reasonable time period to avoid significant deterioration or possible death; 3) those who can wait for delayed intervention without undue compromise—mostly having minor injuries that are not life threatening; and 4) those who have sustained injury considered incompatible with life, regardless of any intervention.

There exists also a reverse-triage problem that may occur whenever mass casualties are anticipated from a peacetime disaster. This means that a large number of ambulatory victims may appear in the emergency ward of the involved hospital before its personnel are aware of a disaster in progress.

In both of these scenarios, it is important that a competent triage team be dispatched to the disaster scene. This team should not be involved in patient transport or individual patient care, but should be devoted strictly to quick patient assessment and categorization to prioritize for dispatching to the appropriate treatment facility.

I.3
Medical Disaster Organization in Stockholm County

Eva G-Fellenius, Håkan Lindberg
CAK, Stockholm County Council, Sweden

According to the National Board of Health and Welfare, every county council in Sweden should have a medical disaster plan. The medical disaster plan for Stockholm County is based on the general guidelines from the National Board of Health and Welfare. Medical care service in all rescue operations within Stockholm County are directed from one emergency service center (SOS-A). In the event of serious accidents or disaster situations, a central medical disaster management group, consisting of the staff doctor, a duty officer, and personnel from the SOS-A, directs the medical work. All radio communications to and from the injury site and to and from the hospitals involved must go via SOS-A.

In the injury area, a well-trained senior medical officer is in charge of the medical operation supported by a command ambulance orderly for communication. An injury-site doctor and medical teams work at the accident site and the assembly point. Five emergency hospitals can send medical teams to an injury area. A medical team consists of one doctor and two nurses, all well-trained in emergency and disaster medicine. Stockholm has nine emergency hospitals. Each hospital must have a local plan to rapidly assume disaster preparedness and become receiving hospitals.

For emergency transportation, Stockholm County has about 50 ambulances and two ambulance helicopters. To support ambulance orderlies in emergency cases, Stockholm has four emergency vehicles, each with an anesthetist-nurse and an ambulance orderly. In the rescue operation, medical-care personnel work together with other authorities and organizations. The most important of these are the municipal rescue service, the police, MRCC, and ARCC. The medical-care personnel provide collaboration of education and training. The Central Disaster Medical Planing Department (CAK) has a contract with each of the hospitals and includes disaster preparedness, the ability to send medical teams to injury sites, and annual education and training.

I.4
Disaster Medicine Policy in Latvia

Andrejs Timbers, MD, Dainis Krievins, MD, Liene Annuza, MD
Department of Health, Ministry of Welfare, Riga, Latvia

The system of disaster medicine presently is forming in Latvia. In the former Soviet Union, this service did not exist as a separate branch, but instead only the civil defense system functioned. The strategic goal of disaster medicine in Latvia is an efficient medical-care system for emergencies and disasters formed within 10 years, and developing and achieving the European level of effective operational and qualitative disaster medical care. The main directions of the disaster-medicine policy in Latvia are: 1) organization and management of disaster medicine; 2) organization of operational service; 3) training and education research; 4) provision of medical materials, technical provision, and financing; and 5) coordination and cooperation.

I.5
Prehospital Medical Care in Disasters in Lithuania: Cooperation Between Military and Civilian Services

Dinas Vaitkaitis
Department of Disaster Medicine,
Kaunas Medical Academy, Lithuania

The commencement of medical care in disasters and accidents usually coincides with the arrival of the ambulance. The ambulance team (one doctor, one nurse, and one ambulance) is able to provide medical care (advanced life support) for three to five patients, and is able to transport one patient to the hospital. In disasters with large numbers of casualties, the abilities of two to three ambulances are insufficient to provide optimal care for all casualties within an optimal time.

We proposed and created, on the basis of military medical service, the special mobile station on the basis of the battalion station. This station (two doctors, two ambulance drivers and three nurses) has sufficient supplies of medical equipment to take care of 15–25 casualties, to prepare them for transportation and evacuation, and to provide decontamination. This station is on duty and able to provide service within one to two hours.

