significant improvement from theoretical to practical training was demonstrated, this benefit is lost under conditions causing physical stress. Interestingly, the best performance occurred under the conditions of combined physical/psychological stress.

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Keywords: cardiopulmonary resuscitation; carotid-pulse-check; emergency medical services; soldiers; stress; training

(59) Survey of Local Emergency Medical Services Missions in Kashan during the Six-Month Period from 21 March–22 September 2006

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Introduction: Kashan is a city located in the province of Esfahan, Iran located between the city of Esfahan and Tehran, the capital. It has an area of 9,617 km2, and a population of 270,000 persons. The 115 emergency medical services (EMS) systems in Kashan have three urban (six ambulances) and six road (seven ambulances) stations. Ambulances are staffed by two crew members trained in rescue, stabilization, transport, and basic care of traumatic and medical emergencies.

Objective: The objective of this study was to describe the current state of EMS in Kashan.

Methods: In a retrospective descriptive study, patients treated by the 115 EMS during a six-month period were surveyed using a review of command center records. Data included: (1) total missions performed (urban and road); (2) type of mission (trauma or medical emergency); and (3) response time (RT), interval between call receipt and arrival on-scene. Descriptive statistics were used to analyze the results.

Results: Of the 5,616 missions during the study period, 4,619 (82.2%) were urban and 997(17.8%) were road missions. Among urban missions, 2,603 cases (56.3%) were due to trauma, and 2,016 (43.7) were medical emergencies. A total of 57.1% of urban trauma emergencies and 86.7% of road missions were due to motor vehicle crashes. The mean RT for urban and road missions were 4.412.16 min and 10.446.37 min respectively.

Conclusions: The results of this study indicate motor vehicle crashes are a major problem in Kashan. The EMS response time is acceptable in urban and road area but unfortunately we have no any rural services and must improve our services in rural area.

Keywords: emergency medical services (EMS); Iran

(59) Outcome of Prehospital Cardiac Arrest Cases Treated by the National Center for Emergency Medical Services (EKAV) during 2006 in Heraklion, Crete, Greece

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Objectives: The aim o this study was to review of all of the cases of prehospital cardiac arrest treated by a hospital's emergency medical services (EMS) personnel during a 10-month period from January through October 2006.

Methods: Retrospective analysis was conducted of prospectively collected data, including: (1) patient demographics; (2) arrest rhythm; (3) duration of arrest; (4) time to cardiopulmonary resuscitation (CPR) initiation; (5) time to first defibrillation; (6) time to Return of Spontaneous Circulation (ROSC); (7) status at hospital admission; and (8) status at hospital discharge.

Results: From January through October 2006, 67 cases of prehospital cardiac arrest were treated by the EMS personnel. The mean value for the age was 59 ±12 years, 67% were male. Of the arrest rhythms: (1) 62.7% were asystole; (2) 23.9% were ventricular fibrillation; (3) 13.4% ventricular tachycardia. Of the 67 cases of prehospital cardiac arrest, 23 (34.3%) patients were alive at hospital admission (survivors). For these survivors, the mean time to CPR initiation and mean time to first defibrillation were 6 ±4 minutes and 15 ±12 minutes respectively, whereas the corresponding values for non-survivors were 9 ±5 and 1,914 minutes. For the survivors, the mean time to ROSC was 17 minutes (range: 1–62 minutes). Only 30.4% of patients alive at hospital admission were discharged alive, with a mean time to CPR initiation and mean time to first defibrillation of 3 ±4 minutes and 4 ±4 minutes respectively.

Conclusions: During this 10-month period, approximately one out of three cases of prehospital cardiac arrest arrived at the hospital alive; however, only one of 10 cases was still alive at hospital discharge. Timely initiation of effective CPR and defibrillation (whenever indicated) are the main aspects that must be targeted in order to improve survival rates in pre-hospital cardiac arrest.

Keywords: cardiac arrest; cardiopulmonary resuscitation (CPR); emergency medicine services; personnel; prehospital

(60) Aeromedical Transportation in Japan—Recent Progress

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The efficacy of air medical transport for saving the lives of injured soldiers first was realized during the Korean War in the 1950s. Therefore, it is interesting that the development of a national air medical transport service in Japan only occurred in 1999. Since then, the Dr-Heli system has been used to transport experienced emergency physicians and nurses from advanced emergency medical centers to the