

**Conclusions:** The use of TM II allows a saving of oxygen sources, not as essential in emergency situation as it could be in a disaster situation.

**Key words:** administration; carbon-monoxide; computation; disaster; model; oxygen; masks; Tusk Mask II  
*Prehosp Disast Med* 2001;16(2):s81.

### A New Approach for Casting Fingers, Hands, or Arms within Seconds

**Cpt. L. Várbelyi; Col. L. Zsiros; Col. E. Cziffer; Col. J. Fűrész; Gen. Maj. L. Svéd**

The authors present a new approach for casting, their experience with it, and compare its practicability with the usual techniques (plaster of Paris and casting with thermoplastics). The new approach is based on a Hungarian-Swiss patent called the "Chrisofix" concept. All of the corresponding splints have a corrugated, thin aluminium core covered with cotton- or polyamide-laminated polyethylene layers. The form of the individually adjustable splints/orthoses depends on the target joint/s of immobilisation. Thus, the limitation of function is reduced to the necessary minimum.

The comparisons of the different casting techniques discussed are based on the authors' experiences with the conventional techniques and with different types of splints based on the new approach in >100 cases partially during SFOR and KFOR missions, respectively. Reports from Hungarian National Institutes of Traumatology and Rheumatology are included in the discussion. Its quick applicability and its ability to ensure functioning of the uninvolved joints are the advantages of this new approach and are the reasons that make it so useful in field medical practice and disaster situations.

**Key words:** casting; "Chrisofix"; fractures; immobilization; orthoses; splints; techniques  
*Prehosp Disast Med* 2001;16(2):s81.

### Drug Consumption in Traffic Accidents

**FCO Javier Garcia Vega**  
SPAIN

**Introduction:** Traffic accidents constitute an important cause of morbidity and mortality in developed countries, mainly in young people. In Spain, around 5,000 people die annually due to these accidents, with >100,000 injured. Drug and alcohol consumption, as well as the nonuse of safety measures, influence the incidence as well as the severity of the injuries of the traffic victims.

**Objectives:** We set out to evaluate the existing relationships between the consumption of alcohol or other drugs among injured drivers, with respect to the use or nonuse of safety measures and the severity of the injuries produced in the accident.

**Methods:** We studied 62 drivers involved in and injured from traffic accidents and who were transported to our Hospital Emergency Service. The classic descriptive variables were analyzed: age, gender, means of locomotion,

alcohol ingestion, drugs, use of safety measures, determination of type of toxic materials in the urine and blood alcohol levels, main diagnosis, index of gravity (Scale of Crams), and disposition of the patient.

**Results:** Of the study population, 68% were men (32% women), with an average age of 30.22 ±12.3 years. Only 45.2% of the persons used a car safety belt or helmet, 38% affirmed to have ingested alcohol, and 1.6% to have consumed another type of drugs before the accident. Moreover, blood alcohol level was >0.5 g/100 ml. in 57.3% and toxic materials were present in the urine in 16.1% (all the patients with positive toxic screens also had alcohol in their blood). Cannabis was the drug most frequently found (65.3% of the positive determination). Of these patients, 37.4% needed to be admitted to hospital, and 29.2% injured were considered to be injured seriously. Among those that had a positive result for alcohol in blood, 85.1% did not use safety measures, and 87.8% were admitted to hospital. Among the victims who had consumed other drugs, 100% did not use safety measures and needed to be admitted; 70.7% of patients intoxicated with some kind of drug were considered serious.

**Conclusions:** A high proportion of alcohol consumption and other drugs exists among the drivers of motor vehicles that are involved in traffic accidents, and a high disproportion exists between the recognition of such consumption and the analytical determinations. Drug consumption is related clearly to the nonuse of safety measures, having the potential to increase the severity of the injuries and the cost of medical resources.

**Key words:** accidents; alcohol; consumption; drivers; drugs; injuries; safety measures; traffic  
E-mail: fjgvega@nexo.es  
*Prehosp Disast Med* 2001;16(2):s81.

### Model of Disaster Medical Response in Metropolitan Taipei

**Lee-Min Wang, MD; Chi-Hwa Chefn, MD; Yen-Tsui Huang, MD; Chen-Hwa Wei, MD; Chen-Hsen Lee, MD**

Emergency Department, Veterans General Hospital-Taipei National Defense Medical Center, National Yang-Ming University, Taipei, Taiwan, REPUBLIC OF CHINA

**Introduction:** Disasters are tragedies that overwhelm our communities, destroy our property, and harm our population. Since 21 September 1999, we suffered from a major disaster (earthquake) that killed about 2,347 people, and injured approximately 9,400 people. Three days later, there were 320,000 people (12.8%) who were staying in shelters, because their houses (81,000) were totally or partly damaged. The affected area was suburban, and the amount of damage was limited, but the disaster medical response was very important. For further preparation, it was necessary to build a model for disaster medical response in the metropolis.

**Objective:** This study should explain the importance of building a model of disaster medical response in the