



# Military Medical Academy, Sofia experience in disaster and humanitarian relief operations

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**Summary** - Military Medical Academy (MMA) during its over one century history (120 years) planned and execute more than 20 military medical missions in support of international disaster and humanitarian relief operations. First mission was in 1903-1905 and from 1952 military medical officers has been deployed abroad. Nowadays Bulgarian military medics are participating in four missions abroad.

The aim of this study is to present the Military medical Academy, Sofia experience in disaster and humanitarian relief operations.

**Materials and Methods:** By the means of descriptive and comparative methods the experience gained during completed and ongoing military medical missions in support to humanitarian and disaster relief operations is presented and analyzed.

**Conclusions:** In conclusion as a result of performed analyses the implementation of the lessons learned during military medical support to humanitarian and disaster relief operation in Military Medical Academy structure, training and educational programs is presented

**Key words:** Military Medical Academy, Sofia; Disaster Medical Support; Humanitarian Operations; Military Missions Abroad

## Introduction

Military Medical Academy (MMA) is the successor to the General Garrison Hospital in the city of Sofia, founded in 1891. It passes over different stages of its over one century progress (120 years) and in 1960 it is restructured into Higher Military Medical Institute and from 1989 in Military Medical Academy.

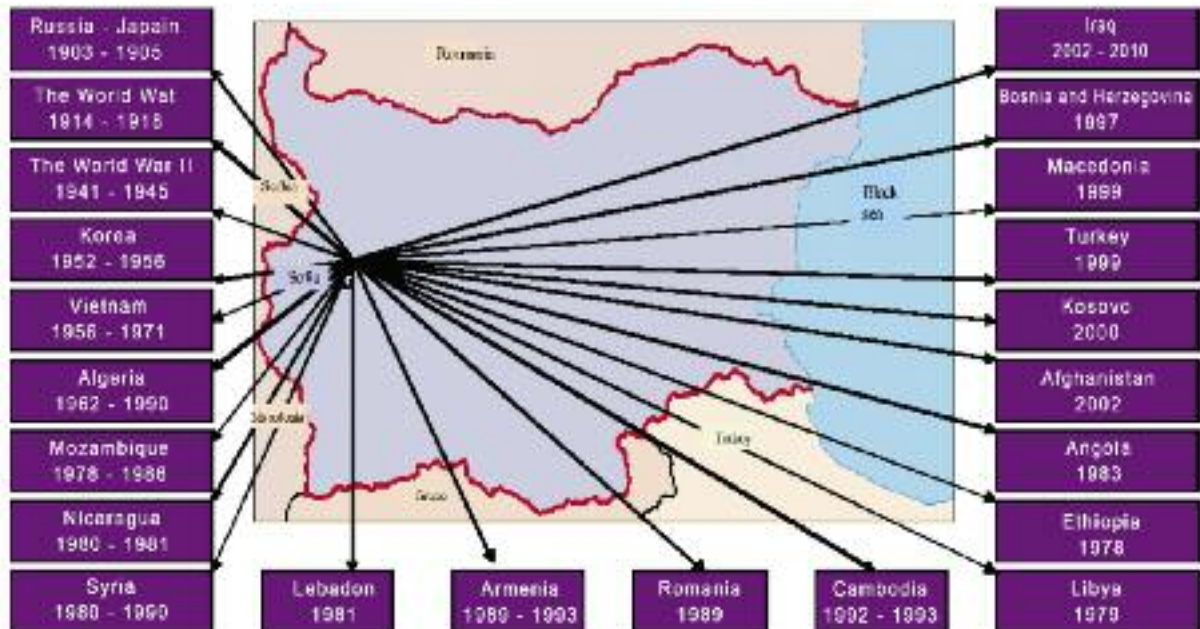
This structure is in accordance to the increasing activities of military medical specialists in the field of diagnostics, treatment, research and education.

During its over one century progress (120 years) MMA has developed and established organization and capabilities to ensure medical support to entire spectrum of military operation, including the assistance to civilian health care system in case of humanitarian relief and disaster relief operations. In the recent decades with the increase of the disaster events' frequency and severity, on one hand, and on the other hand with the distinguished change in the security environment, not only on Balkan Peninsula, but worldwide, the Bulgarian Armed Forces are tasked by the Bulgarian laws to assist the civilian authorities in case of calamities. The lawmakers made it clear that all the capabilities of the Armed forces have to be utilized in disaster relief operations execution. What is more the military means and capabilities could provide assistance in disaster relief and humanitarian operations, and peacekeeping operations, as well, beyond of national boundaries:

- In peacetime in cases of natural disasters, industrial accidents and dangerous environmental pollutions, the armed forces are involved in prevention, direct protection of the civilian population, and search and rescue operations (para 67 the Law for defence and Armed Forces);
- Military formations of the armed forces can participate in humanitarian assistance and rescue operations abroad in accordance with the Bulgarian constitution and international agreements in which Bulgaria is a side (para 69 the Law for defence and Armed Forces);
- Military formations of the armed forces can participate in peace-keeping operations abroad in accordance with the Bulgarian constitution and international agreements in which Bulgaria is a side (para 69 the Law for defence and Armed Forces) (1).

As integral part of the Bulgarian Armed Forces MMA prepares equipment, educate and train medical specialist for disaster medical operations. The history of military medical assistance to national or foreign civilian authorities in disaster and humanitarian relief missions is as long as the history of the MMA itself. MMA specialists during this century long development have planned and executed more than 20 military medical missions in support of international disaster and humanitarian relief operations (*Fig. 1*).

## **MILITARY MEDICAL MISSIONS**



*Fig. 1*

First mission was in 1903-1905 and from 1952 military medical officers has been deployed abroad for supporting the national healthcare systems (2).

