Hellenic MEDEVAC Operations in 1995 and 1996

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Objectives: Retrospective evaluation and analysis of all emergency air transports, during the two consecutive years 1995 and 1996, carried out by the Hellenic National Emergency Medical Service (HNEMS).

Methods: We analyzed all calls received by HNEMS concerning an emergency air transport (medevac) and all medevac operations made by the HNEMS in 1995 and 1996.

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls, total</td>
<td>1,888</td>
<td>2,095</td>
</tr>
<tr>
<td>Patients transported, total</td>
<td>1,492</td>
<td>1,772</td>
</tr>
<tr>
<td>from islands</td>
<td>1,386</td>
<td>1,691</td>
</tr>
<tr>
<td>from mainland</td>
<td>43</td>
<td>62</td>
</tr>
<tr>
<td>from abroad</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Void calls</td>
<td>166</td>
<td>195</td>
</tr>
<tr>
<td>Transports without the participation of HNEMS</td>
<td>304</td>
<td>137</td>
</tr>
<tr>
<td>Organ transplantation</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Deceased patients before arrival</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>Deceased patients during medevac</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusions: The direct results of the steady improvement and expansion of the HNEMS, is the continuing rise of the number of the medevac operations, as well as the continuing improvement of the primary medical and nursing care.

Key Words: emergency air transportation; Medevac

Helicopter Supported Rescue Operations in Mountain Areas:

Challenge for the Emergency Physician

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The outcome of patients injured in mountain areas is linked closely to the availability of rapid rescue. In the past, the main idea for rescue in mountain areas was to protect the victims from environmental danger, and to enable organized and safe evacuation. In the past three decades, considerable progress has been made in providing prehospital treatment to severely injured patients. However, the main progress in alpine rescue techniques was the establishment of a well-organized helicopter emergency medical system. With these rescue helicopters, the idea of short search and rescue periods as well as extensive prehospital advanced life support could be realized during high alpine rescue operations.

Whereas the methods of advanced cardiac and advanced trauma life support are basics for emergency physicians, the realization of these goals often are difficult in this setting. Because of difficulty finding safe landing places, the use of the rescue winch frequently is necessary to deliver physician and equipment to the victims.

Most of the emergency medical equipment needs to be taken by backpacks. Therefore, it must be reduced to the absolute minimum size and weight to deliver emergency life support. Because of the location of the victim with further danger of falls, rock falls, or avalanches, the medical treatment at the scene also must be reduced to a minimum. Often, rapid evacuation of victims by rescue winch from an exposed area is emphasized as in the best interest of patients and rescuers. Further, life support and treatment for transportation to a hospital may be delivered to the patient at a safer landing place.

The described problems during helicopter supported rescue operations in alpine areas require special skills, education, and training for the emergency physician as well as for the whole rescue crew.

Key Words: alpine rescue; emergency physician; helicopter rescue

An Airplane Crash into Type-K Ndolo Market:

What Lesson for the Future?

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On 08 January 1996, an airplane (Antonov 32) that failed takeoff, went straight ahead into a Type-K market. A total of 348 people were killed and many were injured.

The place of disaster was crowded with people, but there were no army forces to allow the organization of the first-aid efforts. Mama Yemo Hospital that received the first injured, was overwhelmed, and two other hospitals took the additional victims.

From this experience, we can realize the importance of Emergency and Disaster Medicine Teams with: 1) delimitation areas of responsibilities; 2) hospital responsibility, and planning for emergency and disaster situations; 3) development of prehospital medical services; 4) involvement of anesthetists in the development of the human resources in emergency and disaster medicine in the Congo; and 5) involvement of the national administration in this health-care field.

Key Words: airplane; crash; disaster; Kinshasa (Congo); perspectives

Role and Function of EMS Supervisors

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Prehospital emergency care not only is the practical delivery of primarily medical, but also incorporates psychological, social, geographical, and various other sciences. Compared to other parts of medicine, prehospital emergency service takes place in very uncontrolled settings. Providers are exposed to various dangers including: tough weather conditions, traffic, hostile encounters, radiation chemical, and infectious substances.

