

Theme 7. Sharing International Experiences in Disasters

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The Discotheque Fire in Gothenburg: Experiences Expressed by Ambulance Personnel

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Background: The work at a major accident site is a complex matter in which knowledge from multiple fields must be put into practice. In addition, the different situations at the emergency and disaster sites place a variety of demands on personnel, equipment, and organisation. In 1998, the ambulance crew and medical team members of the rescue services in the western part of Sweden had to act in such a situation at a discotheque fire. The aim of the present study is to investigate how the ambulance personnel perceived their own actions and the functioning of the organisation at a major accident site.

Result: Despite the extreme situation, most of the involved ambulance personnel were satisfied with their own preparedness and the medical care and nursing care actions taken at the site. Those who were not satisfied, reported that the main reason was lack of time to calm and comfort those people not injured or with minor injuries. The need for more medical support for the medical team members at the site also was emphasised as regards to the care of the severely injured. The ambulance service crews from the suburbs were overall less satisfied with the co-operation with other rescue units compared with the local rescue service.

Conclusion: An incident of this magnitude raises demands on organisation, all-round competence, independent work, cooperation, and understanding of the organisation at the site. A majority of ambulance personnel thought that they had been well-prepared for the mission, and had functioned well, and had done their very best under the circumstances.

Keywords: ambulance service; debriefing; disaster site; multi-casualty incident; organisation; preparedness; triage

Fire Disaster in a Motorway Tunnel

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On 18 March 1996, in a tunnel along the Palermo-Punta Raisi motorway, there occurred a road accident involving a tanker-truck loaded with 8,000 litres of liquid petroleum gas (GPL). The tanker was hit by a motor-coach that tore open the upper part of the tank, releasing gas that ignited in a few seconds. The flames overheated the LPG remaining in the tanker causing a BLEVE (Boiling Liquid Expanding Vapour Explosion). At the moment of the accident, there were 22 cars and a minibus as well as the coach in the tunnel, with a total of some 50 persons.

The time interval between the ignition of the gas and the explosion enabled a number of people to escape from the tunnel. However, five persons were burned to death and 20 others were seriously burned. The others sustained slight burns or other traumas.

The following aspects are analysed: 1) the dynamics of the accident; 2) the dynamics of the rescue operations; 3) the management of the 20 seriously burned persons in the Palermo Burn Centre; 4) the psychological reactions of the population, relations and the casualties themselves; 5) the assessment of their pathologies; and 6) the medical and surgical treatment.

There are no reports on BLEVE in a tunnel in the literature. Thus, data are presented that were obtained from a simulation of such an event.

The Palermo disaster with its terrible dynamics, confirms the thesis that the unpredictability of such accidents can be countered only by the coordinated response of rescue forces at all levels, from the general population to physicians and nurses, volunteer groups, Civil Defence, police, armed forces, etc., all of whom must be adequately prepared by an appropriate campaign of burns education.

Keywords: accident; automobile; BLEVE; burns; bus; explosion; truck; propane; tunnel