



Ministry
of Defence



Allied Joint Publication-4.10

Allied Joint Doctrine for Medical Support



NATO STANDARD

AJP-4.10

ALLIED JOINT DOCTRINE FOR MEDICAL SUPPORT

Edition C Version 1

with UK national elements

SEPTEMBER 2019



NORTH ATLANTIC TREATY ORGANIZATION
ALLIED JOINT PUBLICATION

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11 September 2019

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Allied Joint Publication-4.10

Allied Joint Doctrine for Medical Support

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Adopting NATO doctrine



The UK places NATO at the heart of its defence. In doing so the UK should strive to achieve maximum coherence and interoperability with, and between, our closest allies and partners. Where possible the UK will adopt NATO doctrine (Allied joint publications) rather than producing national doctrine (joint doctrine publications). Where it cannot, the UK will ensure it remains compatible. As a result the UK doctrine architecture comprises:

- NATO Allied joint publications distributed in the UK for use on coalition operations as appropriate;
- NATO Allied joint publications promulgated as UK national joint doctrine; and
- UK joint doctrine publications promulgated as UK national joint doctrine.

Where an Allied joint publication is promulgated as UK national doctrine, the cover will carry both the MOD and NATO emblems. These publications may contain UK national element additions, which explain a particular UK approach, clarify a UK definition, or aid understanding. These additions will be clearly identified as boxes with the UK flag icon. All photos and captions are also UK national additions. The original NATO text will not be modified. The UK additions take precedence where terms and processes differ.

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Record of specific reservations

[nation]	[detail of reservation]
DEU	<p>Section 2, 1.50, Fig. 1-1, No 2 combined with MC 325/4 II No 17 DEU preserves the right not normally to deny emergency treatment in the case of acute life threatening conditions of third parties as capacities permit, although the commander has the right to limit military medical support. (IAW MC 0326/4 II No 15 “The Universal Provision of Acute Emergency Care” - “Although the Operational Commander has the authority to limit the availability of military medical support to third parties, acute emergency treatment of life threatening conditions must not normally be denied within the capability/capacity of the medical resources deployed.”)</p> <p>Section 2, No 1.51 combined with Footnote 13 DEU preserves the right that medical personnel be equipped with personal weapons, only, to repel attacks violating international law. For the Bundeswehr, these are: pistol, rifle, and submachine gun.</p> <p>Bundeswehr medical personnel may not use weapons requiring more than one person for transport and operation. (e.g. heavy machine guns >12.7 mm) The same applies to the use of weapons that can be transported and handled by one person if these are typically used for active combat. (e.g. hand grenades, grenade launcher, anti-tank weapons) (IAW Special Publication C1-800/0-4016 “Waffeneinsatz durch den Sanitätsdienst der Bundeswehr” [Use of weapons by the Bundeswehr Medical Service], Section 210.</p> <p>Section 2, No 1.52 combined with Footnote 14 and 15</p> <p>In accordance with national regulations and legislation, DEU preserves the right to camouflage or remove distinctive emblems on the order of commanders at brigade level or above, or officers in an equivalent position, after consulting the Senior Medical Officer (Medical Director) and the Legal Adviser. (IAW General Publication A-2141/1 “Humanitäres Völkerrecht in bewaffneten Konflikten” [Humanitarian Law in Armed Conflicts], Section 6.5.2)</p>

[nation]	[detail of reservation]
DEU (con't)	<p>Annex D - 3. bullet</p> <p>From the DEU perspective, the description of Role 2F in maritime environment in Annex D is not precise enough.</p> <p>The Role 2 Level 3 only then is the maritime equivalent to R2F/ R2B, if the requirements detailed in Chapter 2 Section 4 B 2.44 are met.</p>
GBR	<p>Reservation 1: The UK uses the term ‘in-theatre surgery’ to describe surgical procedures, beyond damage control surgery, conducted within the operational theatre.</p> <p>Reservation 2: The UK uses the term ‘prolonged care’ to describe the application of additional techniques to sustain the casualty if any component of the 10.1.2(+2) medical planning guideline is likely to be exceeded. Delivery of prolonged care requires techniques, skills and capabilities to hold a patient for a protracted period of time. Prolonged care includes the sub-categories: prolonged pre-hospital care (covering those techniques suitable for use in the pre-hospital emergency care clinical phase) and prolonged hospital care (covering those techniques suitable for use in the deployed hospital care clinical phase). The UK acknowledges the inclusion of ‘prolonged casualty care’ and ‘prolonged field care’ in AJP-4.10(C) but do not consider that their definition is developed enough to replace current national terminology.</p> <p>Reservation 3: The UK uses the term ‘pre-hospital care’ to describe all aspects of health service support forward of deployed hospital care. This includes: core functions of primary health care; pre-hospital emergency care and forward medical evacuation; and force health protection.</p> <p>Reservation 4: The UK views damage control surgery as a component of damage control resuscitation, not a separate function to resuscitation as described in AJP 4-10(C).</p> <p>Reservation 5: The UK retains the right, if necessary, to determine medical rules of eligibility and the theatre patient return policy within its national capabilities. The UK also retains the right to propose the use of CBRN medical counter-measures, including the administration of prophylactics.</p> <p>Reservation 6: The UK does not use the five levels of maritime medical care articulated in Annex D.</p>

[nation]	[detail of reservation]
NLD	<p>1) Paragraph 1.50: NLD cannot meet standards of practice and care on operations equal to that delivered at the NLD home base. The Netherlands will however always deliver the appropriate quality of military operational trauma care for the personnel at risk.</p> <p>(For example: NLD will not be able to prepare cardio-vascular care in operations, so civil standards have a different scope than the military medical standards as mentioned.)</p> <p>2) Paragraph 3.20: NLD will read the 10-1-2 (+2) as; we will plan to provide DCS within one hour but not later than two hours after injury or insult.</p> <p>3) Figure 3.2, 10 mins: All NLD military personnel is able to provide self and buddy care. Selected (NLD) military personnel (CGN) is able to provide enhanced field care.</p>
NOR	<p>AJP-4.10(C), 2.50 (4): "Real time/near real time patient tracking through the entire continuum of care". Norway find this to be a too high ambition regarding a MJO+ and/or article 5 operations. This due to the rather high number of patients to be expected in these type of scenarios. This with reference to SABERS. With this in mind Norway will have reservations to patient tracking as mentioned in this section.</p>
USA	<p>Reservation 1. The United States recommends removal of the text in para 2.13 for the term cyberspace warfare as offensive cyberspace attacks in of themselves do not constitute an act of war, which is determined by senior authorities.</p> <p>Reservation 2. The United States recommends using the term 'international law' in place of 'humanitarian law' in paragraph 1.52 as the term is misused per national understanding and compliance with the Geneva Conventions.</p> <p>Reservation 3. The United States recommends removal of terms and definition in the lexicon that are not NATO Agreed, quoted verbatim from NATOTerm, correctly cited IAW AAP-47 Allied Joint Doctrine Development, correctly introduced or revised IAW AAP-77, NATO Terminology Manual, nor have terminology tracking forms submitted.</p>

