

Management of Bulgarian Military Medical Teams during Operations “Iraqi Freedom” and “Enduring Freedom”

Major Gen. Prof. S. Tonev, MD, ScD;¹

Col. S. Chupetlowski, MD, PhD;² D. Tunkova³

1. President, Military Medical Academy (MMA), Surgeon General of the Bulgarian Armed Forces, Sofia, Bulgaria
2. Chief, Military Medical Detachment for Emergency Response, MMA, Sofia, Bulgaria
3. Expert in Military Logistics, Military Medical Detachment for Emergency Response, MMA, Sofia, Bulgaria

Objective: After Bulgaria became a member of the Allied Forces, the Bulgarian Military Medical Service (Military Medical Academy) utilized the North Atlantic Treaty Organization (NATO) medical concept for treating battlefield trauma. The purpose of this presentation is to evaluate the process of composition, education, training, and control on military medical teams (for R1 and R2 medical treatment facilities (MTF)) and to share some experiences. **Methods:** From 2002 to mid-2009, during operations “Iraqi Freedom” and “Enduring Freedom”, Bulgarian Armed Forces sent 28 medical teams to Role 1 and 35 surgical teams to Role 2 MTFs. These teams participated in the treatment of large number of patients, including 590 battlefield trauma cases. The processes of preparation and training of the surgical teams was analyzed.

Results: The proposed methodology considers selection, certification, deployment, and control of the medical personnel from R1 and R2 MTFs. The authors shared their own experience according using different methods to improve the training activities. The special issues of medical support during operations are discussed—multinational climate, specific surgical problems, psychological impact of military environment, etc. The specific character of the surgical management in the International Security Alliance Force camps is described.

Conclusions: Several general conclusions are made considering different aspects of the management of Bulgarian military medical teams during Operations Iraqi Freedom and Enduring Freedom.

Keywords: Bulgaria; Iraq; medical team; military; Operation Enduring Freedom; Operation Iraqi Freedom

Prehosp Disaster Med

Five-Year Experience with Battlefield Trauma Management at Role 2 Military Field Hospitals in Afghanistan

Col. S. Chupetlowski, MD, PhD;¹

Major Gen. Prof. S. Tonev, MD, ScD;² K. Spasov, MD³

1. Chief, Military Medical Detachment for Emergency Response, Military Medical Academy, Sofia, Bulgaria
2. President, Military Medical Academy (MMA), Surgeon General of the Bulgarian Armed Forces, Sofia, Bulgaria
3. Head of Surgical Department, Military Medical Detachment for Emergency Response

Objective: The objective of this study was to analyze Bulgarian surgical experience with severe battlefield trauma management during operations in Afghanistan.

Methods: In this study, the authors presented their experience based on battlefield trauma cases treated by Bulgarian

military surgical teams at Role 2 military field hospitals. The material consists of various battle traumas affecting all anatomical regions. The information comes from the trauma registries of the field hospitals.

Results: A total of 243 trauma patients were managed during a five-year period. Patients were placed into one of two groups: (1) ballistic and explosive trauma; and (2) other trauma occurring during armed conflict. The ballistic trauma patients group consisted of 128 patients with a single injury, and three with multiple wounds. The explosive trauma group consisted of 105 patients, including: (1) penetrating trauma, 87; (2) blunt trauma, 4; (3) single barotraumas, 2; and (4) combined trauma, 12. The other trauma group consisted of two penetrating and five blunt trauma patients.

Conclusions: During armed conflicts, surgical management at Role 2 hospitals includes not only ballistic and explosive trauma, but also other trauma provoked via incidents other than battlefield wounding. The explosive trauma group consisted of 45% of all trauma cases managed during a five-year period.

Keywords: Afghanistan; battlefield; field hospitals; military; trauma management

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Collaboration between Military and Civilian Systems in Managing Emergencies

Tonisav Antoljak; Ante Zvonimir Golem; Tomo Kovač; Ivan Dobrić; Slavko Davila

Clinical Hospital Center, Zagreb, Croatia

Introduction: As soon as declaring independence in 1991, Croatia faced the unexpected military and paramilitary aggression of the former Yugoslavian federal army. Since there was no aid from abroad, the country had to rely on its own capabilities to cope with the increasing health demands among soldiers and civilians, including the abrupt migration of 16% of the population from the war area. This was done during circumstances involving obstructed traffic, massive destruction of houses and towns, considerable loss of healthcare infrastructure and supplies on occupied territory, as well as with most of hospitals under direct fire.

Methods: Mobile Surgical Teams composed of civilian medical staff were sent to the first battlefield. They treated wounded persons, but their main responsibility was to provide regular health care to civilians in the vicinity. Special services were developed for other public health problems and their activities were coordinated by Headquarters for Medical Crisis.

Results: During the war in Croatia, 64.5% of wounded persons were supported by organized first aid, among them 90% in the presence of physician. More than 30,000 people were treated, among them 68% in war hospitals with a transport time less than one hour for 61%. Normal water and food supply was assured, there were no epidemics, and sporadic infectious diseases were recognized and cured. No tetanus infections and few cases of gas gangrene were registered.

