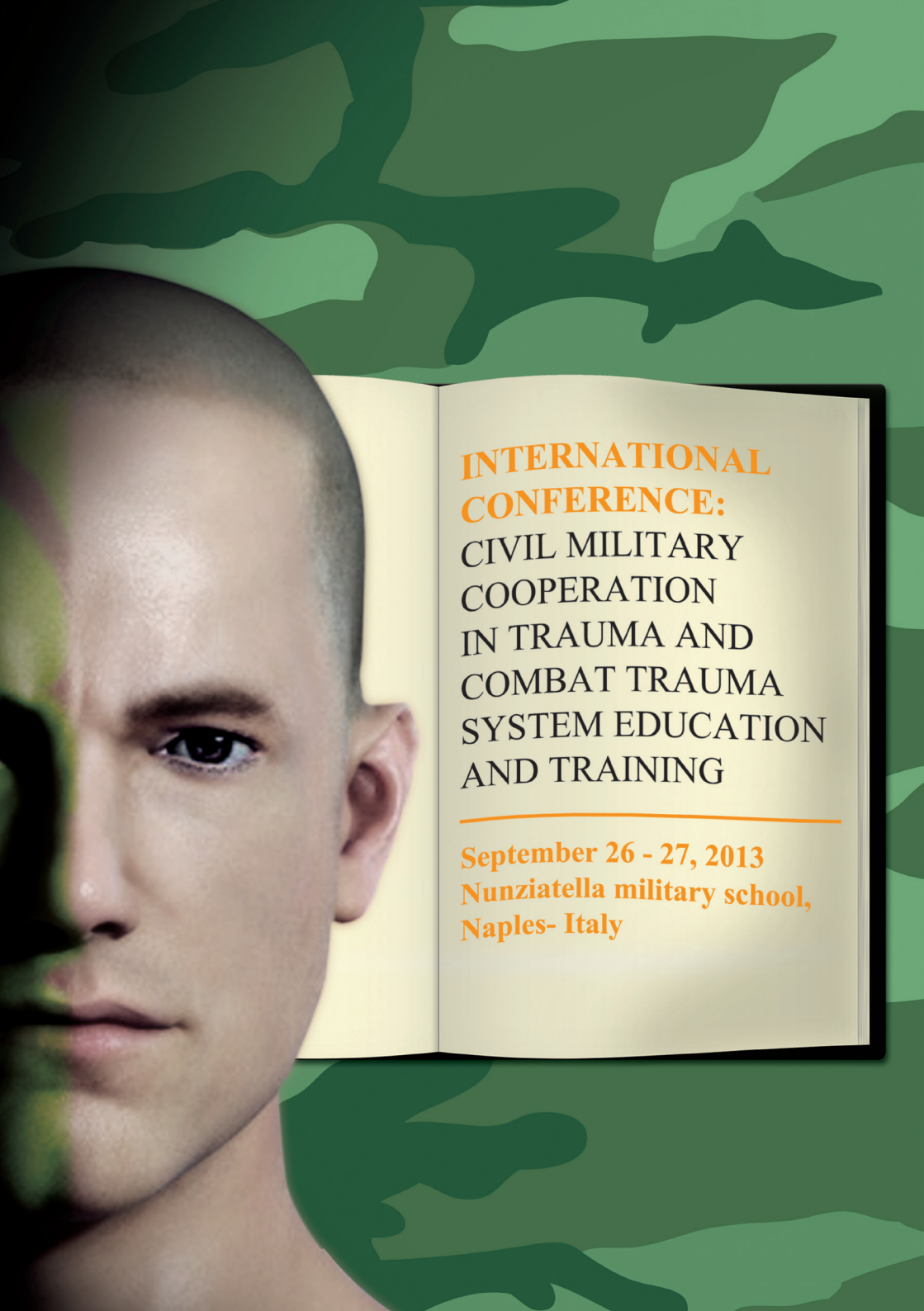

INTERNATIONAL CONFERENCE:
CIVIL MILITARY COOPERATION IN TRAUMA AND COMBAT TRAUMA SYSTEM EDUCATION AND TRAINING

September 26 - 27, 2013
Nunziatella military school, Naples- Italy

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Welcome Message

Dear Colleagues,

It is my honor and pleasure to extend you an invitation to attend the International Conference "Civil Military Cooperation in Trauma and Combat Trauma System Education and Training".
This Conference is organized by the Army Logistics Command, Department of Health, Rome and the International Disaster Medicine Association (IDMA), in collaboration with A.O.R.N. "A. Cardarelli", Naples, A.O. Hospital "Niguarda Ca'Granda" - Trauma Team, Milan, Maggiore Hospital, Emergency Department, Bologna, University of Modena and Reggio Emilia, School of Medicine, Military Academy of Modena, US Naval Forces Europe Medical, Naples, NATO Allied Joint Force Command Headquarters, Medical Division, Naples and Policlinico Militare "Celio", Rome, Health and Veterinary Services Studies and Researches Centre, Rome, to be held in Naples, at the Nunziatella Military School, on 26th and 27th September 2013.
This Conference is an excellent opportunity for civilian and military medical personnel to share and exchange information and experiences in the tutorial and training either in Combat Trauma and Trauma Systems establishment and development and Medical Support and Management in case of calamities.
We look forward to welcoming you in Naples.

Yours sincerely,

Head of the Health Department, Army Logistics Command, Rome	**President of the International Disaster Medicine Association, Naples**
BG Dr Nicola Sebastiani, MD	Dr Giuseppe Noschese, MD

Honorary Committee

President of the Conference

MG Dr Francesco Tontoli, MD

Deputy Commander and Health Department Head, Italian Army Logistics Command, Rome, Italy

Honorary Presidents of the Conference

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Inspector General of the Military Health, Defence General Staff, Rome, Italy

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Prof Aldo Tomasi

Rector University of Modena and Reggio Emilia, Modena, Italy

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Vice President, International Disaster Medicine Association (IDMA), Naples, Italy

Prof Osvaldo Chiara, MD

Trauma Team Head "Niguarda Ca' Granda" Hospital, Milan, Italy

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Campania Army Command, Naples, Italy

Mr Lorenzo de Gennaro
Poliambulatory of Campania Army Command, Caserta, Italy

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Col Dr Rostislav Kostadinov, MD, PhD
Deputy Medical Advisor/Medical Plans&Ops Staff Officer, Allied Joint Force Command Headquarters, Naples, Italy

26TH | SEPTEMBER | 2013

0900 Welcome remarks
COL M. Napoletano

0905 Opening remarks
MG F. Tontoli, MD
Attending Authorities

0910 Conference objective and tasks
BG N. Sebastiani, MD

MODERATOR PANEL 1 - Education in the field of trauma system, combat trauma system and disaster medicine

0920 **Combat trauma/disaster medicine educational training for the italian army**
BG G. Mammana, MD

0940 **Disaster medicine/military medicine similarities in trauma system and combat trauma system education**
COL R. Kostadinov, MD

1000 Coffee break / poster discussion

1030 **"Crisis management and disaster response center of excellence - objectives, tasks, challenges"**
LTC D. Dimitrov, MD

1100 **Trauma system educational challenges - italian experience**
Prof A. Barbarisi, MD

1120 **Medical intelligence in the trauma system and combat trauma system education**
G. Noschese, MD

1135 **Moderators remarks and discussions**

MODERATOR PANEL 2 - Military medical preparedness

1150 International disaster medicine association survey results regarding military personnel medical preparedness in case of disasters
BG R. Mattei, MD

1200 Ready for take off? A theoretical concept to harmonise the civilian HEMS and military SAR activities in Hungary
P. Turi, MD

1220 NATO medical staff officer required qualifications
LTC P. Vekszler, MD

1240 Vascular surgery in emergency situation: a essential asset
Prof G. Coppi, MD

1300 Trauma: military-civil experiences and prospectives...
CPT (CRI) G. Rocchi, MD

1320 Moderators remarks and discussions

1340 Lunch

MODERATOR PANEL 3 - Training programs and experience in civil military medical cooperation

1440 Military medical academy sofia experience in disaster medicine/trauma system education
COL R. Kostadinov, MD

1455 The effectiveness of simulation in medical emergency. First results of training project's proof-of-concept. The MITAKA project
BG F. Orsini, MD

1510 Balkan medical task force - an example for civil-military medical cooperation on field of disaster medicine
COL N. Zec, MD

1530 "Crisis management and disaster response center of excellence - training program"
LTC D. Dimitrov, MD

1545 The first ever real cooperation between the civilian HEMS and military SAR forces during a mass catastrophy in Hungary
P. Turi, MD