[nation]	[detail of reservation]
USA (con't)	<p>Reservation 4. The United States recommends harmonizing existing text in paragraph 1.62.c. “All military effort should be limited in time and scope, with a clearly defined exit strategy for handover to civilian actors” correctly with AJP-1 and AJP-3.</p> <p>Reservation 5. The United States recommends addressing the variance that the Role 2 definition used by NATO forces includes terms and descriptions not used by the United States such as the Role 2 MTF provides greater resuscitative capability than is available at Role 1. It does not subscribe to the interpretation that a surgical capability is mandatory at this Role of medical care.</p> <p>Reservation 6. The United States recommends addressing the variance that the First Aid & Combat Casualty Care mnemonic T.H.R.E.A.T is not taught or used by the United States.</p> <p>Reservation 7. The United States recommends addressing the variance that NATO’s five triage categories are different in color coding than the four triage categories used by the United States which are imbedded in its current doctrine, training, and practices.</p>
<p>Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.</p>	

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Related documents

“The Geneva Conventions of 1949”,	
PO(2010) 0169	The Alliance’s Strategic Concept
PO(2016) 0407 (INV)	NATO Policy For The Protection Of Civilians
PO(2018) 0227-AS1	Military Committee Concept for the Protection of Civilians
MC 133/4	NATO’S OPERATIONS PLANNING
MC 0319/3	NATO Principles and Policies For Logistics
MC 0326/4	NATO Principles and Policies of Medical Support
MC 0327/2	NATO Military Policy for Non-Article V Crisis Response Operations
MC 0335	Establishment of the Committee of the Chiefs of Military Medical Services in NATO (COMEDS)
MC20/11	Military Committee Policy for Military Operational Standardization
MC 0343/1	NATO Military Assistance to International Disaster Relief Operations (IDRO)
MC 0411/2	NATO Military Policy on Civil-Military Cooperation (CIMIC) and Civil Military Interaction
MC 0472	NATO Military Concept for Defence Against Terrorism
MC 0551	Medical Support Concept for NATO Response Force (NRF)
MC 0572	NATO Military Medical Vision and Objectives 2007-2016
AAP- 6 ED 2017	NATO Glossary of Terms and Definitions (English and French)
AAP-15 ED 2016	NATO Glossary of Abbreviations Used In NATO Documents and Publications
AJP-01	Allied Joint Doctrine
AJP-2	Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security
AJP-3	Allied Joint Doctrine for the Conduct of Operations
AJP-4	Allied Joint Doctrine for Logistics
AJP-5	Allied Joint Doctrine for the Planning Of Operations
AJP-6	Allied Joint Doctrine for Communication and Information Systems
AJP-3.5	Allied Joint Doctrine for Special Operations
AJP-3.8	Allied Joint Doctrine for Chemical, Biological, Radiological and Nuclear Defence

AJP-3.13	Allied Joint Doctrine for the Deployment of Forces
AJP-3.14	Allied Joint Doctrine for Force Protection
AJP-3.19	Allied Joint Doctrine for Civil-Military Cooperation
AJP-4.4	Allied Joint Movement and Transportation Doctrine
AJP-4.5	Allied Joint Doctrine for Host Nation Support
AJP-4.6	Allied Joint Doctrine for the Joint Logistic Support Group
AJP-4.11	Allied Joint Doctrine for NATO Asset Visibility
AJMEDP-1	Allied Joint Medical Planning Doctrine
AJMEDP-2	Allied Joint Doctrine for Medical Evacuation
AJMEDP-3	Allied Joint Doctrine for Medical Intelligence
AJMEDP-4	Allied Joint Medical Force Health Protection Doctrine
AJMEDP-5	Medical Communications and Information Systems (MEDCIS)
AJMEDP-6	Allied Joint Civil-Military Medical Interface Doctrine
AJMEDP-7	Allied Joint Medical Doctrine for Support to Chemical, Biological, Radiological and Nuclear (CBRN) Defensive Operations
AJMEDP-8	Allied Joint Medical Doctrine for Military Health Care (MHC)
AJMEDP-9 (STUDY)	Allied Joint Medical Doctrine For Multinational Health Service
AMEDP-1.1 (STUDY)	Minimum Requirements for Blood, Blood Donors and Associated Equipment
AMEDP-1.6	Allied Medical Doctrine for the Evaluation of Medical Treatment Facilities – Medical Evaluation Manual
AMEDP-1.7	Allied Medical Doctrine for the Evaluation of Medical Treatment Facilities – Capability Matrix
AMEDP-1.8	Allied Medical Doctrine For The Evaluation Of Medical Treatment Facilities – Skills Matrix
AMEDP-1.9	Minimum Requirements of Emergency Medical Supplies on Board Ships
AMEDP-1.10	Medical Aspects in the Management of a Major Incident/Mass Casualty Situation
AMEDP-1.12	Medical and Dental Supply Procedures
AMEDP-3.1	Military Forensic Dental Identification
AMEDP-4.1	Deployment Health Surveillance
AMEDP-4.3	Human Rabies Prophylaxis in Operational Settings
AMEDP-4.4	Dental Fitness Standards for Military Personnel and the NATO Dental Fitness Classification System
AMEDP-4.8	Pre- and Post-Deployment Health Assessments

