate to severe head injury patients compared with ground transport. These findings are useful in resource allocation in remote islands.

### Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of emergency air medical services for head injury patients 2) Identify characteristics of head injury patients who underwent air medical transport

### References