NATO Centre of Excellence for MILITARY MEDICINE

A key asset to NATO operations and transformation; committed to the Health of our Forces

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ONE OF THE MAIN challenges facing the military medical system as noted in NATO doctrine "Principles and Policies of Medical Support" (MC 326-3) is that the public expectation of high quality medical support is continually on the rise. In line with this doctrine, the aim of military medical support on operations is to support the commander’s intention through timely and effective health and medical services to the troops to achieve outcomes of medical care equating to best medical practice. These together have led the highest medical decision-making body in NATO, the Committee of the Chiefs of Military Medical Services (COMEDS), to develop a Medical Centre of Excellence to help coordinate efforts to advance Military Medicine across the Alli-
ance. As a result, in 2008, COMEDS created the NATO Centre of Excellence for Military Medicine (MILMED CoE) with Hungary as the Framework Nation. In October 2009, the North Atlantic Council accredited and activated the NATO MILMED CoE in Budapest. The Centre currently has a multinational staff consisting of members from nine Sponsoring Nations (Belgium, Czech Republic, France, Germany, Hungary, Italy, The Netherlands, Romania and The United Kingdom of Great Britain) with the United States in the process of joining. The position of Director rotates between Hungary and Germany, and currently it is Brigadier General Dr Stefan Kowitz, who will hand over the command to the current Deputy Director, Colonel Dr László Fazekas, in July.

Preventive Measures for the Health of Deployed Soldiers

One of the MILMED CoE missions is to counter the effects of diseases by monitoring the overall health of the fighting forces and by tracking the illness and symptoms that are experienced by the deployed personnel. Since its inception, the NATO MILMED CoE’s “Deployment Health Surveillance Capability (DHSC)” Branch in Munich has provided a mechanism that looks across nations to enable NATO military leaders to obtain timely information on current health risks. Not only does this capability improve NATO’s ability to respond to naturally occurring outbreaks, but it also acts as an early warning mechanism for the use of biological warfare agents against NATO nations and troops. For example, with the same system used to respond to the Ebola outbreak these last few years, MILMED CoE was able to monitor the health of our deployed forces in Africa. The experience gained during this epidemic has provided us with invaluable experience and knowledge and thereby increased our ability to respond to such outbreaks in the future.

In order to potentiate the knowledge and information gained during the Ebola outbreak, the DHSC Branch served as the hub of information and coordination for the multinational military and civilian stakeholders, but also for the medical directors and military command structures. Additionally, the Branch leveraged the previously developed network of public health centres across the Alliance and acted as the main point-of-contact for Ebola-related questions for NATO and EU Military Medical Services through the publishing of a weekly epidemiological situation update and also by hosting of a knowledge and experience exchange site on the COE’s webpage.

With the declaration of the end of the Ebola epidemic, MILMED CoE, in partnership with the U.S. Regional Health Command Europe (RHCE) and French Forces Epidemiology and Public Health Centre (CESPA), hosted an Ebola crisis lessons learned workshop in order to gather and share the recipes for success as well as to document the part of our collective preparedness that needs improvement prior to the next major biological outbreak, whether natural or intentional. Here, many lessons and thoughts were shared, but the main conclusion of the workshop was that NATO must be prepared to provide a coordinated and unified response to future communicable disease threats in a domestic or international theatre of operations. The dual-use approach to an efficient, effective and sustainable response and readiness for biological threat agents (also called bioagent or category B agents) makes NATO Medical and CBRN more prepared to respond to the consequences of deliberated B agents.

While the Ebola epidemic is a well-publicised disease outbreak, other infectious disease outbreaks have happened in the past and continue to happen. In order to prepare military medical staff, NATO MILMED CoE facilitates two courses: the Deployment Health Surveillance (DHS) Course (training units) at CESPA in France, and the Medical Management of
Infectious Diseases During Missions, in cooperation with the Bernhard Nocht Institute for Tropical Medicine and the Bundeswehr Military Hospital, in Hamburg. As an example, in April 2016, there was a minor Q-Fever outbreak within the KFOR mission, which reminded us that the biological risk is always there. NATO MILMED CoE supported NATO medical Chain of Command and deployed assets to face this Q-Fever outbreak, which was jeopardising NATO troops capacity to fulfil their missions.

Medical Exercises

The VIGOROUS WARRIOR (VW) exercise series started in Hungary 2011 and it is currently the only multinational medical exercise. It is organized every other year, hosted by different NATO nations’ medical services and facilitated and coordinated by the MILMED CoE who is experienced in executing the exercise in accordance with the Bi-Strategic Directive for Collective Training and Exercise (075-003). The second iteration of such a LIVEX was held in Germany 2013 with the aim of testing the concept of Smart Defence Initiative TIER 1.15: Pooling and Sharing, Multinational Medical Treatment Facility Role 2.