AMEDP-5.1	Patient Data Exchange Format for Common Core Information
AMEDP-5.2 (DRAFT)	Standards for Data Interchange between Health Information Systems
AMEDP-7.1	The Medical Management Of CBRN Casualties
AMEDP-7.1-1	Considerations for CBRN Medical Planning and Delivery
AMEDP-7.2	CBRN First Aid Handbook
AMEDP-7.2-1	Standards Related Document CBRN First Aid Handbook
AMEDP-7.5	NATO Planning Guide for the Estimation of Chemical, Biological, Radiological and Nuclear (CBRN) Casualties
AMEDP-7.8	Recording of Operational Ionizing Radiation Exposure for Medical Purposes and Management of Dosimeters
AMEDP-8.1	Documentation Relative to Initial Medical Treatment and Evacuation
AMEDP-8.2	Basic Military Hospital (Clinical) Records
AMEDP-8.4	Animal Care and Welfare and Veterinary Support During All Phases of Military Deployments
AMEDP-8.5	Minimum Test Requirements for Laboratory Units of In Theatre Military Medical Treatment Facilities (Medical Treatment Facilities)
AMEDP-8.6	Forward Mental Healthcare
AMEDP-8.7	First-Aid Dressings, First Aid Kits and Emergency Medical Care Kits
AMEDP-8.8	Medical Warning Tag
AMEDP-8.9	Minimum Requirements for Medical Care of Women in Joint/Combined Operations
AMEDP-8.10 (STUDY)	A Psychological Guide for Leaders Across the Deployment Cycle (Study)
AMEDP-8.11 (STUDY)	Suicide Prevention
AMEDP-8.12	Requirements for Military Acute Trauma Care Training
AMEDP-8.13	The Extent of Dental and Maxillofacial Treatment at Roles 1-3 Medical Support
AMEDP-8.14	Prevention of Post Deployment Somatoform Complaints
AMEDP-8.15	Requirements for Training in Casualty Care and Basic Hygiene for All Military Personnel
AMEDP-9.1 (STUDY)	Modular Approach for Multinational Medical Treatment Facilities
AMEDP-9.2	Guidelines for a Multinational Medical Unit

AMEDP-9.3	Credentialing for NATO Healthcare Professionals Assigned To Role 2/3 Multinational Medical Units
AMEDP-23	National Military Strategies for Vaccination of NATO Forces
AAMEDP-1-1	Allied Air Medical Publication for Aeromedical Evacuation
AAMEDP-1.5 ED.6	Medical Employment of Air Transport in the Forward Area
AMOV-6	Allied Multi-Modal Transportation of Dangerous Goods Directive
ACO DIR 80-90	Access to Civil (Civil Emergency Planning) Expertise
ACO DIR 83-1 (ED 2)	Medical Support to Operations (September 2010)
ACO DIR 83-2	Allied Command Operations (ACO) Guidance for Military Medical Services Involvement with Humanitarian Assistance and Support To Governance, Reconstruction And Development (March 2010)
ACT DIR 75-2/T	Medical Joint Functional Area Training Guide
NSHQ DIRECTIVE 75-001	Medical Standards and Training Directive
NSHQ DIRECTIVE 300-001	SOF Medical Leaders Handbook

Joint Service Publication (JSP) 950, *Medical Policy*

Royal Navy Book of Reference (BRd) 4487, Volume 2-11, *Maritime Medical Doctrine*

British Army AC72132, *Health Service Support to Land Operations Handbook*

Air Publication (AP) 7003, *Royal Air Force Medical Services Core Doctrine*

The Joint Deployed Hospital Care System – Concept of Employment

Preface

- Context.** This edition of the Allied Joint Doctrine for Medical Support reflects the changes that have taken place in NATO since the last edition was published in May 2015, as well as actual developments in military medicine, lessons and experiences from recent NATO deployments and the role of medical and health service support in joint operations. Looking to the future, this edition also addresses the increased public expectations of high quality outcomes in the treatment of casualties and new trends for the development of a health service being sufficient, capable, prepared and interoperable to meet NATO's level of ambition within a comprehensive approach.
- Scope.** Doctrine provides fundamental principles and commonly agreed standards by which military forces guide their actions in support of objectives. The clear understanding and acceptance of doctrine by allied joint forces is a prerequisite for the successful conduct of operations. Allied Joint Publication (AJP) 4.10 builds on the key themes set out in AJP-01(D) Allied Joint Doctrine and translates the fundamental NATO principles and policies of medical support as given by the Military Committee Publication (MC) 326 into operational guidance. AJP 4.10 is one of the supporting joint publications of AJP-4, the Allied Joint Logistic Doctrine. Subordinate to AJP-4.10 are the Allied Joint Medical Publication (AJMedP), Allied Medical Publication (AMedP) and Allied Air Medical Publications (AAMedP) series, which are intended for an audience of medical staff officers and subject matter experts¹ and provide greater detail on the different aspects of joint medical support.
- Purpose.** This publication aims to provide the fundamental basics for planning and performing joint medical support on NATO operations. It explains joint medical support in the political, strategic and operational context and outlining medical support principles, guidelines and responsibilities (Chapter 1). It describes the organization of medical support in NATO, the relationships and links, the interface and interaction of the different medical support components with each other, within the military and with civil health authorities and organizations (Chapter 2). It outlines the medical support related tasks and functions (Chapter 3). It should facilitate a clear common understanding and flexible decision making. It should support teaching and multi-national interoperability on operations by providing agreed common standards and

.....
1 See Annex A Medical Doctrine Architecture.

terminology. It should encourage and enable close cooperation between Nations, even if some differences in national doctrines exist.

4. **Application.** NATO doctrine provides orientation and guidance based on NATO agreed standards and terminology. AJP 4.10 should be understood as a guideline and reference document for medical support which can be applied with considerable flexibility, if necessary. The primary target audience are NATO staff personnel at operational level headquarters or formations and units assigned to them and NATO medical service personnel. AJP 4.10 is not intended to replace national doctrine or to supersede any particular nation's approach to medical support. AJP 4.10 could also be applied, with adaptations agreed by the participating nations where necessary, for operations under other international mandates, or as part of a coalition of NATO and non-NATO nations, when such utilization would not be against NATO's interests.

5. **Amendment.** Doctrine evolves as its political and strategic foundation changes in the light of new technology, lessons identified and the insights of operational analysis. AJP-4.10 is subject to regular review and can be amended and reissued as required. Guided by the tasking authority of the Committee of the Chiefs of Military Medical Services in NATO (COMEDS), the Allied Command Transformation (ACT) Medical Branch will review the contents of AJP-4.10, The Allied Joint Operations Doctrine Working Group (AJOD WG) and the Military Committee Medical Standardization Working Group (MC MedStdWG) provide NSO oversight and the COMEDS Military Medical Structures, Operations and Procedures Working Group (MMSOP WG) provides medical specialization oversight in order to reflect changes in NATO policy or to carry out urgent amendment requirements. Any recommended changes or development proposals are always welcome and should be directed to the Medical Branch of ACT.

