During the last three years, an interdisciplinary research group at the University of Osnabruck collected empirical data about the quality of vocational training of EMTs in Germany. This investigation used a special, standardized "Emergency-Parcours" at vocational training schools in Germany. This "Emergency-Parcours" included: 1) stations of IV access; 2) intubation; 3) electrocardiogram interpretation; 4) splinting a fracture; 5) helmet-removal with immobilization of the cervical spine; and 6) extended cardio-pulmonary resuscitation (BCLS and ACLS). The trainees, who were tested in this "Emergency-Parcours" were videotaped by a professional film team. The film documents were made in order to analyze and evaluate the study in an objective and standardized way.

Some of the results were surprising:

- The quality of the vocational training of EMS in Germany varied considerably among schools since it is not standardized. The study showed that the qualification of EMTs after finishing their vocational training, is not similar. Patients with the same symptoms are not necessarily treated in the same way by EMTs; and
- 2) Most of the EMTs who were tested in the study are well-prepared in ACLS, but many have great deficits in BCLS, particularly in the area of CPR. Trainees performed ACLS functions such as an intubation or a defibrillation well. The trainees consistently utilized incorrect cardiac compression and ventilation rates during CPR.

Key Words: advanced cardiac life support; basic cardiac life support; competency; emergency medical technicians; quality vocational training; "emergency-parcours"

## Training of Specialists-Coordinators Within the System of Disaster Medicine Service

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Disaster Medicine, as a scientific discipline of graduate and postgraduate training of medical personnel, was introduced in Russia at the beginning of the 1990s. The Chairs of Disaster Medicine were established in all medical colleges and postgraduate training institutions. A Methodological Council was set up at above chairs within the framework of the Russian Federation (RF) Ministry of Public Health on the basis of the All-Russian Centre for Disaster Medicine (ARCDM), "Zaschita." The Council deals with the certification of training institutions entitled to teach specialists in Disaster Medicine services and with the pursuing the common policy in teaching of this discipline.

To develop planning of postgraduate Disaster Medicine specialists training, ARCDM "Zaschita" conducts research into estimating the demands of such specialists regarding social and demographic factors and the scope of previous training.

The head chair in the training of the service executive personnel was established in 1994 on the basis of

ARCDM "Zaschita." Thus far, 540 specialists-coordinators of Disaster Medicine services have undergone post-graduate training under the direction of the chair. The education of the specialists is accomplished at a permanent centre and on the traveling basis. The lectures on the traveling basis receive a great deal of attention, as they are the most economical ones.

The main educational forms specified by the unified curriculum of postgraduate physician (pharmacist) training in Disaster Medicine consist of: lectures, practical studies, seminars, staff training (exercises), business games, etc. The aims and tasks of postgraduate training of the service specialists and coordinators belonging to different hierarchical levels correspond to their functional and professional status.

Key Words: disaster medicine; training of the personnel

## The Positive Training Impact for 489 Physicians and Surgeons on Duty at the Public Hospitals of Rio de Janeiro

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The Trauma Association of Rio de Janeiro and the local order of the Orthopaedic and Traumatology Association combined with the public emergency city government, provided 16 courses to 30 doctors each in hospitals in the Systematic Management of the Polytraumatized Patient, directed at the reality and necessity of the 8 million people living in that area, where the provision of emergency care is totally free.

The courses of two days each were held from September until November, 1996 at the Veterinarian Institute. They were composed of lectures, panel discussions, case presentations, practice models, accident simulations, and written tests.

The students believed that frequent training in emergencies and trauma, is very important for improving the quality of the patient care. The positive impact of the courses was related to the inclusion of the routines required to manage the polytraumatized patient, the motivation of the health care workers on duty, the tremendous economy of materials, medication, machines, and products. But, the most important effect was the re-duction of the mortality rate by 18% in Rio. All the details and statistics will be shown during the presentation.

Key Words: courses; polytrauma; quality; systematic management

## Disaster Management in Extreme Environments

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The effects of severe environments, such as extreme cold or heat, are factors that must be included in response planning and in the early and continuing management of disasters. These environmental conditions have an