1605 Moderators remarks and discussions

1620 Coffee break

MODERATOR PANEL 4 - Civilian medical preparedness for emergencies

1640 International disaster medicine association survey results regarding physicians' medical preparedness in case of disasters
G. Noschese, MD

1650 Pediatrics for emergency
COL A. Masetti, MD

1710 Military ambulances functions and capabilities in operations, in training and exercises, in peace time
COL M. Tirico, MD

1730 Italian Campania region environmental pollution – health challenges and possible medical response
Ing. G. Mocerino

1750 Moderators remarks and discussions

1800 Sponsor's panel

1820 Panel discussion

1830 Closing remarks

27TH | SEPTEMBER | 2013

0900 Opening remarks
BG R. Mattei, MD

MODERATOR PANEL 5 - Clinical challenges

0905 Crises and management the public expectation
HE Amb C. Risi

0915 International Cooperation and Advanced Surgical Training: a synergy
S. Cozzolino, MD

0930 Trauma system - National experience round table:
Moderators: *M. Grillo, MD - L. Vicenzo, MD - V.Pilone, MD*

Traumatic hemorragic shock: the therapeutic approach - *A. Brillantino, MD*
Chest trauma - *P. Arganese, MD*
Liver trauma injury - *R. Tarquini, MD*
Splenic trauma - *S. Ruggiero, MD*
Major pelvic trauma - *E. Villamaina, MD - A. Mottola, MD*
Damage control - *M.Rutigliano, MD - S. Reggio, MD*
Plastic and reconstructive surgery for trauma - *F. Wirz , MD - A. Alberico, MD*
Regenerative surgery and traumatic injuries: present and future of stem cells - *A. Almadori, MD*
Negative pressure wound therapy for soft tissue injuries - *José M Serra Mestre, MD*
Advanced biomaterials: focus on new materials for trauma technology - *G. Pitingolo, MD*
Endovascular treatment of thoracic aorta trauma - *G.C Accarino, MD*
Laryngeal external traumas: arytenoid dislocation - *A. Papa, MD*

Coffee break

MODERATOR PANEL 6 - Experience and competence

1145 Lectio Magistralis Niguarda Trauma Center: hub for the severely injured ABA of the Milano urban area
Prof O. Chiara, MD

1220 Education for major emergences - the Bologna experience
G. Tugnoli, MD

1235 Possible buildup of the “clinical competence” in emergency in students of medicine today in Italy?
Prof. P. Ventura, MD

1255 International disaster medicine association survey results regarding participants preferences on educational and training courses
COL R. Kostadinov, MD

1305 Moderators remarks and discussions

1340 Lunch

MODERATOR PANEL 7 - Specifics requirements to the disaster/ trauma and combat trauma system education and training

1440 Rapid detection for biological warfare agents and unusual pathogens in combat assets
CPT F. Spagnolo, RPh

1500 Build the specific competence for military medical doctors; the experience of academy of Italian army in Modena
COL G. Masia, MD

1520 Infectious diseases in disaster medical education - necessity and significance
LTC Popov, MD - COL A. Parashkevov, MD

1535 The military corps of the sovereign military order of malta: activities, roles and interaction with the italian army
V.D. Bianchi, MD - G. Saviano, MD

1550 Trauma training and education
Prof. O. Chiara

1605 Coffee break

MODERATOR PANEL 8 - National practice

1630 Preparing the United States Naval Hospital Naples, Italy for disaster
Mr. M. Quinn

1645 Training of military medical personnel to deployment in operational areas, the experience of Italian navy "combat medicine course": evolution present and future prospects
CDR F. Fracasso, MD - RA R. Vigliano, MD

1700 Electronic health records: from the field to role/echelon 4
CPT (CRI) A. Lai, MD

1715 Moderators remarks

1730 **Open discussions**

1750 **Final remarks**
LTG F. Marmo, MD

1800 **Summary of the conference results and way ahead**
COL R. Kostadinov, MD

Panels and Moderators

DAY 1

1.Education in the field of Trauma System, Combat Trauma System and Disaster Medicine

Moderators: MG M.A. Germani, MD
MG G. Lupini, MD
Dr G. Sirabella, MD

2. Military Medical Preparedness

Moderators: MG A. Angellotti, MD
BG M. Nardi, MD
RA Vigliano, MD

3. Training Programs and Experience

Moderators: BG D. Cioffi, MD
Dr G. Di Grezia, MD
BG R. Mattei, MD

4. Civilian Medical Preparedness for Emergencies

Moderators: Prof. G. Paolisso, MD
Ing. G. Mocerino
COL. A. Parashkevov, MD

DAY 2

5. Clinical Challenges

Moderators: HE Amb C. Risi
BG L. D'Anna, MD
Dr G. Noschese, MD

6. Experience and Competence

Moderators: Prof. O. Chiara, MD
Dr. S. Cozzolino, MD
COL R. Kostadinov, MD

7. Specifics requirements to the Disaster/ Trauma and Combat Trauma System education and training

Moderators: Prof. M. De Bellis, MD
HE F. Malvano
COL J. Frerichs, MD

8. National Practice

Moderators: Avv. A. Maiello
Dr G. Tugnoli, MD
Ing. C. Verdoliva

ABSTRACTS - Day 1

Title: Disaster Medicine and Military Medicine similarities with Combat Trauma and Trauma System

Author: Col Dr Rostislav Kostadinov, MD, PhD
Institution: Military Medical Academy, Sofia, Bulgaria

Introduction: Combat Trauma and Trauma Systems are designed to provide better organization and resources for provision of prompt and efficient response to situations that differs significantly from the daily medical activities. Both disaster and military medicine are studying, developing and implementing standing operating procedures that improve the medical support to casualties in austere and hostile environment where the available medical means and capabilities are in disparity with the required.
The aim of this study is to present the similarities between Disaster and Military Medicine education and training with the requirements towards Combat Trauma and Trauma Systems education and training.
By the means of descriptive and comparative **methods** the education and training processes were described and compared. Deductive analysis was applied in order to depict the main areas where the processes coincides or could enhance each other
As a **conclusion** the author presents an overview regarding possible cooperation in training and education between the Disaster Medicine, Military Medicine, Trauma System and Combat Trauma System.

Key words: Disaster Medicine, Military Medicine, Trauma System and Combat Trauma System, Education and Training.

Contact: Dr Rostislav Kostadinov, MD, PhD
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Title: Medical intelligence in the trauma system and combat trauma system education

Authors: Col Dr Rostislav Kostadinov, MD, PhD[1], Dr Giuseppe Noschese, MD[2]; LTC Georgi Popov, MD, PhD[1]
Institution: [1]Military Medical Academy, Sofia, Bulgaria
[2]AORNA "A.Cardarelli", Naples, Italy

Introduction: Trauma and Combat Trauma Systems objective is to provide the best and the rapidest possible medical support to the casualties, within available medical means and capabilities.
While the significance of simplified medical techniques and standard operating procedures teaching and training is not questioned, the medical intelligence procedures are frequently judged as something part of the daily medical activities, therefore well-known and not required in the curriculum of Combat Trauma and Trauma System educational and training courses.
The aim of this study is to present the importance of thoroughly performed Medical Intelligence in the Trauma and Combat Trauma system tutorial processes.
By the means of descriptive and comparative **methods** the inputs required by the Medical Intelligence for assuring the efficiency and the safety of the performed Trauma and Combat Trauma systems medical activities were analyzed. Deductive analysis was applied in order to depict the main Medical Intelligence knowledge and skills to be inserted in the respective tutorials programs.
As a conclusion the authors highlighted the requirement for Medical Intelligence education and training for better preparedness and readiness of the both Trauma and Combat Trauma Systems.
Key words: Trauma and Combat Trauma Systems; Medical Intelligence, Training and Education

Contact: Dr Rostislav Kostadinov, MD, PhD
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Email: rostikosti@abv.bg

Title: International disaster medicine association survey results regarding military personnel medical preparedness in case of disasters

Authors: BG Dr Renzo Mattei, MD, Dr Giuseppe Noschese, MD, Col Dr Rostislav Kostadinov, MD, PhD
Institution: IDMA