I.6
Interhospital Transport of the Critically Ill in a Rural Setting

Dennis Nutgent, MD
Coordinator, Dr. Tony Facio Hospital Emergency Committee
Costarican Social Security System, Limón, Costa Rica

Many rural hospitals lack the facilities that would allow adequate management of certain critically ill patients. This problem is true especially for developing countries, such as those in Latin America. Patients often are transported in ambulances that do not meet minimum standards. More importantly, patients that require constant medical care during their trans-

fers are being transported in these inadequate units. In rural areas, small community hospitals often are located several hours by road from specialized hospitals. The development of multidisciplinary transport teams trained and equipped to perform this task is feasible for most rural hospitals. These teams could be assembled from existing hospital staff. We have developed a working model that sets priorities according to our needs and limitations. We also consider that it could be used by other hospitals with characteristics similar to ours.

I.7
Mobile Field Hospital

Dr. med. Reinhold Schultze
Siegen, Germany

This poster presented a proposal for a mobile field hospital on a container basis. Two operation theaters—one combined X-ray and laboratory unit, one unit for post-operative care, one unit for intensive care, and one unit for preoperative measures—are enclosed in a hermetic system to keep out dust and gases.

Outside of this nucleus, one needs further containerized elements for electric power, water refining, laundry and sterilization, and a satcom station for running the hospital. One also must consider a kitchen with cleaning automatons, showers, and chemical toilets to maintain the hygiene of the personnel engaged in the mission. These can be placed separately.

All other elements of a field hospital, such as admission with decontamination, triage and waiting zones for patients already treated, and patient wards, can be set up in existing buildings or tents.

The presentation also will show the difficulties of enlarging the working area by telescopic wall elements within a shelter, the problems of transportation, and the composition of these elements to a hermetic compound to allow operations under sterile conditions. Hygiene better than that necessary for deshocking, maintenance of vital functions, or stabilization of fractures, is essential.

I.8
Computer Program to Calculate Different Trauma Scores and to Record the Data of the Patients

Wim (M.A.A.) Van der Heyden, Surgeon
Chief Medical Adviser of the Netherlands Red Cross
Traumatologic Department Surgeon, Dijkzigt Hospital
Rotterdam, Netherlands

This program works on personal computers with a version of MS-DOS. The program consists of the following aspects:

A. Extend components (input the data of a patients in the data base); B. Read components on the screen; C. Record alterations (change data of a existing patient); D. Calculation of trauma scores.

Sort the data for:

E. Names; F. Ages; G. Hospital numbers; H. Trauma mechanism (penetrating or blunt); I. Trauma scores; J. Specific injuries.

The input consists of 26 items:

1) Name; 2) First name; 3) Birth date; 4) Location (emergency department or others); 5) Hospital number; 6) Date of accident; 7) Blunt/penetrating injury; 8) Respiratory rate; 9) Systolic blood pressure; 10) Glasgow Coma Scale (GCS) eye score; 11) GCS motor score; and 12) GCS verbal score.

When it is necessary to make a choice, a help screen shows the possibilities:

13–26) The classification of the anatomical injury score (AIS)-scores by the different body regions. Some help screens bring the user to the exact injury by walking through a decision tree.

After finishing input item entry, there are three screens: The first displays all the data for this patient and there is a possibility, if necessary, to change one or more of the items. The second screen displays the AIS-codes, and the third displays the calculated trauma scores: GCS score; Triage RTS; RTS; ISS; TRISS; and ASCOT.

There will be a demonstration of this program for interested colleagues.

I.9
Interactive Learning in Triage Tactics

A.K. Mattila Matti, MD, PhD
Kuopio, Finland

The survival of severely injured patients in major accidents and disasters is greatly dependent on correct tactics, including decisions of priority order in transportation and care. There is an imperative demand to effective tactical training in triage principles at the scene, but there are few real possibilities to acquire experience. Computer-aided training opens new dimensions for interactive repetition of triage responsibilities. TRIAGE software is aimed to simulate an accident scene, in which you are prompted to make decisions on task priorities to save causalities. TRIAGE software is written for IBM-compatible PCs including a mouse, hard disk, and color monitor. This method means nearly unlimited technical possibilities of training.

The principal goal is to keep all simulated causalities alive using the actual emergency-care resources in suitable priority order. The trainee must make quick and intelligent decisions and use available resources appropriately. An automatic recording of decisions provides an important evaluation reply. Each TRIAGE package includes nine accidents with a progressively increasing number of victims. Simultaneously, resources remain unaltered. Consequently, there are increasing needs for proper tactics and priority decisions. All the logical features of interactive learning are included in this simulation package with the goal to improve tactical preparedness for true accidents.