

Results: A total of 2,339 were transferred by air-ambulance: 1,343 by the Greek Navy: 991 from mainland, and 321 from islands.

In those cases in which the patient was transfer by Navy, are gone to flight for more than 160,000 kms (>4 times Ecuador).

Conclusions: The steady improvement and expansion of the HNEMS, has been marked by the continuing rise of the number of the medevac operations, as well as the continuing improvement of the primary medical and nursing care. Air transportation of the patient is not always the best option globally speaking. The right patient, to the right medical-infrastructure, the right way, and the right time: safer, faster, proper way.

Keywords: air-medical; evacuations; Greek Ambulance Service; helicopter

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Evolving Physician-Staffed Helicopter Emergency Medical Services System (Doctor-Heli) in Japan

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Although thousands of people were killed or injured in the Great Hanshin-Awaji Earthquake that occurred in 1995, only 17 patients were transported by helicopter within 72 hours from the onset. However, a huge number of helicopters flew over the disaster site. The catchphrase, "There is no effective disaster medical relief without daily Helicopter Emergency Medical Service System (HEMS)" was widely accepted and systems started 20–30 years ago in European countries. Therefore, present status and future perspectives of HEMS in Japan was evaluated by comparing the impact with that of the pioneering countries. Physician-staffed HEMS (Doctor-Heli) was started in Japan in 2001. By 2006, 11 base hospitals have committed resources to this program. In the fiscal year 2005, the total number of patients who were treated and transported by Doctor-Heli was 4,098. Chiba Doctor-Heli is the most active—2,791 patients were treated from Oct. 2001 till Sep. 2006. Trauma (49%), Cerebrovascular accidents (15%), and Cardiovascular disease (12%) occupied one fourth of total number of missions and 88% (2,458) of the patients were direct transports from the scene to the hospital compared with 11%(301) was inter-hospital transport. Of the patients 59% (16,459) were transported to base hospital and 38% (1,052) to the other hospitals.

The Emergency Medical Network of Helicopter and Hospital (HEM-Net) stressed that in order to diminish "preventable deaths", it is critical to expand the Doctor-Heli service nationwide as early as possible. Finally, it is concluded that the flight cost of Doctor-Heli should be covered by medical insurance in order to distribute the cost burden and that the law concerning Doctor-Heli System should be established quickly.

Keywords: costs; demography; doctors; helicopter EMS systems; Japan

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Comparison between Helicopter Emergency Medical Services and Ambulance Transportation to Rescue People Injured by Traffic Crashes in Japan

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Background: The use of helicopters for the provision of emergency medical services (EMS) has become common especially in Western developed countries; however, this system has not been widely implemented in Japan. The main reason for this is financial difficulty. There have been only a few studies that have assessed which measure the cost and cost-effectiveness of helicopter EMS.

Purpose: Transportation by EMS helicopters was compared to ambulance transportation when rescuing people injured in traffic crashes in Japan.

Subject: Data from the Japan Trauma Data Bank (JTDB) were used. Seventy people, of whom 26 were transported by helicopter and 44 by ambulance to the Nippon Medical School Chiba-Hokusho Hospital, were analyzed.

Method: Because the distributions of background factors and important prognostic factors were different between the two transportation groups, an inverse-probability-of-treatment-weighted method was used to adjust confounding factors. The endpoints were physiological severity (RTS), predicted probability of survival (TRISS), number of days in the hospital, and the cost of hospitalization.

Results: Male patients comprised 69% in the helicopter group and 75% in the ambulance group; the mean ages were 43 and 41 years for the helicopter and ambulance groups, respectively. The mean ISS scores were 20 for the helicopter group and 22 for the ambulance group. With the adjustment of several confounding factors, the average number of days in the hospital was 17 days shorter in the helicopter group ($p = 0.032$), and the cost of the hospitalization was lower in the helicopter group by about 1,100,000 yen on average ($p = 0.027$).

Conclusion: The usefulness of the helicopter EMS system is suggested.

Keywords: ambulance; cost-effectiveness; emergency medical services; helicopter; traffic crashes; transportation

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Using Medical Helicopters to Evacuate Children with Severe Trauma

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Timely transportation (during the so called "golden hour") to specialized hospitals is an actual problem of rendering emergency medical care to children who have been injured