Introduction: International Disaster Medicine Association (IDMA) is a non profit international organization with main objective to provide forum for discussions, education and training on various disaster medical support issues in order to ameliorate disaster medical preparedness of population as a whole and of specific groups of society.
From March to August 2013 IDMA performed survey regarding the individual perception about readiness and preparedness for survival and assistance to the medical support in case of disasters. The set goal of this survey was to evaluate the status of community preparedness and the need of specific focused courses on disaster medical support.
The aim of this publication is to present the survey results regarding the military personnel medical preparedness in case of disasters.
By the means of the descriptive **method** the obtained results regarding military personnel basic disaster medical support knowledge and skills and medical information exchange are presented. Comparative method and deductive analysis were applied in order to analyze the military personnel readiness to assist to the disaster medical support to the affected population.
As a conclusion Authors are presenting analysis of the military personnel disaster medical preparedness self evaluation.
Key words: International Disaster Medicine Association; Disaster Medical Preparedness, Medical Information Exchange, Disaster Medical Support

Contact: Dr Rostislav Kostadinov, MD, PhD
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Title: The first ever real cooperation between the civilian HEMS and military SAR forces during a mass catastrophy in Hungary

Author: Dr Peter Turi, MD

Over the last decades the civilian HEMS and the SAR service provided by the Hungarian Air Force have operated parallel, next to each other. Despite the fact that from time to time there have been mutual excercises (1-2 annually) operations remained sporadic. While the HEMS performed many thousand primary and secondary missions the SAR activity was limited to trainings and technical support (eg. flying sandbags) during rare natural diseasters like floods.
With the modernisation process of the civilian HEMS service the dialogue has also started between the two relevant organisation. Theoretical preparations between 2006 and 2010 resulted that the the very basics of a practical cooperation during an acute danger situation were established.

And on the 4th of October, 2010 the time has come. During a long afternoon 4 civilian HEMS and 2 military (SAR + transport) helicopters have flown the first ever acute rescue mission in west Hungary providing medical care and airlift for 29 people with chemical burns, flying them to 4 different cities.

The study will tell the story, draw the consequence and give some considerations for the future.

Contact: Peter Turi

Title: NATO medical staff officer required qualifications

Authors: Col Dr Rostislav Kostadinov, MD, PhD, LTC Dr Peter Vekszler, MD, Col Alexander Parashkevov, MD, PhD
Institution: NATO JFC HQ Naples, Italy

Introduction: After the Berlin Wall fall the objectives and scope of NATO activities have been significantly changed and enhanced. A new horizon as a support to or performing humanitarian missions and disaster relief missions are becoming part of NATO forces possible engagements. Related to the missions and goals the requirements towards medical staff officers have significantly changed.
As the training of staff officers assigned to NATO medical positions is sending nation's responsibility, the new requirements related to the objectives have to be studied.
The aim of this study is to present some of the basic medical and staff work knowledge and skills medical officers have to be trained to prior their appointment to NATO Command Structure medical staff officer positions.
By the means of descriptive **method** the daily activities in NATO Joint Force Command Headquarters Naples Medical division were described. Comparative method and cluster analysis were applied in order to define what knowledge and skills are required to meet the medical staff officer requirements.
As a conclusion the Authors highlighted the requirement for extensive training program for medical officers prior their appointment to NATO command structure medical positions.
Key words: NATO Transformation, Comprehensive Approach, Staff Officer Qualification

Contact: Dr Rostislav Kostadinov, MD, PhD
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Title: Vascular surgery in emergency situation: an essential asset

Author Prof Dr G. Coppi, MD

Introduction: Arterial and venous disruption in war trauma is associated to a high rate of death and amputation. Appropriate and rapid vascular intervention procedures are essential in reducing the incidence of these dreadful outcomes.
The largest experience in repair of traumatic vascular injuries was obtained during Vietnam war. For the first time, promptly evacuation of wounded soldiers (through extensive use of helicopters), rapid diagnosis (also through the introduction of continuous-wave Doppler sonography) and correct reconstructive treatment resulted in a major reduction of death and amputation rate.
These findings are reported in detail in the masterpiece work of Norman M. Rich and have become the fundamentals of modern vascular traumatology. Furthermore, in last decades it was assessed the importance of establishing dedicated guidelines for management of war vascular injuries.

Title: Military Medical Academy Sofia experience in disaster medicine/trauma system education

Authors: Col Dr Rostislav Kostadinov, MD, PhD, Col Prof Dr Evgeni Belokonski, MD, PhD, DSc, Col (ret) Prof Dr Kamen Kanev, MD, PhD, DSc
Institution: Military Medical Academy, Sofia, Bulgaria

Introduction: Military Medical Academy (MMA) Sofia has been established more than 120 years ago. During its more than century history the established garrison hospital has evolved to medical installation with scientific and educational activities focused not only to military medical specialists.
Responding to the contemporary demands the MMA nowadays is one of the leading medical educational centers of Republic of Bulgaria. Special emphasis, along with clinical specialties, is given to the organizational graduation programs as medical management, medical planning, disaster medicine, field surgery, preventive medicine etc.
The aim of this publication is to present the experience of MMA in the disaster medicine and Trauma and Combat Trauma System education.
By the means of descriptive **method** the tutorial activities education and training, aimed at formation of specialist able to plan, organized and manage medical support in extreme circumstances are presented. Comparative method and cluster analysis were applied in order to analyze how the implemented tutorial programs are responding to the educational requirements.
As a conclusion the Authors discussed possible means for improving the ongoing tutorial process.
Key words: Military Medical Academy, Disaster Medicine Education and Training, Combat Trauma System Training, Military Medical Detachment for Emergency Response, Chair Disaster Medicine and Toxicology

Contact: Dr Rostislav Kostadinov, MD, PhD
Colonel, BGR A
Email: rostikosti@abv.bg

Title: The Effectiveness of Simulation in Medical Emergency. First Results of Training Project's Proof-of-Concept. The MITAKA Project

Author BG Dr F. Orsini, MD

The Medical and Veterinary Military School of Rome is the only medical training centre recognized by the Italian Army General Staff and defined as the leader centre in training by the Defense Staff. For approximately 5 years the School has performed advanced simulations to train medical personnel operating, above all, in extreme conditions. The School has an indoor simulation area of 3,000 m2 provided with realistic scenarios (armored vehicles, helicopters, training surgical room, etc.); the simulation area is designed for medical rescue training in combat area through cutting edge technologies, often designed by the School itself.
During these 5 years 3000 soldiers , 300 medical officers / S.U. and 700 "soccorritori militari" (i.e. combat medics) - have tackled the trial of advanced simulation areas.
A proof-of-concept has been conducted on the actual effectiveness of such training model; the report summarizes methods and results of the study. Furthermore, the newest innovations in the field, presently in use at the School, are described: the F.A.I. (i.e. Interactive Distance Learning) and, above all, the M.I.T.A.K.A. - the new experimental equipment for both training and operational employ.
Discussion Identification of specific tasks should be accomplished sequentially from the battlefield, through the field hospital, up to third-level military or civil hospital.
It should be also noted that, at the present, the progress of medical technology allows wider possibilities of diagnosis and treatment right in field hospitals, where it's now possible to use compact duplex ultrasound, computed tomography and portable C-arms systems. Moreover, the use of this equipment allows even not thoroughly experienced surgeons to perform vascular and endovascular procedures, with eventual remote support of vascular experts through telemedicine.
The same experience derived on the battlefield could be applied to the civilian setting, where the involvement of blood vessels in gunshot wounds is common, with vascular traumatology becoming

an important issue in emergency medicine. Specific to urban emergencies is also the occurrence of natural catastrophes like earthquakes, as it has recently happened in the area surrounding Modena in 2012. Our experience confirmed that, in these situations, vascular involvement seems to be less relevant in emergency, as the most frequent event is crush syndrome. Crush syndrome treatment first requires appropriate intensive care support while vascular involvement (mainly deep vein thrombosis and subsequently pulmonary embolism) tends to develop later.

In conclusion, the presence of vascular surgery units in military hospitals is mandatory due to the large involvement of blood vessels in war traumas. Only rapid and appropriate treatment of injured vessels can reduce the risk of death and especially of amputation, which has a tremendous impact on the quality of life of otherwise young and healthy people. Military surgeons, at our advice, should receive a dedicated training in vascular surgery to better cope with requirements of their important role.

Title: Balkan Medical Task Force – an example for Civil-Military Medical Cooperation on field of Disaster Medicine

Author: Col Dr Nikola Zec, MD
Institution: Military Medical Academy, Belgrade, Serbia

Introduction One of the key objectives of regional cooperation is synchronization of valuable resources, experiences and knowledge, therefore an integrated concept offers an added value and mutual benefits to our common efforts.
Aim: To establish a regional military medical capacity, able to give rapid response to a broad specter of situations, from natural disaster to international operations.
Purpose: Enhance and enable national medical capacities to operate within the framework of an regional multi-national unit. Strengthen the regional military medical capability to support the civilian community. Enable the national military medical services to build up standardized capacities, with a high level of interoperability within the region.
BMTF Concept:

- Module based deployable military medical unit.
- Mission tailored for a broad spectrum of static operations.
- Multi-national manning and subunits, down to teams.
- NATO standardized (NATO CREVAL program/ AMedP-27).
- Lead nation for the unit will be on a rotational basis.
- Will have a ready and operational organization (CO/HQ). Standby subunits will be located in national home bases.