To ensure continuous quality improvement under such adverse conditions and in routine daily operations,
on-scene supervisors are helpful. They serve as mediators between prehospital providers, EMS management, and external clients such as patients, hospitals, and police and fire departments. Aspects of their work include: 1) Customer service; 2) Quality improvement; 3) On-scene coordination; 4) Medical director privileges; 5) Public relations; 6) Continuing education; 7) Risk management; 8) Employee assistance; and 9) Research. Various social skills and special additional training are prerequisites for excellent supervisory work. **Key Words:** customer service; on-scene coordination; quality improvement; supervisor

**Advanced Training of Medical Personnel in Rescue Operations Initiated By Building the Oresund Bridge**

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The building of the Oresund Bridge between Sweden and Denmark will present special problems in the case of a serious accident at sea. The highest section of the bridge will have pylons built in place which are more than 200 meters high. The building period will stretch over several years and part of the work will occur during nights.

In Malmö, on the Swedish side, this initiated the thought of training medical personnel in qualified first-aid and rescue operations in case accidents occur at sea or in hard-to-reach places. The training focused on two parts: 1) to assure that the medical personnel could operate without risking their own life; and 2) to make sure that they could function independently and in unusual situations.

Ten teams, consisting of one anaesthesiologist and one nurse anaesthetist, have undergone education for this purpose. The education had a didactic part in how to survive in sea, rough weather, and at various heights. The practical part included climbing, repelling down walls, getting winched from helicopter, and training in the water with survival equipment. They also did board training with equipment comparable to a civil marine ambulance. Depending on the task, the crew of each craft consists of a "mobile medical unit/physician" e.g., one physician (expert in emergency medicine) and two EMTs or of a "mobile medical unit/EMT" that is the two EMTs only. For emergencies in and around Sarajevo, a cross-country car (type MERCEDES WOLF with body) is used, which by equipment also is comparable to a civil emergency car (NAW-DIN).

For disasters near Sarajevo, a bus allowing transport of up to 10 severely injured persons is used. Primary air-based emergency service is performed by the French Army. They use of a helicopter (type COUGAR), able to fly at night and in bad weather, which has emergency equipment comparable to a civil emergency helicopter. It can carry up to two severely and six lightly injured persons. The medical crew of the emergency helicopter consists of a physician (experienced in emergency medicine) and an ICU nurse. If needed, an additional German physician and/or EMT can support the crew.

In case of a disaster, the staff of the helicopter is completed by a crew consisting of soldiers (physicians/EMTs/nurses) of the German MEDEVAC-company and a field-hospital. Sorting (Triage) and specific medical care is guaranteed by an executive emergency physician and medical specialist (anaesthesiologist and surgeons). **Key Words:** air-medical transport; emergency medical services; emergency medical technicians; emergency physicians; EMS; ground transport; helicopter; nurses

**Organization of the Emergency Medical Services of the German Federal Armed Forces in the Former Yugoslavia During SFOR Mission**

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The mission of the German contingent of SFOR (GECONSFO) takes place in the region of Bosnia and Herzegovina. Besides the operation of a field hospital in Rajlovac near Sarajevo, the German Federal Armed Forces (GFAF) together with the French Armed Forces secured emergency medical services for this region. To do so, the GFAF (by the MEDEVAC-company) operate an emergency services control room, coordinates the ground-base emergency missions, together with the Aeromedical Evacuation Coordination Officer (AE.CO), with air-based evacuations to Germany.

For ground-based emergency services, the GFAF uses eight armored transport cars (type FUCHS/SAN). Two of them have similar equipment as a civil emergency car (NAW-DIN). The rest are similar to a civil motor ambulance. For unarmored tasks, the GFAF uses 10 cross-country transport cars (type UNIMOG). Five of them are similar to a civil emergency car (NAW-DIN) by equipment; the rest are comparable with a civil motor ambulance. Depending on the task, the crew of each craft consists of a "mobile medical unit/physician" e.g., one physician (expert in emergency medicine) and two EMTs or of a "mobile medical unit/EMT" that is the two EMTs only. For emergencies in and around Sarajevo, a cross-country car (type MERCEDES WOLF with body) is used, which by equipment also is comparable to a civil emergency car (NAW-DIN).

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**Session 1C: Preparedness**

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