VW15 was part of the NATO Military Training and Exercise Programme and the only NATO medical exercise that took place in 2015. Nearly 350 military medical professionals from 14 nations joined together to participate in this individual training opportunity as well as national and multinational medical units. The main focus of VW15 was biodefence in order to better prepare for the next possible outbreak. In this exercise, the evaluation, analysis, and assessment of research processes were combined with the integration of doctrine in medical units and facilities. Different deployable mobile laboratories provided sophisticated capabilities and demonstrated the ability to provide detailed information to military and medical leadership. Another important aspect of the exercise was the testing of different Standardization Agreements (STANAGs). One example of this was the evaluation of the procedures to quickly deploy the Rapidly Deployable Outbreak Investigation Team (RDOIT) to investigate a disease outbreak in a biological environment.

Once again, the German Medical Service has taken on to host VW 17. The exercise scenario is currently being developed as a “walk phase” preparation for TRIDENT JUNCTURE 18, which will be an Article 5 scenario and will include the largest medical component for any TRIDENT exercise to date.

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How to Know that a Deploying Medical Unit and Command is Capable: Medical Evaluation

The MILMED CoE serves as the central hub for medical evaluations in order to ensure that NATO common standards are followed in military medical support to operations. In line with MC 326-3, medical evaluations support the overarching goal of achieving the best medical practice. To improve interoperability and support multinational solutions for medical support, MILMED CoE coordinates all medical evaluations conducted by certified medical evaluators. Additionally, MILMED CoE has been heavily engaged in the development of the STANAG 2560 “Evaluation of NATO Medical Treatment Facilities.”

Currently, a primary focus for medical evaluations is on certifying multinational medical units assigned to NATO Response Force (NRF) and Very High Readiness Joint Task Force (VJTF). Additionally, national and/or multinational medical units assigned to the
Operational Capabilities Concept of the Partnership Programme are also a focus, ensuring that medical units from NATO Partner Nations are able to meet the same standards as NATO Member Nations.

Beside the actual certification of medical units, MILMED CoE executes the "NATO Medical Evaluation (MEDEVAL) Course", which can be organized as a mobile training team course at different locations. Based on an official request from the Chief of Staff SHAPE, NATO MILMED CoE Training Branch organized and conducted the latest MEDEVAL of the USA 212th Combat Support Hospital (CSH) in April 2016. It is the first time ever that a medical facility has gone through the entire process of a NATO MEDEVAL as referenced in AMedP 1.6, Medical Evaluation Manual. This NATO MEDEVAL will lead to the 212th CSH becoming the first hospital to be certified by the Allied Commander of Operations, (SHAPE Belgium), based on the completion of the MEDEVAL process. With the evaluation and certification, the CSH can more easily integrate the medical personnel of NATO Allies or Partner Nations.

The overall aim of the MEDEVAL Course is to provide students with the appropriate skills to be able to evaluate medical modules under the auspices of their national military medical leadership. It is accredited by NATO, as well as by the Semmelweis University Budapest and the National Institute for Quality as well as Organizational Development in Healthcare and Medicines, thus granting Continuing Medical Education (CME) credit points for physicians and nurses. After the successful completion of the MEDEVAL Course, the students can refresh their knowledge on a regular basis at the Advanced Distributed Learning Portal of NATO MILMED CoE. Within this e-learning opportunity, two courses are available: NATO Medical Treatment Facility Evaluation Preparation and NATO Medical Evaluator Refresher Course.

**Improvement of Medical Lessons Learned Process**

During the MILMED CoE’s ISAF Medical Lessons Learned (LL) Workshop held at the end of 2014, the medical LL process was noted to have critical shortfalls, including a lack of input, problems with assigning topics for action and nationally stove-piped processes. Coincidentally to this workshop, the Armed Forces Declaration, produced at the Wales Summit of the NATO Heads of State, directed NATO to analyse how to enhance the sharing of best practices and LL on medical support to armed forces personnel. The MILMED CoE produced a recommendation that was presented to COMEDS and was used as that body’s report to the Military Committee.

In the final report of COMEDS, as follow up to the Armed Forces Declaration to the Military Committee, it is stated that “the Centre of Excellence for Military Medicine [MILMED CoE] plays the pivotal role in catalysing, recording and disseminating the learning of lessons and sharing of best practices.” Since then the LL Branch of MILMED CoE has been developing a comprehensive observation collection and tasking process that is based on and linked to the LL process presented in the Bi-SC Command Directive (Bi-SCD) 080-006.

Under the leadership of ACT Medical Advisor and MILMED CoE, a process has been developed to improve the collection, processing and tasking of medical observations, as well as to facilitate the sharing of information and knowledge generated by this process. The increasingly interconnected and interdependent relationship between military and non-military medical support is the driving force behind the development of this adjunct document. Key integrated characteristics and improvements of the process include: enhanced responsiveness; centralization with clear delineation of the authorities; easy and intuitive access; ability to provide cross-organizational partnering; connection to national and NATO LL processes; passive and active data collection; integration with civilian-medical expertise; creation of Subject Matter Expert (SME) networks; and the active support of all levels of NATO Medical Services and NATO Member Nations.

