sites of accidents. Using a double-engine helicopter, the service is the first dedicated aeromedical transport service in Japan. Currently, there are only 10 stations in Japan, but >35 are envisioned for the future. The system is a national project funded by equal contributions from the national and local governments. Unfortunately, the financial burden confronting many local governments means that their funding has become a bottleneck for expansion. However, the economic benefits associated with preventing "preventable deaths" have been demonstrated through the Dr-Heli system. Additional problems with deploying aeromedical facilities in Japan include difficulties with landing on major transportation routes. In addition, while communication between aeromedical facilities and the police has improved markedly, further cooperation with fire departments, police services, and road management bodies is necessary. The effectiveness and advantages of medical transport by helicopters in urban areas also must be assessed. While these aspects have been demonstrated in suburban areas and areas with insufficient medical services, they have yet to be considered and assessed in major cities.

Keywords: aeromedical; development; emergency medical services; funding; helicopters; Japan; transport
Prehosp Disast Med 2007;22(2):s41–s42

(61) Return of Spontaneous Circulation and Neurologic Outcome after Administering LUCAS-CPR for In-Hospital Cardiac Arrest

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Introduction: Recently, LUCAS-CPR was introduced at H. Hart Hospital in Belgium.
Methods: From February until June 2006, LUCAS-CPR was used for all cases of adult in-hospital cardiac arrest after the arrival of the in-hospital emergency team. The Glasgow Coma Scale (GCS) Score was used to determine the neurological outcome 24 hours after discontinuing sedative drugs. At three months, the outcome was determined by the Cerebral Performance Categories (CPC). Results are presented as mean ±standard deviaton.
Results: Thirty-five patients received in-hospital LUCAS-CPR. Thirteen were female. The mean value for the age was 72.6 ±10.6 years. In 16 cases, the arrest occurred in a monitored department (emergency department, coronary care unit, intensive care unit), and a 19 occurred in a general ward. All but one of the arrests were witnessed. The mean duration of manual, closed-chest compression before LUCAS-CPR was 6.6 ±4.91 min. The first rhythm was asystol in eight patients (22.8%), PEA in 19 (54.3%), and VT/VF in eight (22.8%). Return of spontaneous circulation was obtained in 22 of 35 patients (62.9%). Twenty-four hours after discontinuing sedative drugs, the GCS was favorable (14 or 15/15) in 15 cases (42.8%). At three months, the CPC was 1 in 4 (11.4%) and of 2 in 5 patients (14.3%). One patient had a CPC of 3 and one had a CPC of 4.
Conclusion: LUCAS-CPR is a good alternative for manual closed-chest compression for patients with in-hospital cardiac arrest. ROSC ratio (62.9%) and early neurologic outcome determined by the GCS (42.8%) are high. Long-term follow up by CPC supported a positive outcome (CPC 1 or 2) in 25.7%.

Keywords: cardiac arrest; circulation; hospital; LUCAS-CPR; return of spontaneous circulation
Prehosp Disast Med 2007;22(2):s42

(62) Role of the Greek Aeromedical Evacuation Office during Early Reperfusion of Patients with ST-Elevation Myocardial Injury

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Introduction: In Europe, coronary artery disease is responsible for 40% of deaths of persons ≤75 years age. About 1:3 of acute myocardial infarctions (AMI) are fatal before treatment, mostly within the first hour after symptoms appear. Aeromedical transport of cardiac patients quickly is developing internationally. In-flight coronary thrombolysis, temporary pacing, and defibrillations have been documented as safe and improve morbidity and mortality rates.

The Aeromedical Evacuation Office of the National Center for Emergency Health Care (EKAB) has been the official governmental institution for providing prehospital emergency medical care in Greece since 1994. The EKAB provides high standards of aeromedical services.
Methods: An international bibliography review, statistical analysis of the EKAB database, review of the protocol of in-flight coronary thrombolysis, and the scientific estimation of Greek Aeromedical Evacuation Office practices has been elaborated.
Results: A meta-analysis of six trial studies, which included 6,000 patients, documented that the average time to treatment from AMI symptoms setting decreased by 58 minutes after prehospital thrombolysis, resulting in 17% decrease of in-hospital mortality. Decreasing one hour to treatment with prehospital thrombolysis application saved 21 lives/1,000 patients that were treated within in the time frame of three hours from onset of symptoms.
Conclusions: A pilot study of in-flight coronary thrombolysis and aeromedical transportation for primary Percutanerous Transluminal Coronary Angioplasty, in collaboration with the Greek Cardiological Society and Greek Task Force for Invasive Cardiology, provides an opportunity to compare international and Greek results with the aim of further development of this practice in Greece.

Keywords: aeromedical; emergency medicine; evacuation; Greece; myocardial infarction
Prehosp Disast Med 2007;22(2):s42

(63) Functions of Hyogo Emergency Medical Center

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The Hyogo Emergency Medical Center (HEMC) was established in 2003, and is intended to save lives by adjusting care between each organization during disasters.

First, there are several training courses for medical staff and medical volunteers in Hyogo Prefecture, disaster medical assistance teams (DMATs), and well-trained and well-