UK 1. This hybrid publication includes those elements of UK joint medical doctrine that differ from NATO as national elements to form the capstone medical doctrine applicable to all Permanent Joint Headquarters, single-Service commands and Defence Medical Services operational and tactical medical doctrine. This publication contains the fundamental principles by which medical capability should be delivered, within the wider strategic context and on operations.



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Chapter 1

This chapter describes the fundamentals of medical support which encompass the strategic and the operational context. It details the NATO medical support principles, policies and standards and the health service support related responsibilities at the different levels of command in NATO.

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Section 2 – Principles, policies and standards of medical support	1-28
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“

The **aim** of operational medical support is to ensure that **every** casualty gets the **right** treatment in a **timely** manner and at an **appropriate** facility.

”

MC 0326/4, *NATO Principles and Policies of Medical Support*, August 2018

Chapter 1

Fundamentals of medical support

Section 1 – Context

A. Strategic context

1.1 The global security environment is more and more characterized by complexity, uncertainty, instability and pervasive information. Recent global economic developments have resulted in a complex and vulnerable balance of dependencies. Environmental and resource constraints, including health risks, climate change, urbanization, water scarcity and increasing energy needs will further shape the future security environment.

1.2 NATO will usually be one actor among others, and while different parties' respective goals may be broadly aligned, each is nevertheless shaped by different perspectives, priorities, motivations, mandates, timeframes, cultures and processes. NATO remains focused on collective defence (as set out in article 5 of the North Atlantic Treaty), crisis management, and cooperative security. NATO's security strategy aims to enhance readiness, responsiveness, resilience and sustainability, to reinforce the transatlantic bond and strengthen cooperation and interoperability among its members and with its partners.

1.3 NATO forces must maintain the ability to conduct large-scale conventional operations and high intensity combat, to operate worldwide over extended lines of communication and extended periods in challenging climatic, geographic, socio-cultural, economic and political conditions as well as to engage in hybrid, asymmetric and unconventional warfare. This requires a high level of readiness, agility and flexibility, but also interoperability, mutuality, resilience and sustainability. Understanding of and interaction with civil authorities and organizations continues to be relevant in the security environment of today and the near future and is essential in building and enhancing member nations' resilience in collective defence and cooperative security.

B. Operational context

1.4 On operations, NATO forces might be deployed into challenging operational conditions. Those include:

- high intensity combat combining conventional with hybrid warfare;
- remote and austere locations with a high prevalence and incidence of health threats and risks;
- long distances, operating along extended and limited lines of communications;
- little or no host nation support available;
- dense urban areas with a large civilian population where a clear distinction between combatants and the civil population is almost impossible.

1.5 A range of potential hazards may affect the health of the force or the population at risk and include:

- **Chemical** threats, such as chemical warfare agents, toxic industrial chemicals, riot control agents and chemical hazards derived from pharmaceuticals;
- **Biological** threats, such as live organisms, toxins and biological hazards deliberately employed to harm the population at risk (PAR);
- **Radiological** threats, such as material or events that release ionizing (alpha, beta, gamma radiation and neutrons) and non-ionizing radiation (including directed energy);
- **Nuclear** threats, such as weapons or events that result in nuclear fission/fusion reactions;
- **Explosive** (and ballistic) threats cover all consequences of explosive activity on human bodies including gunshot wounds, indirect fire, improvised explosive devices, shells and bombs;

- **Environmental** threats, such as environmental conditions likely to cause harm such as heat, cold, and altitude;
- **Endemic** threats, such as infectious diseases and Biological Agents of Operational Significance that are not deliberately released, but pose a hazard to the health of the PAR.
- **Traumatic** threats cover the trauma element of non-battle injuries to complement the explosive (and ballistic) threats causing battle-injuries.

C. Medical support, health support and health service support

1.6 Health and medical support are key force enablers. They comprise a set of actions which contribute to the preparation and preservation of human potential by full and coherent care.²

1.7 Medical support incorporates the full range of medical services.³ Medical support contributes to force protection, readiness and sustainability through planning and provision of preventive, acute, and rehabilitative healthcare for military personnel from enlistment to retirement. This includes prevention of disease, health promotion, rapid evacuation, and treatment of the sick, wounded, or injured, and the recovery and return to duty of as many individuals as possible.

1.8 Health service support encompasses all services provided by dedicated medical service personnel. It aims to directly or indirectly contribute to the health and well-being of patients or a population.⁴

1.9 Medical and health services comprehend all professional, technical, and related functions performed by medical professionals in a military organization. Those include general and special medical treatment, dental care, mental health care, nursing care, veterinary service, medical laboratory service, patient evacuation, preventive medicine, dietetics and medical logistics.⁵

.....
2 NATO agreed health and medical support definition in lexicon

3 NATO agreed medical support definition in lexicon

4 NATO agreed health service support definition in lexicon

5 NATO agreed medical and health services definition in lexicon

1.10 Medical and health services aim to preserve and restore the health and fighting strength of the force when exposed to the hazards of the operational environment and to provide medical care to patients suffering from the consequences of exposure to one or more of these threats (or experiencing health issues resulting from intrinsic factors). In this context, health is to be considered not merely as the absence of injury, disease or infirmity, but as a state of fitness and well-being, enabling the forces deployed to carry out duties unimpeded by physical or mental problems. On request and on occasion medical and health services may contribute to civilian health sector development led by non-NATO agencies and to assist indigenous forces in the development of military medical capabilities.

The UK health care cycle



UK 1.1. The UK health care cycle describes the 'patient-centred' provision of health service support to the Defence population at risk throughout their career. Firm base medical activity is designed to optimise an individual's health and generate fit-for-task force elements for Defence. The chain of command and the Defence Medical Services (DMS) collectively contribute to applying force health protection measures, such as preventive medicine, health promotion and medical intelligence to facilitate this. The chain of command (supported by the DMS) is also responsible for training all military personnel in essential first aid, and a proportion in extended first aid.

UK 1.2. On operations, if health protection fails, personnel may become sick or injured; this may be as a result of trauma, acute conditions or illness. Initial response is likely to be provided by non-vocational health care providers, prior to the DMS assuming clinical responsibility. Resuscitation commences in the pre-hospital environment and continues throughout the patient's journey to deployed hospital care (DHC) and onwards. Patients are supported by the ten instruments of military medical care (defined under UK paragraph 2.1) and managed within the Operational Patient Care Pathway (OPCP). If necessary, they are medically evacuated from the theatre of operations.