As a part of this programme, MILMED CoE developed a medical LL database for unclassified observations, best practices and lessons identified. All these activities are coordinated with the Joint Analysis Lessons Learned Centre (JALLC) for sharing of observations, documents and lessons. The LL portal of NATO MILMED CoE will be integrated into the NATO LL network. As a result of all these activities and the developed process, the number of observations and lessons identified has increased. Based on this, MILMED CoE will develop a medical LL field manual for the medical community.

**Workshop on Mental Health**

Across NATO Nations, military psychiatrists have generally been focused on the mental health of deployed soldiers. As a result of this focus, a workshop on mental health and mild traumatic brain injury was held in Ramstein, Germany, in February 2015, in partnership with the Europe Regional Medical Command. The outcome of this workshop was discussed at the last COMEDS Military Mental Health Panel and will be used for possible adaptation of doctrine and to inform ongoing concept development. With the intention of bringing together expertise and information shared during the workshop, MILMED CoE provides the “Military Psychosocial Incident Management Course”, which was developed in cooperation with the Centre for Mental Health, Military Hospital Queen Astrid, Belgium. The course is designed to provide the knowledge and skills for non-medical and medical leaders to effectively start up and/or to manage psychosocial care in the aftermath of minor or major casualty traumas and to enable participants to achieve psychosocial awareness in a military multinational environment.

**Future Medical Support with Prolonged Field Care**

MILMED CoE conducted a workshop in November 2015 with the aim of analysing the implications that hybrid warfare and future Article 5 missions have on NATO medical support. For all attendees the achievements of medical support in ISAF were clear: the survival rate of nearly 95 per cent when reaching a medical facility. For all attendees the achievements of medical support in ISAF were clear: the survival rate of nearly 95 per cent when reaching a medical facility. The probable environment of the next NATO military engagement includes decreased air superiority resulting in decreased freedom of movement, reduced Air Medical Evacuation (AIRMEDEVAC) capabilities, especially Forward AIRMEDEVAC, and an increased requirement for mobility on tactical and operational level. This is likely to reduce the ability to transport a battle casualty to a...
surgically capable medical facility significantly from an ISAF standards perspective. The result is that wounded troops will require more efficient temporizing treatment in the field. Moreover, the workshop attendees stressed that the standards should not change and that getting a casualty to a surgically capable unit as quickly as possible should be a priority—as such, a “Prolonged Field Care” will be a reality. The workshop outlined the issues and presented a list of topics for future consideration by NATO medical support services.

In order to address some of the issues identified at the workshop, MILMED CoE and the U.S. Regional Health Command Europe (RHCE) hosted a follow-on workshop on prehospital care. The aim of this workshop was to collect best practices concerning prehospital care and to begin to develop scientifically-based recommendations for improvements to battlefield casualty care. The output will be used for NATO science and organization work and for the Prehospital Care Improvement Initiative Task Force (PHCI-TF), which has been supported by COMEDS. One of the first results of the Prehospital Workshop is that positioning of blood products far forward of ROLE 2 MTFs is critical to optimizing survival on the battlefield. Therefore, other COMEDS workgroups and panels with their Subject Matter Experts will analyse how this challenge can be achieved.

**Extensive Network and Good Reputation**

The few examples show that NATO MILMED CoE is linked and connected to a strong and wide network of partners and stakeholders for medical support and especially for military medicine. The results of the leading role and the work of MILMED CoE have implications on the tactical, operational and strategic level for NATO and NATO Partners alike. MILMED CoE supports and assists the transformation of medical support for the Alliance and is involved in the three main NATO projects: NATO Defence Planning Process, Smart Defence Projects, Connected Forces Initiative.

In acknowledgement of its important role and mission, MILMED CoE was awarded the Dominique-Jean Larrey Award in 2015. This award is the highest honour that COMEDS can bestow and is named after the French Surgeon General of the Napoleonic imperial forces, who invented, among other things, the field ambulance, which helped to significantly improve medical care in the field. This award is given in recognition of a significant and lasting contribution to NATO multinationality and interoperability, and to improvements in the provision of health care in NATO missions within the areas of military medical support or military healthcare development. Receiving this outstanding award is a prestigious honour and distinction, and it shows, as a most important feedback, that the work and efforts of MILMED CoE are recognized by COMEDS and the NATO medical community.

**MILMED CoE in a Nutshell**

— Currently, Belgium, Czech Republic, France, Germany, Hungary, Italy, The Netherlands, Romania and The United Kingdom of Great Britain are the Sponsoring Nations. The United States, as a Voluntary Contributing Nation (VNC), assigned three experts to join the Centre, — MILMED CoE brings together highly experienced medical professionals,

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Above: Handover of the Larrey Award; Lieutenant General Dr. Gérard Nédellec, COMEDS Chairman (left) and Brigadier General Dr. Stefan Kowitz, MILMED CoE Director, 18 November 2015, Brussels. PHOTO: MELVIN ORR, NATO

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