Title: NATO crisis management and disaster response centre of excellence

Author: Col Dimitar DIMITROV PhD

New risks, challenges and threats in the global security environment require an adequate security policy to protect the modern world. NATO Smart Approach to defence is aimed to develop and implement new capabilities for improving collective security while reducing costs. The long-time established NATO practice of collective knowledge and capability building and sharing is relevant to all Nations, and it is vital for the Alliance's interaction with other major players.

The current economic crisis as well as the lessons learned from Allied operations urged NATO to adopt a number of smart strategic approaches to the practice of capability building. One of the major tasks of the 2010 Strategic Concept commits the Alliance to "prevent crises, to manage conflicts and stabilize post-conflict situations, including by working more closely with international partners, most importantly the United Nations and the European Union". Crisis management is the broadest NATO operational area that indicates the need of developing "NATO modest civilian capability" to interface more effectively with other International Organisations.

For the execution of one of Alliance's core tasks – Crisis Management, NATO set the priority to develop both military and civilian capabilities for effective crisis and emergency prevention and management. Responding to the need of support to crisis management and disaster response (CMDR) capability building, the Republic of Bulgaria became a Framework Nation for the establishment of a Crisis Management and Disaster Response Centre of Excellence (CMDR COE). The establishment of CMDR COE was declared by the President of the Republic of Bulgaria at the Lisbon Summit. The execution of the project follows established procedures coordinated with NATO ACT. In the context of the need of prioritization, specialization and cooperation, and to help fill a gap in collective capabilities building for crisis and emergency management, Bulgaria establishes a new NATO Centre of Excellence. * NATO CRISIS MANAGEMENT AND DISASTER

RESPONSE COE is located in Bulgarian capital Sofia.

The GUIDING PRINCIPLES embodied in the CMDR COE CONCEPT are:

- OPEN FOR NATO NATIONS & PARTNERS
- JOINT, MULTINATIONAL, INTERAGENCY
- ADDED VALUE WITHOUT DUPLICATION
- FOCAL POINT OF CMDR COE COMMUNITY OF INTEREST
- SHARING OPERATIONAL COST AMONG SPONSORING NATIONS
- BASED ON MC APPROVED CRITERIA FOR ACCREDITATION
- NATO NAC DECISION – INTERNATIONAL ORGANIZATION
- CONFORM TO NATO PROCEDURES, DOCTRINE AND STANDARDS
- CLEAR FUNCTIONAL CONNECTIONS

THE VISION OF THE CENTRE is to become an internationally recognized and respected body, which contributes significantly to research, building and development of NATO, nations and partners' crisis management and disaster response military and civilian capabilities. *

THE MISSION OF THE CENTRE is to act as the catalyst for improvement of NATO, nations and partners capabilities in crisis and disaster response operations through collaborative partnerships. *

THE GOALS OF THE CENTRE ARE:

a. To become NATO's transformation hub of expertise in the crisis management and disaster response area;
b. To enable close cooperation between NATO and International Organisations within the agreed frameworks, in the development of an international collaborative partnership approach to the building of crisis management and disaster response capabilities. This requires the effective application of both military and civilian means;
c. To apply a comprehensive approach in support of NATO, Nations and partners' military and civil capability building by:
    - Improving knowledge management and developing and sharing analysis and lessons learned;
    - Promoting the effective sharing and application of civil and military best practices in crisis and disaster response

operations;
- Supporting the improvement and application of crisis response measures;
- Providing education and training to Nations and partners' personnel in line with NATO's crisis management and disaster response policy, Standards, Tactics, Technics and Procedures.
- To be an internationally recognized focal point for a Community of Interest in the area of crisis management and disaster response;

d. To foster continuous self-development of the CMDR COE by conducting results-oriented research, studies, experiments, analysis, education and training, as well as by applying lessons learned and best practices;
e. To harmonize military and civilian capabilities for conducting exercises and experiments by defining and developing scenarios, programmes and tools in close cooperation with the Community of Interest. *

THE PRODUCTS MAID OF THE CENTRE ARE FOLLOWING:

- COURSES
- WORKSHOPS
- SEMINARS
- SYMPOSIA
- STRATEGIC DOCUMENTS
- RESEARCHES
- KEY STUDIES
- ANALYSES
- MEDIA PRODUCTS

CMDR COE ORGANIZATION

CMDR COE will be a multinational, interagency, joint, military and civilian, MOU-based organisation with Sponsoring Nations and the Framework Nation, the Republic of Bulgaria, represented by the Ministry of Defence. Pursuant to CM(69)-22 and in co-ordination with HQ SACT, the FN will apply for the NAC to activate it as a NATO Military Body and grant it international status under Article XIV of the Paris Protocol.

The major elements of CMDR COE organisation are:

a. The Steering Committee
b. Director;
c. Deputy Director;
d. Secretariat;
e. Education and Training Branch;
f. Transformation Branch;
g. Capabilities Branch;
h. Support Branch.

Under the CMDR COE Operational MOU, a Steering Committee (SC) will be established by the SNs under the permanent chairmanship of the FN. The Director of CMDR COE will report only to the SC. The SC will provide direction, guidance and advice to the Director of CMDR COE for the effective execution of his mission including the Centre's management.

There is no direct command and control relationship between CMDR COE and NATO Command Structure. Nor is there any command and control relationship between the FN and the CMDR COE.

So far, sponsoring nation, except Bulgaria are THE HELLENIC REPUBLIC and REPUBLIC OF POLAND

The core competencies of the Centre determine its place in the National, Allied and International Security Systems. The building of a NATO CMDR COE reflects Bulgaria's priority to support NATO by forming an inclusive body of specialized expertise of the institutions and science. It will serve as an intellectual platform for generating and managing knowledge and expertise as well as a focal point for community interest in the subject area.

In Allied environment, the centre will be a part of a common capability building organization, designed to specialize in one of Alliance's contemporary strategic priorities.

In International format, the centre will be a focal point for communication, cooperation and collaboration of specialized subject matter knowledge and expertise for the International Organizations, NGOs, universities and research centres, business organizations.

A NATO COE is Smart Defence in action, there are many benefits from joining the NATO CMDR COE, but the principle reason to join would be the significant cost saving over maintaining your own

national capabilities. The costs are shared which means that the NATO CMDR COE infrastructure, initial equipment and support staff, are provided by the Ministry of Defence of the Republic of Bulgaria. Other costs are shared between sponsoring partners, significantly reducing the cost to any individual nation whilst retaining the complete value of the centre's work for all:

- ADDED VALUE THROUGH PARTICIPATION: Through joining us as a Sponsoring Nation of the COE, nations will be able to realize many benefits, including:
- ACCESS TO MULTINATIONAL EXPERTISE – the CMDR COE membership will provide access to the collective knowledge of the Centre, including the results of studies, COE products and lessons learned.
- DIRECT INFLUENCE ON COE'S PROGRAMME OF WORK Sponsoring Nations will be able to shape the centre's annual Programme of work through the Centre's steering committee. This gives the opportunity to align the centre's work with national requirements and to support your nation's capability development
- ACCESS TO EDUCATION AND TRAINING - The Centre will be providing free courses to Sponsoring Nations' personnel. This is an additional mechanism for transferring knowledge for the benefit of national projects. Non-sponsoring nations will be required to pay course fees.
- INCREASED INTEROPERABILITY IN THE AREA OF CMDR - Collaboration both multi-nationality and with industry and academia, is a fundamental aspect of all CMDR Products, increasing the inherent interoperability of all products through the daily interaction of multi-national experts.

In conclusion: the main benefits from this project will help fill the gaps in collective CMDR capability. CMDR COE highlights a Tier I priority to establish a recognized subject matter focal point for expert Community of Interests that is attractive for all NATO Nations and Partners. For NATO and CMDR COE Sponsoring Nations it means more common ways and capabilities for Crisis and Emergency Management, both civilian and military, based on proved Allied policy and standards.
You can find more about the CMDR COE by visiting our web site.

Please do not hesitate to contact us when you have any questions or need of information. We have POCs in NATO HQ, and ACT. Contact information is provided on the slide. We are expecting all of you to visit the CMDR COE and to participate in its activities.