UK 1.3. Once repatriated to the UK, patients are accepted into the National Health Service (NHS) under the reception arrangements for military patients (RAMP) and are usually admitted to the University Hospitals Birmingham Foundation Trust (UHBFT). The Royal Centre for Defence Medicine (RCDM) supports UHBFT by providing DMS command and control, health care

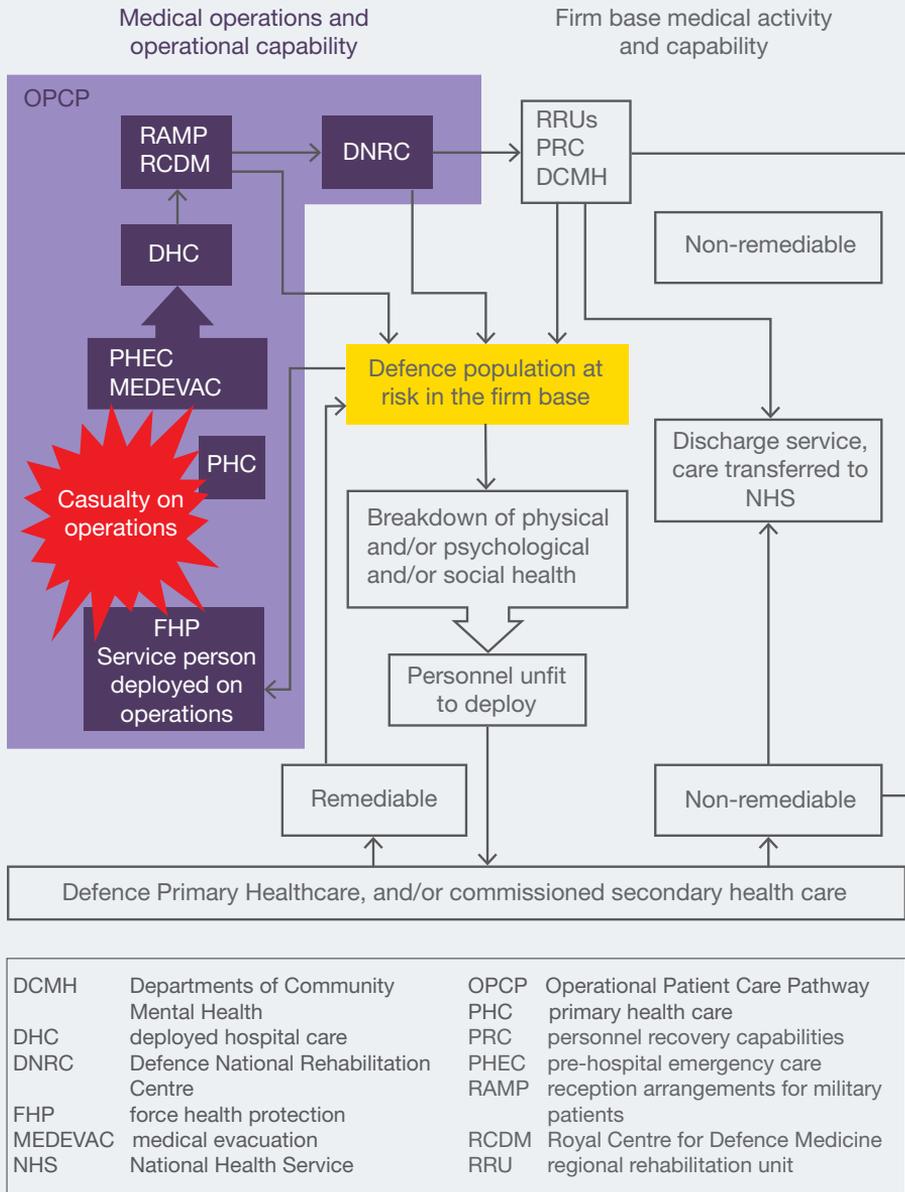
providers and specialist military expertise to facilitate the OPCP. RCDM is an operational unit in the firm base responding to the needs of deployed formations.

UK 1.4. Those who require specialist rehabilitation are transferred to the Defence and National Rehabilitation Centre (DNRC). DNRC contributes to the force generation process by restoring injured military personnel to functional employment. This function provides a significant contribution to the physical and moral components of fighting power as described in Joint Doctrine Publication 0-01, *UK Defence Doctrine*. DNRC should also be viewed as a Role 4 operational unit within the firm base with a responsibility to respond to operational requirements. Supporting this process from within DNRC are clinical, social, mental, spiritual, administrative and general welfare services.

UK 1.5. Those patients requiring less specialised rehabilitation will be managed at regional rehabilitation units (RRU) within Defence Primary Healthcare (DPHC). These rehabilitation facilities support the flexible and responsive management of those patients that are either in the later stages of recovery or less seriously injured, allowing them to be rehabilitated in an environment appropriate to their needs; occupational health services are integral to returning personnel to health. Mental health support is provided by Departments of Community Mental Health (DCMH), also within DPHC.

UK 1.6. The DMS and the chain of command support the patient in their rehabilitation and return to physical, psychological and social function. After completing treatment Service personnel will either return to the Defence population at risk, or, if their condition is incompatible with continued service, be medically discharged. Administration is undertaken by the patient's own unit, through personnel recovery units or centres that form the Defence recovery capability. The UK health care cycle is shown in UK Figure 1.1.

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UK Figure 1.1 – The UK health care cycle

D. Medical support to major combat operations

1.11 Large scale/major combat operations are challenging to medical support due to factors such as the number of force elements and troops involved and the potential impact on the civil population and infrastructure.⁶ Military medical services may not be able to cope with the expected casualty rates whilst the civil medical infrastructure will be struggling to meet civilian needs particularly in densely populated areas. The resilience required to manage such a scenario relies on political will and action, robust contingency planning, maintenance of the respective infrastructure, a comprehensive civil-military cooperation and on mutual support of all nations and organizations engaged.

1.12 Theatre entry will likely be contested and air superiority cannot be assumed. Once the force is inserted, lines of communication (LOCs) may need to be established and maintained. The force will require transport means with the capacity for medical evacuation (MEDEVAC) of large numbers of patients at a time (possibly from multiple locations) and medical treatment facility capacity and throughput for numerous patients.

