Conclusion: A combination of preparedness activities and application of protocols was useful for providing prehospital medical care during mass gatherings.

Keywords: continuity; mass gathering; prehospital protocols; on-scene treatment; prepardedness

Prehosp Disast Med 2007;22(2):s65-s66

## Subway Accident in Rome, October 2006

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Introduction: On 17 October 2006, two trains carrying 1,400 passengers crashed into each other in downtown Rome, near Piazza Vittorio. The accident caused the death of one woman and injuried 266 people.

Objective: To evaluate the pre-hospital emergency plan of Rome for managing a mass casualty situation.

Methods: A prehospital emergency plan specifically for Rome's subway stations was prepared. To evaluate the application of the plan on-scene, a major incident method was applied.

Results: The evaluation of the results demonstrated that:

- 1. safety measures directed at CBRNE situations were successfully applied;
- Gold Strategic Command and Silver Tactical Command structures were used and included Government Authorities (Emergency General Director—Regional Command);
- 3. Bronze Command and Communication at the scene were difficult because the accident occurred three floors under street level;
- 4. good assessments were conducted at the scene according prepared protocols (22 ambulances, Logistic support, and a Casualties Clearing Station (CCS) were operational within 20 minutes; 44 ambulances, two CCS, and six buses were at the scene within the first hour; and 90% of the resources were well-located at the scene);
- 5. a START Triage method was applied on 116 patients (five red; 19 yellow; 91 green; one black);
- 6. patients were admitted into 17 hospitals;
- 7. 150 patients were not transported by the health services and went by themselves to one of two hospitals.

Conclusion: The use of a combination of preparedness activities, such as protocols, integration with other organizations, and a regional strategic command, are useful during a mass casualty situation.

Keywords: preparedness; regional strategic command; train crash; plans; protocols; START triage

Prehosp Disast Med 2007;22(2):s66

## Managing Mass-Casualty Incidents: Protocols or Principles?

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Introduction: Mass-casualty incidents (MCIs) require management under conditions of uncertainty. The dynamic nature of the situation—the erratic flow of information and the large number of variables—dictates incident management. Preparing solutions ahead of time and thus, is

complicated by the uncertainty of a future event; its timing, location, characteristics, consequences, magnitude, and response required. For this reason, MCI planning, preparation, and training that is based on rigid, orthodox assumptions may be ineffective or even counterproductive.

Methods: The details of 93 terror bombings that occurred in Israel in the past five years were assembled. The range of casualties involved in these MCIs illustrates how difficult it is to draw conclusions for planning based on prior events. Results: The mean number of casualties was 52; the median was 43. The range was between 12 and 160 victims, respectively. The results show that the percentage of severely injured (ISS = 16) was far from constant and ranged from 0 and 100%. Likewise the fatality rate ranged from 0 to 53%.

Conclusion: The medical manager of a MCI must approach the event with a high degree of flexibility in order to use all available resources in a manner that will lead to the most successful outcome. Training for the management of MCIs should stress these capabilities and skills.

Keywords: Israel; mass-casualty incident; mass-casualty incident planning; percentage of severely injured

Prehosp Disast Med 2007;22(2):s66

## Poster Presentations—Theme 7: Mass Gatherings

## (109) Emergency Care Services in Prehospital Intervention for an Uncertain Gas Leak

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Background: The impact of a gas leak in Ankara, Turkey, on 10 February 2005, in terms of epidemiologic outcomes, resource utilization, and the time course of emergency needs was estimated.

Objectives: The aim was to standardize interventions against chemicals.

Methods: All of the events that occurred following notification of the gas leak are presented a case report.

Results: At 11:15 hours (h), the Dispatch Center received a call from Esenboga Airport reporting that two laborers working in the airport had become sick and were transported to Diskapi Hospital, and that a package in the same area would need to be removed. At 11:40 h, the Civilian Defense Team took measures to block entrance into the incident place. The Incident Place Management Team tried to detect the number of people affected and prepared them to change their clothes and be decontaminated. The Domestic Lines Chief offered to remove the contaminated plane away from the others, if not to take away other planes and personnel and control them continuously. It was found that 138 passengers along with cargo had been on the plane. The name and address lists of all passengers were obtained. Conclusions: Incident place management should be conducted by the 112 Emergency Health Service teams. It should be decided ahead of time where and how to make personnel and area measurements. It also was concluded that communication networks should be guided centrally. Warning and quarantine stages, as well as hospital trans-