Title: Ready for take off? A theoretical concept to harmonise the civilian HEMS and military SAR activities in Hungary

Author: Dr Peter Turi, MD

The civilian HEMS and the Air Force provided SAR services and helicopter operations are still far from each other in Hungary.
While the civilian HEMS had an oppotunity to improve its fleet and establish a new concept of operations which resulted a huge development in the profession, the military run SAR is behind with decades in every aspect.
The need to develop the SAR service is evident, the only question is how and when.
The solution is within reach, the cooperation and the wish to do so is a demand by both parties. A theoretical concept was placed on the table of two ministers, however the green light is still missing.
The study will give an overview of a possible cooperation, discussing the every aspects of the profession from the trainings to everyday missions.

Title: International disaster medicine association survey results regarding physicians' medical preparedness in case of disasters

Authors: Dr Giuseppe Noschese, MD, Col Dr Rostislav Kostadinov, MD, PhD, BG Dr Renzo Mattei, MD
Institution: IDMA

Introduction: International Disaster Medicine Association (IDMA) is a non profit international organization with main objective to provide forum for discussions, education and training on various disaster medical support issues in order to ameliorate disaster medical preparedness of population as a whole and of specific groups of society.
From March to August 2013 IDMA performed survey regarding the individual perception about readiness and preparedness for survival and assistance to the medical support in case of disasters. The set goal of this survey was to evaluate the status of community preparedness and the need of specific focused courses on disaster medical support.
The aim of this publication is to present the survey results regarding the physicians' medical preparedness in case of disasters.
By the means of the descriptive **method** the obtained results regarding physicians' basic disaster medical support knowledge and skills and medical information exchange are presented. Comparative method and deductive analysis were applied in order to analyze the physicians' readiness to perform efficient and prompt disaster medical support to the affected population.
As a conclusion authors are presenting analysis of the physicians' disaster medical preparedness self evaluation.
Key words: International Disaster Medicine Association; Disaster Medical Preparedness, Medical Information Exchange, Disaster Medical Support

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Title: Italian Campania Region environmental pollution – Health Challenges and possible Medical Response

Author: Ing Giuseppe Mocerino
Institution:

Introduction: The environmental pollution in Campania region could be easily observed by everyone who wants to see it, but for diverse reasons if there are some recorded observation they are just a mere reporting of obvious facts. The origin of the environmental pollution e.g. the clandestine Toxic Industrial Materials processing or burial, an open air burning of the domestic and industrial waste, the health consequences of this pollution are mentioned in few reports and articles.
The recently published White Book is one of the rare attempts to present to the public what is reality in the so called Campania Felix region.
The aim of the publication is to reveal the origins of Campania region environmental pollution and to present the newly established by several medical and non medical entities in Campania region initiative for population health status monitoring and health risk management.
Descriptive method was applied for toxic materials environmental pollution origin analysis. By the means of comparative method and deductive analysis the main challenges health status monitoring and health consequences management systems were listed.
As a conclusion the author is presenting the main structure of the e-health system to be established.
Key words: Toxic Industrial Materials; e-health system; Environmental Pollution

Contact: Ing Giuseppe Mocerino

ABSTRACTS - Day 2

Title: Syrian Conflict and Terrorist Threat

Author: Dr Eli Karmon, PhD
Institution:

Introduction: For more than two years the civil war is ongoing in Syria. Both governmental and opposition forces are implementing all available means and capabilities for defeating the opposing party. Several times prior August 21 2013 the world was shocked by chemical weapons utilization, but nothing could prepare the mankind for the events of the morning of 21 August, when thousands civilian citizens became victims of coordinated gas attacks.
The dispersed warehouses for chemical weapons and their precursors, as well as the government instability are raising concerns about the possibility chemical weapons or chemical compounds to easily become in possession of extremist groups and used for terrorists' purposes.
Despite the fact that the USA and Russia have reached an agreement with the Syrian President for Syrian chemical arsenal destruction under the UN monitoring, the possibility of selling, robbery or just transferring of poisonous substances, ready or easily transformed to be used as chemical weapons, remains very high.
The aim of this report is to present the available data about the Syrian chemical arsenal and to analyze the probability part of the existing chemical weapons to change their possession, thus elevating the terrorist threat level.
By the means of descriptive **method** the available data about chemical weapons warehouses and their location is presented. Comparative method and deductive analysis were applied in order to evaluate the level of chemical threat related to the Syrian Chemical arsenal.
As a conclusion the author highlighted the requirement for thoroughly performed international monitoring on all sites and activities related to chemical weapons and their precursors in Syria.
Key words: Chemical weapons, Syria, Terrorist threat, Weapons of Mass Destruction Proliferation

Title: EU and the Creation of a Weapons of Mass Destruction Free Zone in the Middle East

Author: Amb Cosimo Risi

Institution: Italian Embassy to Switzerland/ European College of Parma

Introduction: The idea of an agreement in the Middle East to let off the nuclear weapons is launched in 1974 by Iran which presents to the United Nations General Assembly, together with Egypt, a proposal of Resolution. The 3263 Resolution is approved without any opposite votes, with the only abstention of Israel and Myanmar, but the iter of its adoption looks immediately difficult. The interference between the Free Zone process and the Middle East peace process is evident. The fact that Israel is not part to the NPT (Non Proliferation Treaty) also influences the adoption of the Resolution, which is reviewed with some changes every year. In the 1980s Israel removes its abstention so that the resolution is finally approved. During the Iran - Iraq war, chemical weapons are used by Iraq against Iran. There is the suspect that Iraq is doing researches in order to build nuclear weapons. Israel decides to bomb the Iraqi Osirak site in 1981 as a preventive measure. Egypt proposes the idea of a Free Zone to be named Weapons of Mass Destruction Free Zone in the Middle East. The issue of the Free Zone becomes crucial point of several international meetings and conferences.
The aim of this study is to present the steps taken and to be taken in order Weapons of Mass Destruction Free Zone to be established in the Middle East region.
Descriptive and comparative methods along with deductive analysis were applied in order the set goal to be reached.
Conclusion The Middle East region needs stability and development and democracy and openness to the world. The clash of civilisations is non only a phantasm of the conservative intellectuals. The proliferation of weapons continues notwithstanding the efforts in view of a general disarmament.
Key words: Chemical weapons, Terrorist threat, Weapons of Mass Destruction Proliferation

Title: International Cooperation and Advanced Surgical Training: a synergy

Author: Dr Santolo Cozzolino
Institution Center of Biotechnologies, A.O.R.N. A. Cardarelli, Naples

Globalization brings significant challenges, but it is also an opportunity for unifying health-care activity across international boundaries.
International Health Cooperation can be, and actually is regarded as an indicator of quality for the issuing country, as well as a way to share and spread scientific knowledge to other countries, developed and less developed.
Since 2001 Cardarelli Hospital is involved in the field of International Cooperation.
Through the Center of Biotechnologies, the Hospital provides clinical, surgical and scientific support to a wide range of cooperation projects, recognized and supported by the Italian Ministry of Foreign Affairs, the Italian Ministry of Health and Campania Region, such us the Collaboration with Charles Nicolle Hospital in Tunis; "Surgiland" Project, an integrated network for surgical and microsurgical training in cooperation with Tunisia and Morocco; GuineAid Project, a collaboration with the main Hospitals of Conakry (Guinea).
Through the established network of cooperation, there is a constant share of knowledge, also thanks to the ongoing activities with Tunisia, Morocco and Albania.
The main goal has been that of creating universal protocols or schemes - to be used to front health emergencies both in peace and in wartime - for effectively preventing and combating diseases.

Title: Traumatic hemorragic shock: the therapeutic approach

Author Dr. Antonio Brillantino, MD,PhD
Institution: Emergency and Surgical Department "A. Cardarelli" Hospital. Napoli, Italy.

Despite the recent advances in knowledge of trauma and hypovolemic shock pathophysiology, the management of patients with traumatic hemorragic shock still represents a big challenge and the mortality rate of these patients remains high. The key-points of treatment are represented by the interruption of hemorrhage and the fluid resuscitation that aim to improve the tissutal perfusion and to avoid organ failure and death. There is not yet a consensus about the amount and type of fluids to be used in trauma patients. Although the evidence suggests that aggressive crystalloid resuscitation is associated with significant morbidity in various clinical settings, avoidance fluids may lead to tissue hypoperfusion and organ dysphunction. The optimal resuscitative strategy, including fluid resuscitation, the use of vasopressor and blood transfusion, is still a matter of debate. Further studies with randomized trials are needed to define the adequate quantity and quality of fluid therapy, the standardized objectives for fluid resuscitation, timing of infusions, and whether to administer fluids at all.