1.13 In addition, major conflict can have a significant impact on local civil health systems, services, infrastructure and talent and many facilities and services may be destroyed or rendered useless. Local civil authorities may request healthcare assistance from NATO commanders in these circumstances. Such requests could present commanders and their staffs with difficult choices concerning mission mandate and priorities, capability availability, capacity and sustainment and, gaining or maintaining the will of the local population.

E. Medical support to stabilization and reconstruction

1.14 Reconstruction aims to facilitate stabilization by establishing or maintaining government legitimacy, enabling the return of displaced persons, and promoting a return to normality. Security and the provision of public and social goods and services are mutually dependent; whilst security is needed to enable the provision of services, tangible progress on reconstruction is necessary to help sustain enduring security. Indeed, poor infrastructure and a lack of access to services and infrastructure that are essential for daily living will likely contribute to instability and threaten government legitimacy. Restoration of services supports life-saving and harm prevention activities and provides the necessary infrastructure for initial recovery and future

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6 In NATO common language also referenced as major joint operations (MJO, MJO+)

development. Essential services include sewage, water, electricity, academics, trash, medical, security and rule of law.

1.15 The restoration of services is primarily a civilian responsibility and military forces will likely contribute to establishing a secure environment and setting the security conditions required by other agencies to conduct their restoration tasks. However, in some circumstances such as emergencies, military forces may be the only assets available or with the expertise to initiate the restoration of essential services. In such instances, military units should undertake such tasks with the clear intention of transferring them to local, regional and national (governmental) organizations and institutions as soon as possible.

1.16 NATO medical elements may have a role providing medical support to other NATO force elements contributing to stabilization and reconstruction. In addition, NATO medical elements may assist the local authorities with the reestablishment and improvement of local health services and in extremis, temporarily obviate gaps in health service provision until services are restored by the local authorities. There is a range of medical support activities that forces can engage, from direct healthcare provision to public health activities. Any provision of medical treatment to the local population by NATO force elements must be carefully planned against local standards, involve local authorities (or their agents, for example, the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA); and, be sustainable by the local authorities once NATO force elements withdraw.

UK 1.7. Specialist trained personnel are held in the Medical Operational Support Group within the 2nd Medical Brigade to provide staff planning and technical assistance in these tasks. Short-term training teams are regularly deployed to provide support to indigenous forces. Personnel are generated from across the medical services depending on the knowledge, skill and experience required. Strategic-level expertise is also available from the 77th Brigade's Engineer Logistic Staff Corps.



F. Medical support to joint peace support

1.17 Peace support encompasses a series of military efforts such as conflict prevention, peace-making, peace-enforcement, peace-keeping and peace-building, conducted impartially to restore or maintain international peace and security. Conflicts often result in poor hygiene conditions, poverty

and damage to critical infrastructure and industrial plants and consecutively in an increased human health risk for the local population as well as for the forces deployed.

1.18 Military medical services are principally designed to provide medical support to their forces and not to the local population. However, in areas where the health infrastructure has been damaged or non-existent, commanders may need to consider support to the population too.

1.19 Liaison with civilian medical authorities, organizations and facilities is important for a coordinated and where possible, collaborative response. The general rule should be to support the appropriate lead. If a government or authority exists, this should take primacy whatever size its capability is. If the state is ineffective, a lead agency can coordinate the provision of health services temporarily.⁷ Where medical support is provided to the civilian population, it has to meet standards acceptable to both the providing nations and the receiving country.

G. Medical support to smaller joint operations

1.20 Smaller joint operations, such as observe, advise, and training missions are often characterized by over-extended lines of communication and very limited assigned support capabilities. In addition, force elements may be dispersed throughout the theatre of operations.

1.21 Medical support may rely on civil host nation support or contracted private capabilities, where available. The medical and care standards of these capabilities may not always meet the standards of the troop contributing nations (TCNs). In some instances, smaller joint operations might be supported by an integrated medical team with some primary healthcare, surgical and medical evacuation capabilities. Medical support for smaller joint operations needs to be tailored to the force size and mission and must consider alternative medical support concepts such as that of prolonged field care.

1.22 Military personnel deployed on smaller joint operations may need to independently perform emergency care techniques typically reserved for medical professionals and should be trained and equipped accordingly.

.....
7 In most instances, The United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) will be the mandated lead agency and will be supported by other agencies such as the World Health Organisation, UNICEF, and non-governmental organizations.

They also need to be aware of possible health threats and may need basic knowledge in wilderness and preventive medicine for self and buddy care.

H. Medical support to international disaster relief operations

1.23 Disaster relief can be described as the organized response to alleviate the situation resulting from a natural or manmade catastrophe. The stricken country remains the responsible party for disaster management. If an international response is requested, the United Nations will retain the primary role in the coordination of international disaster relief operations. NATO and partner nations may request assistance through the Euro-Atlantic Disaster Response Coordination Centre (EADRCC). The EADRCC will not duplicate the United Nations role but complement and provide additional support. Military forces will only be involved:

- upon request of the affected country's authorities (i.e. civil primacy);
- as a last resort when non-military actors cannot provide a sufficient disaster response or require further augmentation;
- in conjunction with other governmental and non-governmental agencies, either within the framework of an on-going NATO mission, or as a stand-alone humanitarian engagement.

In the latter case, the operation often involves a considerable degree of military protection as well as logistic and medical support.

1.24 The particular nature of the disaster, the geographical location and the affected population and infrastructure will define the health threats to be addressed, the types of injury and illness and the number of casualties to be treated, and the medical response required. Epidemic events, poor living conditions and an absence of basic utilities may contribute towards the breakdown of health in the population.

1.25 The medical contribution to disaster relief aims to mitigate the effects of such events. It includes immediate assistance and preventative measures to save life and lessen suffering, reduce psychological distress, limit damage and restore essential services. The medical response to disasters must be rapid, as well as being planned and coordinated with local authorities, international organizations and non-governmental organizations.

1.26 Clear guidance on legal issues, such as the liability for and scope of medical practice, is necessary and must be harmonized between the joint force commander, the troop contributing nations and the host nation prior to deployment. The overall responsibility for an effective medical evacuation system lies with the stricken country's medical authority or its appointed agent. Patients should normally not be removed from their country without their nation's authority, insofar as such an authority exists.

1.27 Expertise and experience in critical incident management, public health and humanitarian assistance is essential to coordinate medical support in international disaster relief operations. Proficiency in preventive medicine will help to ensure that the effects of the disaster are not made worse by the breakdown of the infrastructure in the affected area. The nature of the operation and the geographical location will dictate the medical skill mix and may require personnel, equipment and materiel to provide emergency treatment for the elderly, pregnant mothers and children.

