#2 (Green) Minimal;

#3 (Yellow): Moderate;

#4 (Red) Severe, but require no surgical management;

#5 (Red. Op) Severe and require surgical management; or#6 (Black) Dead.

Finally, patients will be transferred to each medical field tent according to the triage categories.

III. In the third step, #1 and/or #2 patients will be transferred to their own houses or their relative's houses and #3, #4, and #5 will be transferred to the other general hospitals. The triage officer should be the most experienced medical officer who is in complete control of the reception and categorization, and will be appointed by the director of each department.

## 068.

## **Avoiding Trocar-Related Injuries**

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In the past, trocar insertions have been associated with a significant incidence of discus perforation as well as vascular injury. A new, radial-expanding, blunt trocar has been designed that holds promise in decreasing the incidence of these injuries. Postoperative complications most common to the defect caused by trocar insertions are incision hernia and small bowel obstruction. Because this device stretches the tissues of the anterior abdominal wall instead of cutting, the abdominal wall defects produced are significantly smaller, and, in theory, can be associated with a lower incidence of these postoperative complications.

In light of this, a study was performed at the University of California, San Francisco, Department of Surgery whereby 12 pigs were separated into two equal groups using the new expandable trocar in one-half and the conventional 10 mm, disposable trocar in the other half. Observations were made as to the shape of the muscular fascial defects.

The results indicate radial-expanding devices produced slitlike defects arranged in a gridiron fashion, whereas, the conventional trocars produced clover-leaf-shaped larger defects. There was visually less tissue ecchymosees associated with the radially expanding devices, as well as the smaller size.

# 122. An Interactive CD-ROM on Triage

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An interactive, multimedia education and training CD-ROM on disaster medicine will be produced. Since many disasters are crossing national borders, generally accepted guidelines

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for education will promote international collaboration and unity of doctrine to achieve uniformity standardization, and interoperability in medical plans, procedures, and protocols.

The interactive CD-ROM on disaster medicine can be used in all medicine or nursing schools and training centres for ambulance crews and other rescue workers. It is based on an educational curriculum.

A. Medical Care

- 1. Surgery and Traumatology
- 2. Anesthesiology and Resuscitation
- 3. Chemical Injuries
- 4. Nuclear Injuries
- 5. Infectious Diseases
- 6. Psychological Care
- B. Public Health
  - 1. Epidemiology
  - 2. Sanitation Health and Environment
  - 3. Nutrition and Alimentation

C. Disaster Management

- 1. Risk Management
- 2. Definition Classification and Evaluation of a Disaster
- 3. Medical Relief Organizations
- 4. Regulations
- 5. Planning
- 6. Coordination, Communication, Command
- 7. Logistics
- 8. Protection and Security
- 9. Triage
- 10. Prehospital Phase Management
- 11. Transportation
- 12. Hospital Phase Management
- 13. Information and News Media
- 14. Rehabilitation
- 15. Management of Displaced Persons and Refugees

Salient among the training methods is simulation. Computer simulation can be quite educational, and is relatively inexpensive to conduct. The triage program is completed and provides a lot of randomized casualties to the participating sorter.

#### 081.

### Analysis of Fire Disasters in Taiwan

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Taiwan is located in a subtropical area, and has an area of 13,803 square miles. It has one of the world's densest population: the total population is about 21 million.

In recent years, because the environment has been changing from agriculture to industry, fire-disaster has resulted in major damage to peoples' lives and properties. From 1978 to 1993, the analysis of fire-disasters that occurred in Taiwan included:

1) Incidence: the two peak years were 1983 and 1986;