The aim of this study is to present the Military medical Academy, Sofia experience in disaster and humanitarian relief operations.

- In order to achieve the set goal the following topics are analyzed and discussed:
- Support to health sector reconstruction or/and development;
- Support to disaster or humanitarian relief operations;
- Lessons Identified form completed and ongoing missions.

### Materials and Methods

By the means of descriptive and comparative methods the experience gained during completed and ongoing military medical missions in support to humanitarian and disaster relief operations is presented and analyzed.

## Results and Discussions

From the analyses performed on the available database (3, 4) regarding military medical involvement in relief operations (disaster and humanitarian, the peacekeeping missions included) the main areas where military medicine provided and is providing assistance to national and foreign healthcare authorities are the support to the healthcare system reconstruction and development in the recovery period and provision of treatment and preventive medicine capabilities during the response period.

MMA supported and is supporting the reconstruction and development of the national healthcare systems in more than 14 countries. During the different military and civil-military missions MMA has provided:

- Specialists for providing practical training of Host Nation medical specialists. Great majority of the prominent specialists of the MMA have been deployed to foreign countries in order to develop educational programs or establish courses for post-graduate specialization of the medical specialists and healthcare providers. The established during the years practice, proved to be efficient, is after establishing the courses to lead courses for tutors and instructors education and training in order to transfer the knowledge to the host nation providers;
- Specialist for establishing of clinical departments – Professors, associated professors and approved clinicians were deployed in different military and civilian hospitals with the task to establish the approved by the practice in the Bulgarian military medical installations, clinical or laboratory structures;
- Educational and tutorial medical teams for enhancing Host Nation medical and military medical education – Medical teams were deployed to the military or civilian hospitals in order to fill the medical capabilities gaps, in post war countries in particular. The main objective of these teams is not only to provide medical assistance to the local population, but to train and transfer experience and knowledge to the host nation's medical specialists;
- Medical and technical teams for implementation of innovative diagnostic and treatment protocols were deployed in several hospitals;
- Bulgarian Armed Forces Medical Service has offered the possibilities for postgraduate specialization in Military Medical Academy of foreign civilian and military physicians, nurses and medical technicians. This approach was and it is highly appreciated by our partners.

Other direction of providing assistance to the civilian healthcare authorities is the direct involvement of Bulgarian military medical specialists in the disaster medical management. The provided support to disaster relief medical operations has been performed by deploying medical means and capabilities for joint treatment and medical evacuation activities. MMA has deployed:

- Medical teams – Mainly surgical teams were and are deployed in support of the disaster and humanitarian relief operations. The professionalism and the level of training and preparedness to work in austere and hostile environment, constantly demonstrated by the Bulgarian military medical teams in disaster medical management have gained national and international recognition and acknowledgment.
- Field hospitals – Hospitals for treatment of war casualties were deployed in some of the missions. The frequently demonstrated local citizens' preference for treatment in the deployed field hospital instead of the solid one in the vicinity, is incontestable proof for the highly acceptance and recognition of the quality of the medical assistance delivered by the Bulgarian military medical specialists;
- Medical specialists for enhancing the Host Nation hospitals' capabilities have been and are deployed in civilian and military hospitals in order to fill the gap in particular field of the medicine.

MMA has established a specific entity for education and training of medical specialist for participation in disaster and humanitarian medical relief operation in support to the civilian authorities – the Military Medical Detachment for Emergency Response (MMDER). MMDER keeps constant readiness to provide qualified and partly specialized medical care in the event of natural and man-made disasters in peace time for meeting the medical needs of the civil population in Bulgaria and the Balkan region, and worldwide, when required. The main objectives of MMDER are:

- Train and qualify medics for disaster medical management and support;
- To move in timely manner after the alert to the disaster zone and to deploy; - to provide qualified triage - to provide specialized medical care in accordance with the type of the damaging factor;



- To treat on-site un-transportable casualties when necessary; - to prepare for evacuation all the injured who need; comprehensive medical care in specialized hospitals and MMA.

Some of the MMDER missions are listed below:

- Sofia 1992 - railroad crash – 50 injured;
- Plovdiv 1993 - chemical accident - 150 injured;
- Galabovo 1994 - electric power station accident – 30 injured;
- Radusha, FYROM - 1999, refugee camp – 15 000 refugees;
- Turkey - 1999, earthquake – 400 injured;
- Medical support during multinational missions abroad: Bosnia, Kosovo, Afghanistan, Iraq.

MMA assists the civilian healthcare authorities by providing support to humanitarian missions with deployment of highly specialized and properly equipped teams:

- Preventive medicine teams;
- Hazards detection's teams;
- Epidemiological surveillance and social hygiene teams;
- Refugee camps medical management.

## Conclusions

As a result of performed analyses the authors are highlighting the following Lessons Identified:

- For proper execution of the medical support mission detailed and accurate pre-deployment medical assessment is required;
- The provision of own logistic support to the deployed medical formation is of utmost importance, not only for the safety of the personnel, for the success of the mission, as well;
- The main still pending challenge is the sustainment of the deployed military medical teams, especially in humanitarian crises assistance;
- Liaison with civilian authorities has to be the first step in the military medical mission execution;
- Team members professional and mentor's training has proved to be valuable for the specialist to be prepared for facing the challenges, in reconstruction and development period, in particular;
- Team members' physical and psychological training is an obligatory element of the training program, in order to prepare the medics to endure the physical and psychological stress they are to face during disaster and humanitarian relief operations;
- National and international civil-military exercises are the best possibility acquired knowledge and practice to be trained with the civilian counterparts.

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