1.28 Further guidance on medical support to disaster relief operations, humanitarian assistance, the care for dislocated civilians, and comparable missions not directly related to combat or peacekeeping is given by:

- MC 343 NATO Military Assistance to International Disaster Relief Operations;
- MC 327 NATO Military Policy for Non-Article 5 Crisis Response Operations;
- AJMedP-6 Civil Military Medical Interface (STANAG 2563);
- UN Office for Humanitarian Affairs (OCHA) Oslo Guidelines on the use of Foreign Military and Civil Defence Assets in Disaster Relief;
- ACO Directive 83-2 (guidance for military medical services involvement with humanitarian assistance and support to governance, reconstruction and development)

I. Medical support to joint land operations

1.29 Land operations vary considerably both in mission type and characteristics. They include amphibious, airmobile, airborne and follow-on force deployments, asymmetric, unconventional, hybrid and urban warfare

and may be conducted in environments such as arctic, desert, mountains and jungle. Medical support to land operations may range from medical support to the deployed force on the one end to health sector reform activities supporting the regeneration or development of local health care structures on the other. Medical support will usually be related to lines of communication, which in some instances will be long or widely dispersed. Each mission and its operational environment, will raise specific challenges for medical support:

- a. Lines of communication might be difficult to establish and easily interrupted, hampering the use of ground ambulances and the accessibility and supply of medical treatment facilities.
- b. Operational tempo might require medical units to change position on very short notice and within limited time.
- c. Units and facilities might be isolated, requiring casualty sustainment over prolonged periods.
- d. Rescue and evacuation assets might face a significant threat, which will be hard to counter, particularly where air superiority cannot be assured.
- e. Medical treatment facilities may not be placed in the relative safety of a rear support area where frontlines become indistinct, and a safe environment to set up and maintain appropriate medical capabilities, will not always be available.
- f. Medical care provided by local health care facilities or humanitarian organizations may not be available in a hostile or high-risk environment.
- g. Medical treatment facilities located in populated areas may be overburdened by high numbers of local (civilian) casualties.
- h. In support of and on request of local authorities or humanitarian organizations NATO medical units might be authorized by mandate to maintain limited capabilities for emergency treatment of civilians or refugees including the elderly, pregnant women and children.

1.30 Medical support requirements derive from the mission objectives, from the dimensions and nature of the area of operations, and from the size, composition and distribution of the population at risk (PAR):

- a. Medical units or elements must have comparable mobility and agility as the units/headquarters they are supporting.
- b. Rescue and evacuation of casualties will require a mission tailored adaptable mix of various air and surface assets for forward, tactical and strategic medical evacuation.
- c. Medical assets and facilities need protection by combat units, particularly when operating in austere or hostile environments.

UK 1.8. UK land medical treatment facilities (MTF) must deploy with appropriate force protection dictated by the threat assessment. This layered approach will incorporate a range of measures from self-protection, independent from combat force element support, to direct force protection.



- d. Agile and dynamic positioning and enhancement of medical capabilities is necessary to address clinical and operational needs and assure an appropriate medical footprint in support of dispersed populations at risk. A system of modular configured medical treatment facilities must be able to (temporarily) provide essential core capabilities, such as damage control resuscitation and surgery even in a hostile environment, supported and sustained with additional capacities and complementary capabilities from a secure location at a reasonable distance.
- e. Medical assets and facilities must be prepared for prolonged casualty care.
- f. Medical support activities in the area of operations need to be coordinated with key host nation, civilian, international governmental and non-governmental partners. A framework agreement with key partners should be outlined in advance of every mission, to assure a harmonization of efforts and understanding in each other's motives, objectives, capabilities and limitations.

J. Medical support to joint air operations

1.31 Air operations can be conducted from a main operating base (MOB), from a deployed operating base (DOB) located at a secured airfield, or from a maritime platform. The target area is often located at a distance and might be uncertain, non-permissive or hostile. Air superiority cannot always be assumed. Military aviation often exposes air-crews to extreme physical and psychological demands and requires extraordinary fitness and training.

1.32 Medical support for air operations has to reflect the complex technical and highly constraining intricacies of military aviation and medicine. Aviation medicine and occupational health specialists are required to provide aerospace medical expertise in support of air operations. These specialists should be available 24/7 and ideally, be an integral part of the MOB or the DOB command and support structure. At the MOB or the DOB, primary and secondary healthcare can be provided by military medical treatment facilities, by host nation support or by contracted civil healthcare facilities.

1.33 Rescue and evacuation of casualties from downed aircraft in uncertain, non-permissive or hostile environments might require joint personnel recovery, search and rescue or combat search and rescue capabilities, which might need to be enhanced with MEDEVAC professionals.⁸

K. Medical support to joint maritime operations

1.34 One of the most challenging characteristics of medical support in maritime operations is that ships and maritime medical treatment facilities are constantly moving, both absolutely and relative to other platforms providing or requiring support. Additionally, maritime areas of operation are often very large, covering sectors with different legal status (national, international) and maritime assets may be separated by great distances. Also weather conditions may hamper or delay patient transfer and limit the performance of medical procedures. Where independently operating small units with limited medical capabilities, such as submarines operate out of reach of adequate medical support (often over extended periods of time), commanders need to balance the importance of a mission carefully with the risk evolving from the over-extended medical treatment timelines.

1.35 Afloat medical support largely depends on the availability of platforms suited to accommodate medical treatment capabilities. Independent of their

⁸ MEDEVAC is described in 3.2.5 and AJMedP-2

size and importance to the operation, a wide range of ships are restricted by their design and configuration and can only carry a limited organic medical capability. Reinforcement of embarked medical treatment facilities is difficult, when they are deployed. In the maritime setting, platforms are usually not dedicated exclusively to a medical role or capability package. This may create a tension between medical and operational tasks regarding the medical role and capabilities and requires careful prioritization and re-evaluation by the platform commander during the various stages of the operation.

1.36 Whilst their inherent mobility allows platforms hosting medical treatment facilities to be repositioned quickly to meet medical requirements, it also allows them to move off-station rapidly for tactical or force protection reasons, which might result in a disruption of the continuum of care and established medical evacuation pathways. Medical evacuation must also consider the requirement for all aircraft approaching maritime platforms to be cleared for deck landings. Therefore, it is important that medical staff engage with commanders to mitigate these issues.