Title: Advanced biomaterials: focus on new materials for trauma technology

Authors: G. Pitingolo[1], E.Torino[2]
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Introduction Military and civil fields, have benefited from technological innovation from biomaterials. However, while its expectancy continues to increase, organ failure and traumatic injury continue to complicate the quality of life.
The past half century has seen important growth in the use of medical devices. Cardiac, Orthopedic, and plastic surgeons are examples of medical specialists treating millions of patients each year by implanting supports varying from devices and prosthesis, for example pace makers and artificial hip joints, to implantable hearing aids. All such medical implants are made by special materials, known as biomaterials, defined as "materials intended to interface with biological systems to evaluate, treat, augment or replace any tissue, organ, or function of the body" [D.F. Williams, The Williams Dictionary of Biomaterials, Liverpool University Press, Liverpool, 1999].
Biomaterials offer to the surgeon a powerful set of instruments for treatment of some diseases or traumatic injuries and are found in "virtually" every instrument, device, implant, or piece of equipment in the operating room. In fact, surgeons have historically driven clinical application of biomaterials to the rapid development of biomaterials. Having an understanding of the materials available and their basic properties can contribute to better and more effective outcomes.
The principle classes of materials used as biomedical materials are Metals, Polymers, Ceramics, and Composite. These four classes are used singly and in combination to produce most of the implantation devices available today.
Advances in understanding disease and tissue regeneration combined with increased accessibility of modern technology have created new

opportunities for the use of biomaterials in unprecedented ways. Materials can now be rapidly applied and selected to target specific cells, change shape in response to external stimulus, and instruct tissue regeneration. Here we describe a few of these technologies with emphasis on targeted drug delivery vehicles, high-throughput material synthesis, minimally invasive biodegradable shape-memory materials, and development of strategies to enhance tissue regeneration through delivery of instructive materials.
The objective of this presentation is to give an overview of development and therapeutic application of advanced biomaterials.

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Title Endovascular Treatment of Thoracic Aorta Trauma

Authors: Accarino G.C.[1]; Fornino G. [1]; D'Alessandro A[1]; D'Alessandro Al1; De Vivo S[1].;Lao Martinez M[1].; Nicolella G. [2];
Institution: [1]Department of Surgery, Vascular and Endovascular Surgery, A. O. U. "O.O.R.R. S. Giovanni di Dio e Ruggi D'Aragona" Scuola Medica Salernitana, Salerno, Italy
[2]Anestesiology and subintesive care for Vascular Surgery A. O. U. "O.O.R.R. S. Giovanni di Dio e Ruggi D'Aragona" Scuola Medica Salernitana, Salerno, Italy

The outcome of treatment for traumatisms of Thoracic Aorta too if associated with multiple trauma has dramatically changed with the endovascular positioning of endoprosthesis (ETEVAR).
From January 2010 till July in the Vascular and Endovascular Surgery Unit of the A.O.U. "O.O.R.R. " S. Giovanni di Dio e Ruggi D'Aragona" in Salerno 16 Patients affected by Thoracic Aorta trauma have been treated; the most (14) were emergencies for street trauma because of motorcicle or car accidents, 2 were working trauma. Rupture of the Aorta with thoracic hemorrage was present in 4 cases (transection). In all the other cases an Angio CT scan done according to emergency protocols for all the vascular emergencies arriving in our Hospital showed an impending aortic rupture with hemorrage involving the aortic wall. Only two Patients died because of serious concomitant lesions.
The possibility of an immediate treatment avoiding either selective bronchial intubation either opening the chest with a very quickly and effective repair of the aortic wall in such severe diseases is certainly a very effective improvement in the treating lesions of the thoracic aorta.

Title: Regenerative surgery and traumatic injuries: present and future of stem cells

Author: Dr A. Almadori, MD

War and combat injuries in the modern era of improvised explosive devices (IEDs) and explosively formed projectiles (EFPs) introduce a novel set of trauma patients with high degree of tissue loss, highlighting the need for tissue regenerative options.

Massive musculo-skeletal wounds and disfiguring craniofacial trauma are devastating to wounded warriors and precise correction of soft tissues remains a challenge for reconstructive surgeons. Current treatments such as autologous tissue flaps or alloplastic implants can cause tremendous morbidity, including donor-site complications, implant migration and foreign body reaction.
Regenerative surgery and stem cells, able of self-renewal and the to differentiate into other cell type, represent a promising tool for treating militaty wounds. Regeneration of destroyed tissue have the potentiality to revolutionize the therapeutic approach and degree of recovery for soldiers both on and off the battlefield.

Title Acute Acoustic Trauma: How Do It

Authors: Cavaliere Michele[1], Pianese Annalisa[1], Oliva Flavia[2], Salomone Pasquale[1], Ricciardiello Filippo[1], Napolitano Domenico[2]
Institution: [1]ENT UOC, University "Federico II", Naples, Italy
[2]ENT UOC, Cardarelli Hospital, Naples, Italy

Introduction: Acute acoustic trauma (AAT) is a cochlear damage resulting from exposure to high-intensity sounds (explosions/ gunshots). It causes hearing loss (usually partial and involving high frequencies), tinnitus and intolerance to high-intensity sounds.
Hypothesis/Problem: The effectiveness of any therapy has not been demonstrated convincingly. Goal of treatment are hearing recovery and ear protection.
Aim: Examining patients with AAT, their hearing recovery after therapy and relation with some prognostic factors.
Methods: The study involves twelve patients with bilateral AAT, undergone to clinical examination, pure-tone and vocal audiometry, ABR and treated with a three-day e.v. therapy : Glycerol 10%, Desametasone, Pantoprazol and hyperbaric oxygen therapy, if symptoms onset was less than five days. Successive oral therapy was: Glycerol 10% (10 days), Flunarizine (one month), Methylprednisolone.
The results were analysed using the X^2 test for four variables: age of patient(</> 50 years), time lapse between onset of symptoms and start of treatment (</> 3 days), grade of hearing loss, type of audiometric curve (descending/rising/pantonal curve).
Results: Four patients (30%) had a partial recovery with reduction of tinnitus and eight patients (70%) had not hearing improvement and tinnitus permanance.
The statistical analysis was not significant for age and hearing loss grade, but significant for time lapse and type of audiometric curve.
Conclusions: Only one third of the patients, that was early treated, reported partial improvement in hearing and reduction of tinnitus.
Gender and grade of hearing loss have not effect on prognosis, while time lapse between onset of symptoms and treatment and type of audimetric curve are important prognostic factor.
It is raccomanded a prompt treatment for AAT with drugs and hyperbaric oxygen therapy.

Title: Laryngeal external traumas: arytenoid dislocation

Authors: Angelo Papa[1], Gaetana Manzo[2], Flavia Oliva[3], Monica Morandi[3], Filippo Ricciardiello[1]
Institution: [1]ENT department, Federico II University of Naples, Naples, Italy
[2]Department of Biomorphological and Functional Sciences, Federico II University of Naples; Naples, Italy
[3]ENT Department , Cardarelli Hospital, Naples, Italy

Introduction: The arytenoid dislocation (AD) is a rare traumatic laryngeal lesion generally due to internal injuries. However external traumas such as hand to hand combat and penetrating injuries of the neck are also related to AD.
Hypothesis/Problem: A lesion uneasy to diagnose and treat, with two different options of therapy, logopedic rehabilitation or surgery.
Aim: To define the more appropriate diagnostic/therapeutic pattern in AD caused by external traumas, considering the clinical experience acquired treating internal laryngeal trauma injuries.
Methods: Two patients (1 female, reporting a sport trauma of laryngeal region; 1 male, reporting an accidental trauma in the thyroid area) were admitted to ENT department of Federico II University. They underwent an accurate anamnesis, clinical examination, laryngoscopic exam, vocal spectrogram and CT scan of the neck.
Results: In both cases AD was diagnosed. After 10 days of corticosteroid and antibiotics therapy, a logopedic rehabilitation was performed for 3 days a week. After 3 months of therapy a phoniatric evaluation showed a considerable voice improvement.
Conclusions: AD due to external traumas can be treated with logopedic therapy avoiding surgery.

