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POSTERS

Management of Multi-Casualty Accidents in Small to Moderate-Size Hospitals

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Introduction: Accidents that produce large numbers of casualties are a burden on the small and medium-size general hospitals because they lack resources to deal with all the patients in an effective and timely manner.

Design: A management plan was developed, and was implemented every time there was an accident that produced more than 10 victims.

Results: The plan was tested in actual situations 13 times during the year 2002. The total number of patients managed according to this plan was 320. Of these, 72 arrived dead to the emergency department; 152 were admitted, of whom 11 died in hospital. The remainder were discharged alive from hospital.

Conclusion: Multiple casualties that arrive simultaneously in small to medium-size hospitals are always a problem for any treatment facility because they overwhelm the resources of the hospital. So a plan to meet such contingencies must be ready and understood by all the providers. The details of this management plan and outcome from its use will be discussed.

Keywords: accidents; emergency departments; hospital; management; multiple casualties; outcome; plan; providers; resources

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Earthquake Disaster Response and Cooperation in a Guatemalan Community

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I. Introduction

- Earthquakes: major disasters in the Central American country of Guatemala
- Minimal literature concerning disaster planning and mitigation in developing countries
- Purpose: to evaluate a Guatemalan community's response to a simulated earthquake in the particular areas of injury pattern recognition, mobilization of resources, field triage, and transport times to the hospital.

II. Methods

- Design
 - Escalating drills of severity in a Guatemalan community
 - Evaluator: University of Massachusetts Department of Disaster Emergency Medicine

- Population
 - 120 volunteer victims
 - Government officials
 - EMS, rescue, military, medical, and communication personnel
- Setting: Quetzaltenango, Guatemala
 - An elementary school
 - A government building
 - A landslide area
- Interventions
 - Training and preparation of responders
 - Written quiz
 - Earthquake drill
 - Written evaluations
- Main Outcome Measures
 - Recognition of injury patterns
 - Resources and interagency cooperation
 - Triage percentages
 - Mean transport times by statistical analysis

III. Results

- Recognition of injury patterns
 - 69 subjects
 - 67% average score
- Resources and Interagency Cooperation
 - Activation times
 - Equipment
- Triage Percentages
 - Total victims transported to hospital: 57/120 (48%)
 - Under-triage rate of red victims as yellow: 7/17 (41%)
 - Under-triage rate of red victims as green: 1/17 (6%)
 - Over-triage rate of black victims: 5/9 (55%)
- Mean Transport Times
 - Critical victims: 00:18 minutes
 - Non-critical victims: 00:30 minutes
 - Critical versus non-critical victims demonstrated a p -value <0.05

IV. Discussion

- Earthquake Injury Patterns
 - 61% unaware of earthquake injury patterns
 - 48% transport rate of victims
- Resources and Interagency Cooperation
 - Incident command center and structure
 - Communication system by ABRON
 - Composition of rescue personnel
 - Role of military
- Triage
 - Triage system(s)
 - Triage classification percentages
 - Casualty collection centers
- Transport
 - Equipment