Conclusions: The integration of disaster preparedness must be brought to the local level. Hospitals must maintain operational effectiveness with minimal interruptions despite the potential loss of infrastructure and personnel. Surgeons are

natural leaders in emergency disaster operations since their skills and mentality are extremely beneficial.

Keywords: civil-military; collaboration; Croatia; emergency; management; war

Prehosp Disaster Med

Medical Care to Military and Civil Persons in Field Hospitals during the War in South Ossetia (2008)

V.M. Rozinov; V.I. Petlakh; V.E. Shabanov; A.C. Popov

Moscow Institute of Pediatrics and Children's Surgery, All Russian Center for Disaster Medicine "Zaschita", Airmobile Hospital "Emercom" of Russia, Russia

Introduction: The Russian Ministry of Health and "Emercom" hospital was developed for rendering medical aid to civilians during the military conflict in South Ossetia (August 2008) in Tschinvali.

Methods: The structure of the civil hospital included doctors and medical nurses of the All-Russia Center for Disaster Medicine and the Airmobile Hospital Emercom of Russia. The field hospital was set up next to the local hospital, which was destroyed as a result of military actions. Maintenance and protection services were provided by staff of Emercom.

Results: From August 12 until August 27, 593 patients were admitted to the hospital. Among them, 43 (7.2 %) were military men from the Russian and Georgian armies (Ossetic Civil Guardsmen). Eighty-four persons were evacuated to the military hospitals and Vladikavkaz and Moscow hospitals. Five wounded Georgian military men were treated in the Russian hospital. Their evacuation to Georgia was complicated by the absence of contact with the representatives of the Red Cross. A humanitarian problem presented when rendering surgical help to elderly ethnic Georgians who lived in Georgian villages in the territory of South Ossetia. The special teams, consisting of doctors, nurses, and psychologists rendered medical aid to 44 persons. Eight patients were evacuated to the hospital for further treatment. Doctors arranged five humanitarian escorts to the city of Gory (Georgia), all 318 civil persons of Georgian nationality were evacuated there.

Conclusions: The field hospital located in a military conflict zone rendered medical aid to both civil and military persons. The most difficult organizational problem was the treatment of wounded Georgian military men and rendering medical aid to elderly people left in Georgian villages.

Keywords: civil persons; elderly persons; field hospitals; military conflict; South Ossetia

Prehosp Disaster Med

Drug Dispensing by Home Front Command Medical Units to Civilians in Shelters

S. Klang;^{1,2} P. Goldstein;¹ A. Bar¹

1. Home Front Command Medical Department, Israel

2. Clalit Health Services Headquarters, Israel

Introduction: During the 2nd Lebanon War, the northern area of Israel was under continuous missile and rocket attack for one month. The Home Front Command (HFC) formulated some basic rules for proper behavior during conventional missile fire. The population was instructed by

the HFC to stay in shelters; medical services in the community remained available by HFC instruction. Medical units of the HFC patrolled in >1,000 shelters identifying the medical problems of people with chronic diseases, such as hypertension, heart failure, or diabetes, who could not reach a pharmacy to obtain their medication. Although medical history could be provided using cellular communication, the medical units' basic equipment may not include the necessary medications, and therefore, the patient sometimes needed to go to a hospital in order to prevent deterioration of his or her medical situation.

Methods: After the war, drug consumption over six months was analyzed for the largest city in northern Israel using the electronic records of Clalit Health Services, the largest sick fund in Israel. The data were collected using generic names and daily defined dosage (DDD) (as defined by the anatomical therapeutic chemical (ATC)/DDD World Health Organization) and then categorized according to the main medical indication. Drugs with more than 1,000 DDD were categorized as an important medication to be included in the basic equipment of HFC medical units.

Results: Hypertension, mental illness, sleep disturbances, pain/inflammation, epilepsy, and diabetes were the major diseases according to the drug consumption data. The main generic names were: metformin, atenolol, furosemide, omeprazole, lorazepam, and brotizolam.

Conclusions: Historic electronic drug consumption records are mandatory for analyzing the medical needs of populations that must be protected in shelters that do not have access to pharmacies. The medical history can be confirmed by a phone call to the physician or pharmacist and then the drugs can be dispensed to patients without the need of sending the patient to a hospital.

Keywords: civilian population; dosage; drugs; medical needs; pharmacy; shelter

Prehosp Disaster Med

Natural Disasters

A National Multi-Organizational Model for the Preparedness and Immediate Response Stage to an Earthquake

Yecheiel Soffer, PhD;¹ Avishay Goldberg, PhD, MD;² Robert Cohen, PhD;³ Yaron Bar-Dayan MD, MHA⁴

1. Home Front Command, Israeli Defence Forces, Israel

2. PReparED Research Center, Department of Health Systems Management, Ben Gurion University, Israel

3. Ministry of Health, Israel

4. PReparED research center, Ben Gurion University, Israel

Background: An earthquake may have consequences that affect humans and the environment. Past experiences with the devastating consequences of earthquakes prove the importance of the organizational response systems to these events.

In this study, a multi-organizational model for the preparedness and immediate response stages to an earthquake has been assembled.

Objective: The goal was to construct a national, multi-organizational model for saving lives in the preparedness and immediate response stages of an earthquake.