Title: Facial Paralysis in Petrous Bone Trauma : How Do It

Authors Filippo Ricciardiello[1], Annalisa Pianese[1], Teresa Abate[1], Viviana Indolfi[1], Immacolata Ferranti[1], Flavia Oliva[2], Alberto Napolitano[2]
Institution: [1]ENT UOC, University "Federico II" Naples, Italy
[2] ENT UOC, Cardarelli Hospital, Napoli, Italy

Introduction: The facial nerve is a mixed cranial motory, sensorial and parasympatic acting nerve, formed by the exactly facial and the Wrisberg's nerve. It has 3 tracts: intracranial , intratemporal and extracranial. Petrous bone fractures (PBF) are the main causes of inthracranial facial nerve's paralisys .
Hypothesis/ Problems and Aim: The PBF management is multidisciplinary. It is necessary a diagnostic and therapeutic flow-chart for the facial paralysis treatment.
Material and Methods: This study involved 96 patients hospedalised at Cardarelli for PBF (16 dead). The whole sample underwent to ORL examination, audio-impedenzometric and vestibular evaluations and petrous bone HRCT.
Results 64 PBF were extralabirinthic: 2 of these (3.1%) with late onset facial paralysis (24 h - 16 days);
16 PBF were translabirinthic: 12 cases (75%)with a facial paralysis
9 (75%) early onset (< 24 h)
3 (25%) late onset .
All the late onset facial paralysis (35,7%) were spontaneously resolved ; 4 patients (28,6%) had a partial resolution after 4 months and 6 patients (42,9%) required a surgical approach.

Discussion: The facial paralysis was observed in 17,5% of patients with PBF , at early onset in 64,3% and in 35,7% at late onset; this is relevant for the prognosis : the early ones have an adverse prognosis because of possible nerve section.

Conclusions: Late onset facial paralysis often undergo to spontaneous resolution after medical treatment, while early onset ones require a prompt surgical approach of decompression for the adverse prognosis.

Title: Splenic trauma management

Author: Simona Ruggiero, MD*

Suitability of adult patients with blunt splenic injury for non-operative management may be predicted at initial presentation, based on hemodynamic status and associated injuries. The quantity of hemoperitoneum and magnitude of splenic injury are predictive factors for failure of conservative treatment. Early definition of these factors may help identify those patients likely to be successfully treated without laparotomy.
Appropriate patient selection is the most important element of non-operative management. Patients with splenic injuries who are haemodynamically stable can be managed non-operatively with acceptable outcome. However, in the presence of concomitant trauma, there is an increasing trend towards operative management.

Title: Penetrating Injuries of the Chest: A Case Report

Author: P. Arganese
Institution: U.O.C. D.E.A. Chirurgia D'Urgenza e Trauma Center A.O.R.N. "A.Cardarelli",Napoli, Italia

Introduction: Thoracic injuries are common among civilian trauma and have a high associated mortality. The use of body armor and exposure to different mechanisms of injury in combat setting could lead to different injury patterns and incidences from those found in peacetime.
The Aim of the study is the evaluation of the corrected diagnosis and treatment of a penetrating injury of the chest.
Results and Discussion: Chest injuries are the cause of death in 25% of trauma fatalities, and a major contributing factor in an additional 50%.The penetrating trauma are among the most difficult to manage emergencies in the prehospital setting, however, the key principle at the basis of the proper management of these cases is not to remove for any reason the blunt object that caused the injury. The explanation of this approach is that the object in question may have a damaged vessel important, and that thanks to the jar object permanence is temporarily buffered. If the object is removed, it could induce a massive hemorrhage, since the temporary buffer would be lacking. Any object that has penetrated a body, it should never be removed in the prehospital setting it in the emergency room, in fact only in the operating room this maneuver can be carried out in a controlled manner, ensuring an immediate tamponade any bleeding. It's very important proceed, if the clinical condition of the patient allows, to practice CT that was found to be more sensitive than radiography and represents the most sensitive method to examine the seriousness of the underlying damage of the thoracic organs and it has proven useful to exclude the more serious complications "Deadly Dozen" in penetrating injuries of the chest, above all a minimum pneumothorax and pneumomediastinum cause of "preventivable death", that should be recognized already during the primary assessment according to ATLS.
Conclusions A percentage of injuries, if hemodynamically stable, ranging from 50% to 80% can be treated with a simple pleural drainage. Instead thoracotomy is indicated if patients are

hemodynamically unstable, massive hemothorax (1500 ml after chest drain insertion, or> 200 ml / h in 4 h), cardiac tamponade, destruction of the rib cage, evidence of esophageal , tracheobronchial, and great vessels injuries. Diagnostic thoracotomy is also indicated in cases of suspected cardiac injury in relation to the site of injury, for example between the nipples or in a suspected diaphragmatic injury. The suggested operative approach are left thoracic wound: left anterolateral thoracotomy at the lower edge of the male nipple; right thoracic wound: right anterolateral thoracotomy, extend to the left if necessary; supraclavicular wound: thoracotomy above the male nipple or above the female breast in 3rd or 4th intercostals space. We report a case of a penetrating injury of the chest with white weapon of a woman.

Title: Damage Control Surgery

Authors: M. Rutigliano, S. Reggio

Damage control surgery (DCS) is established as a life-saving procedure in severely injured patients. In addition to the trauma, hemorrhage and tissue hypoperfusion, a secondary systemic injury, by inflammatory mediator release, contributes to acidosis, coagulopathy, and hypothermia and leads to multi system organ failure. It is necessary to identify patients unable to tolerate a traditional approach due to the present or impending state of shock. Use of an abbreviated laparotomy is focused only on control of bleeding and contamination to limit surgical insult and allow for aggressive resuscitation in an intensive care unit (ICU) to regain physiological reserves. Only after correction of acidosis, hypothermia and shock are definitive repairs attempted. Closure of the abdominal wound has developed thanks to a better understanding of the importance of intra-abdominal hypertension (IAH) and abdominal compartment syndrome (ACS). A good knowledge of DCS has led to a significant increase in survival of severely injured patients.

Title: International disaster medicine association survey results regarding participants preferences on educational and training courses

Authors: Col Dr Rostislav Kostadinov, MD, PhD, Dr Giuseppe Noschese, MD; BG Dr Renzo Mattei, MD
Institution: IDMA

Introduction: International Disaster Medicine Association (IDMA) is a non profit international organization with main objective to provide forum for discussions, education and training on various disaster medical support issues in order to ameliorate disaster medical preparedness of population as a whole and of specific groups of society.
From March to August 2013 IDMA performed survey regarding the individual perception about readiness and preparedness for survival and assistance to the medical support in case of disasters. The set goal of this survey was to evaluate the status of community preparedness and the need of specific focused courses on disaster medical support.
The aim of this publication is to present the survey results regarding the courses participants of the survey would like to attend in order to enhance their knowledge and skills to react in case of disasters. By the means of the descriptive **method** the questionnaire and obtained results are presented. Comparative method and deductive analysis were applied in order to analyze the participants' expectations from the disaster medicine educational and training activities.
As a conclusion a list of desirable by the survey participants courses is presented.
Key words: International Disaster Medicine Association; Disaster Medical Preparedness, Disaster Medicine Courses, Disaster Medicine Education and Training

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Title: The Military Corps of the Sovereign Military Order of Malta: activities, roles and interaction with the Italian Army.

Authors: Dr V. D. Bianchi, MD, Dr G. Saviano, MD

The Medical Rapid Deployment Unit is an entity designed to create an effective and operational response team to be deployed, upon request, by the Italian Army, predominantly in case of natural disasters.
As Unit Commander, position that I am honored to fill, in accordance with the directions received by my chain of command, I intended to design an organizational structure based on a team of professionals, from those available within the 3rd Division itself, fully capable to deal with disaster on our home soil.
In addition, I have introduced a " veterinary cell " that could face a series of problems that are heavily conditioning a disaster and calamity theater, such as but not only the cleaning-up of animal carcasses, the rodent control, the water decontamination and checks on the potable water, health check on field kitchens, check on the food supply chain and storage.
A specific psychologist care and support has been set for managing all illness related to shock and stress after disasters.

Title: Infectious diseases in disaster medical education – necessity and significance

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Introduction: Despite the fact that one of the most frequent consequences of disasters is the increase in infectious diseases morbidity, the issue of infectious disease prevention and monitoring is still one of the less trained topics during disaster medical education. In great majority of the courses the infectious diseases management is part of the Biological Area of Damage discussions with main attention on how to coupe with already existing epidemic outbreak. In the interviews with students already completed disaster medical training or course, regarding their knowledge about the biological damaging factor almost all are discussing only the isolation and sanitary control measures to be implemented in case of biological area of damage. Very few are considering the secondary developed biological area of damage.
The aim of this study is to present the significance of the infectious diseases as a consequence in case of disasters and the necessity of implementing preventive measures against epidemic outbreaks in the very early stages of the disaster medical management and support. By the means of descriptive and comparative **methods** the available data about some of the most frequently recorded risk factors for development of infectious disease consequences in the disaster affected areas are analyzed. Deductive analysis was applied in order to depict the main tutorial requirements for achieving better preparedness for dealing with the infectious diseases challenges in the disaster medical management.
As a conclusion the Authors highlighted the significance of infectious diseases prevention training within disaster medicine courses.
Key words: Infectious Diseases, Disaster Medical Management and Support, Disaster Medicine Education and Training, Preventive Measures, Biological Area of Damage

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Title: Electronic Health Records: from the field to role/echelon 4

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Introduction: Military personnel engaged in international operations frequently need of medical and surgical treatments that must be documented.
The frequent use of paperwork presents obvious limitations that affect the security of the support, the readability of data, the exchangeability and the difficulty of centralization.
Another fundamental problem is the use of different languages and the incapacity to have simultaneous translations in a multinational context where it is not possible to ask all the operators involved the use of a common language.
An electronic medical record (EMR) is a digital version of a paper chart that contains all of a patient's medical history from one practice.
Aim: This report should analyze the technical characteristics of the various available devices, the machine languages, data formats that can be exchanged between the same applications developed for different programming languages and describes the principles of information security.
Discussion: The information stored in EMRs is not easily shared with providers outside of a practice and a patient's record might even have to be printed out and delivered to other members of the care team.
An EMR contains the standard medical and clinical data gathered in one provider's office.
Electronic health records (EHRs) are designed to contain and share information from all providers involved in a patient's care.
EHR data can be created, managed, and consulted by authorized providers and staff from across than one health care organization.
The simple digital data, in the form of EMR, does not guarantee that these are made immediately available to other operators while the EHR system makes this more feasible.
In recent years there has been a growing use of devices such as mobile phones, tablets, and personal computers, economic and equipped with the technology that allows the acquisition of data, images and clinical parameters, and their transmission between

them or to a server.
These devices could be utilized widely for the acquisition and processing of patient records from the time of first aid until his discharge from the hospital.
The design of applications in the form of health records, with specialized dedicated parts of increasing complexity, will secure an easy compilation and data entry, from the identification of the patient to the clinical and instrumental data.
These can be transferred from device to device or centralized in a local or central server to be made available to other operators.
Conclusion: The author has proposed a basic structure of the medical record, of its parts and how it should be structured to meet the needs of the different professionals involved.

Title: Training of Military Medical Personnel to Deployment in Operational Areas, the Experience of Italian Navy "Combat Medicine Course": Evolution Present and Future Prospects

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Introduction In the last decades, Italian Navy Medical Personnel have been continuously and increasingly deployed in "other than Naval" Joint and/or Multinational ground Operations, often in difficult, if not actually hostile, environmental conditions.
First realized in 1998, and arrived in 2013 at the XV edition, the Italian Navy Combat Medicine Course (CMC) has the aim to provide Military Medical Personnel in basic training or about to be deployed in operational areas, with a cultural and professional tool and a theoretical and practical knowledge on medical aspects (based on current principles of "Tactical Combat Casualty Care (TCCC)" and according with NATO/EU medical doctrine) and on military subjects (including Topography, CBNR Defense, communication with radio apparatus and use of small weapons for self-defense), in order to be prepared for deployment in any operational area.
Aim: General aspects and main characteristics of course are exposed and described in detail, as well as the constant process of updating of training contents, standing the original intents and structure of course, due to evolution of doctrine of tactical medicine, medical devices available on the field and to specific challenges met in some operational areas.
Discussion: In order to sustain the effectiveness of the course, field experiences of Military Medical Personnel deployed in Operation shortly after CMC completion, are also reported.
To keep high the attention of Italian Navy on its CMC, as well as the consideration of the course as a effective and unique tool for training Military Medical Personnel to deployment in Operational area, to promote the participation to the CMC of Personnel of other Italian Armed Forces, in an actual Joint perspective, and to share the experience with other Countries, are some of the main prospects of CMC for the future.

Title: Education and training of military staff and preparation of the Military CRI units in the period 2013-2014

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Adapting to rapid changes in the mode of conception, organization and execution of operations in recent years, has led to a process of revision of the procedures for training, reported to training activities (basic and advanced), and maintenance operations and readying for a specific mission and Command units operated by the Armed Forces.
This review process, made even more profound by the general economic and financial crisis that is affecting our country, has also led to the Military Corps of the Italian Red Cross to adjust the training of its personnel and education aspects, such as allow a close correlation to the reality with which the personnel and military CRI units are confronted daily with the Armed Forces and other components of the Red Cross, both in Italy and abroad.

In relation to the fact that the economic situation could also have consequences on the next financial biennium and considered the process of reorganization of the CRI in place runs the obligation to make every effort to focus training activities to those activities essential and unavoidable designed to better prepare the staff to fulfil its institutional duties, with particular reference to the functions of aid Forces armed and emergency activities.

In this context, are of particular value training courses aimed at raising acquire "in time and over time", the necessary powers to the staff, to be achieved by each class / type of staff and for its diverse functional areas of use.

The area in which you will operate the assets and units of the Military CRI divided into two main areas of application:

- National territory, for the purposes connected with the activities of support to the Armed Forces and Institutions, in the case of public calamities and emergencies;
- Foreign territory, for humanitarian diversified health in relation to the Theatre operating employment.
- Due to the lack of response defined by their level of ambition as well as from increasing demands of competition in terms of basic health training in favour of the Armed Forces, training activities and training should ensure:
- Preparation and operational readiness of the structure and units set up;
- Interoperability with the various Armed Forces;
- Maintenance of resources in terms of materials and available resources;
- Pre-deployment training, focused on the maximum realism and taking advantage experience
- Gained from the units returned by the different Operating Theatres;
- The widening of the instructors in the health field.

Title: Tactical Medicine: analysis of the new orientations for military and civilian training

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The cost of education of physicians and nurses, the moral and ethical desire not to participate in the fighting, the possibility of the loss of protection offered by the Geneva Convention, together with operational needs for absolutely new situations and scenarios, led to the birth, in Europe, Australia and United States, specialized professional paramedics widespread in all civil and military environments, operating in the field of public and private security , as well as in the military, called
"combat medics" and "tactical medics". These professionals, existing within NATO, are the paramedic staff of Anglo-American, Israeli and North European ambulances, with advanced skills.
Currently, all our Italian special forces were trained as "combat medics", but operate under binding legislation, due to the legal impossibility (prerogatives of doctors) to do an advanced life support, and penalizing even in the supply of drugs and equipment. Paradoxically, they can legally save a life abroad, but not in Italy!
The tactical medicine has prerogatives absolutely unique and special, so much so that a new specialization. It brings together elements in traumatology (emergency surgery and traumatology), resuscitation, preventive medicine, herbal medicine (for survival) and NBC defense. It is possible to note a differentiation of military medicine in the traditional type of operators, as regards aims and capacity. The traditional figures (doctors and nurses), play an essential and necessary role in medicine tactical training. Both in training that maintenance of skill and dexterity, it is necessary that the high-skilled health personnel (primarily resuscitation and surgery) is committed to provide operators an adequate legal cover and the necessary skills to operate in extremely hostile conditions. Courses being established by private agencies in Italy for civilian and military personnel provide specific training in the field of

rescue and tactical medicine. The courses are structured in such a way as to offer a professional specialization for those called upon to act in particular situations, and need to be able to lend their assistance work even during highly stressful situations, in remote areas, in extreme environmental conditions. The teaching methodology applied provides both lessons practical simulations extremely realistic. The teachers come from the international military medicine traditional, Special Forces or Military Corps of the Italian Red Cross.

The main issues covered are:
- Safety as a dynamic factor;
- Medical – tactical evaluation of a scenario;
- Preventive screening team;
- Weather – environmental factor;
- Individual movement;
- Movement of the team;
- Scenarios and completion of a medical – tactical evaluation;
- Evidence of movement in various scenarios;
- First aid under fire;
- Evaluation of the patient from a distance;
- Shipping methods under fire;
- Discipline noise / light;
- Methods of search and rescue;
- Triage in tactical situations;
- Trauma from gunshot: first aid;
- Assessment of patient in state of sensory deprivation;
- Assessment of patient in a state of sensory overload;
- Planning of long duration operations;
- Choice and sealing of medical / tactical equipment.

Courses of this type represent a real opportunity for civilian professional nurses, emergency workers, to hone their techniques and strategies of intervention in case of major disasters.

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