1.37 The same challenges apply for medical logistics. Storage space is limited aboard military vessels. At the same time, large distances or temporary inaccessibility of higher level medical treatment facilities may lead to extended timeframes a patient needs to be treated aboard a maritime platform with limited medical capabilities. The resulting higher consumption rate may influence that particular vessel's course or mission, if it is necessary to move into the range of a supply facility for resupply of critical medical supplies or accept risk in order to meet mission timelines.

1.38 Living in close proximity aboard of maritime assets may result in a higher likelihood of a disease outbreak and a greater difficulty controlling it. Additionally, an attack on a ship is likely to result in a larger number of simultaneous casualties from blast and subsequent fire in a confined space leading to severe burns, smoke inhalation and blast injuries. Large numbers of near-drowned patients exposed to the cold because of ship loss or significant ship damage is also unique to the maritime environment.

1.39 Maritime medical support should address the specific challenges and nature of the maritime environment outlined above. Maritime medical service personnel need the respective expertise and skills, including but not limited to preventive medicine & veterinary services, occupational health care, dive medicine, aviation medicine and a thorough understanding of specific maritime challenges, such as submarine escape and rescue.

L. Medical support to joint special operations

1.40 Special operations differ from conventional operations in the degree of political risk, in operational techniques and modes of employment. Special operations are frequently executed secretly or covert, for strategic purposes, on short notice, under harsh conditions in austere and hostile environments. Special operations require flexibility, precision, determination and agility.

1.41 Often medical service professionals, rescue, and evacuation assets cannot approach a special forces detachment during its mission due to the risk of compromise and harm. Even special forces operators on scene with advanced first responder skills may not be immediately able to care for casualties because of the tactical situation.

1.42 Medical support for special operations must address the most serious threats without diminishing special operations forces operational principles and requirements. Usually special forces must rely on conventional force support for most if not all support enablers, even if this might increase the risk of compromising operational security. Special forces will use conventional medical support capabilities where available and needed. Where possible, special forces will integrate medical service personnel specifically trained and selected to support special forces. AJP 3.5 Allied Joint Doctrine for Special Operations, NATO Special Operations Headquarters (NSHQ) Directive NSHQ 75-001 Medical Standards and Training Directive, and NSHQ Directive 030-001 Special Operations Medical Leaders Handbook provide guidance for special operations medical support.

1.43 Special operations first responders⁹ must be skilled and equipped for advanced combat casualty care. They may need to independently perform some techniques typically reserved for medical professionals. This refers to national regulations and often requires specific waivers or endorsements by national authorities.

1.44 Medical service personnel assigned or integral to special forces must be appropriately equipped and able to perform emergency and military medicine within the challenging special operations environment. Because special forces may operate in air, on land, or at sea, their medical service must cover a broad spectrum including dive medicine, flight medicine, tropical medicine, preventive medicine, mountain and wilderness medicine. In addition to their medical profession, special forces medical service personnel must maintain a

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 9 Trained and under supervision of medical professionals.

high state of physical fitness, be tactically proficient in the special operations environment and able to operate, move and communicate with the troops they are supporting.

1.45 Special operations forces commanders should be made aware of the 'reach' of their assigned medical capabilities and of the possible constraints this may have on operational tasking. Where forces are required to operate outside the area of medical coverage, not being able to meet clinical timelines, commanders must be advised of the increased risk for their troops resulting from delayed treatment.

1.46 Special operations forces medical equipment and supplies needs to be compact, lightweight, multi-purpose and capable of easy disposal, must withstand the extremes of temperature and field conditions and be simple to use in stress situations. For this reason, special operations forces frequently rely on off the shelf technologies specially designed for the special operations forces environment that are not common to the conventional medical supply distribution chains. The flexibility to procure and the authority to use these items require senior medical leadership involvement, and are critical to maintaining the edge that gives special operations forces units the advantage over large forces, particularly in an austere environment with prolonged evacuation timelines.

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UK 1.9. **Special operations.** UK special operations forces include integral medical command, control, communications, computers and information (C4I), primary health care, pre-hospital emergency medicine, medical evacuation, medical force protection and DHC capabilities. DHC capabilities are deliberately lean and agile providing damage control surgery (DCS). Contracted civilian medical capability may also be employed depending on the nature of the deployment. Medical integration with other NATO special operations forces members and Five Eyes partners (Australia, Canada, New Zealand, UK and the United States) is always considered when planning medical support to special operations. Medical support must be networked, agile, adaptive and lean in organisation and survivability. Continuous research and innovation are critical enablers to meet the challenges of the future; UK special operations forces play a critical role in enabling DMS research and innovation.



M. Medical support to joint theatre support operations

1.47 Depending on the mission and the operational scenario, theatre support operations are conducted by a joint logistic support group (JLSG).¹⁰ Theatre support operations include reception, staging and onward movement and integration of a deploying force via all the available disembarkation facilities, mainly the airport of disembarkation, the seaport of disembarkation or the rail port of disembarkation and transferring it up potentially long lines of communication.

1.48 Medical support to a Joint logistic support group conducting a theatre support operation will be planned at the operational level Joint Forces Commands headquarters. Appropriate medical support capabilities will be assigned to the joint logistic support group. The joint logistic support group commander will receive command and control of these medical support capabilities as long as they are assigned to the joint logistic support group. The joint logistic support group medical staff is part of the overall medical command and control structure and responsible for the coordination of medical support functions and medical assets within the area of responsibility assigned to the joint logistic support group. The senior medical officer of the joint logistic support group medical staff acts as medical advisor to the joint logistic support group commander.¹¹ He receives operational direction and guidance from the joint logistic support group commander and coordinates medical support to the joint logistic support group with the medical director / medical advisor for the theatre of operations, who will be located at the operational level headquarters and reports directly to the operational level commander.

1.49 To ensure medical support is available for the deploying force, necessary medical assets and facilities must be deployed and have the appropriate level of operational capability prior to the arrival of the deploying force. Once the joint task force is deployed and commences operations, all medical support capabilities and staff will be re-integrated into the overall medical support structure. On the subsequent redeployment of the force, appropriate medical coverage will need to be retained for rearward movement staging and dispatch only reducing in capacity commensurate with the force reduction.

¹⁰ See Allied Joint Publication (AJP)-4.6 Allied Joint Doctrine for the JLSG

¹¹ See also Chapter 2, Section 1: Medical Command and Control Architecture

Health service support to operations

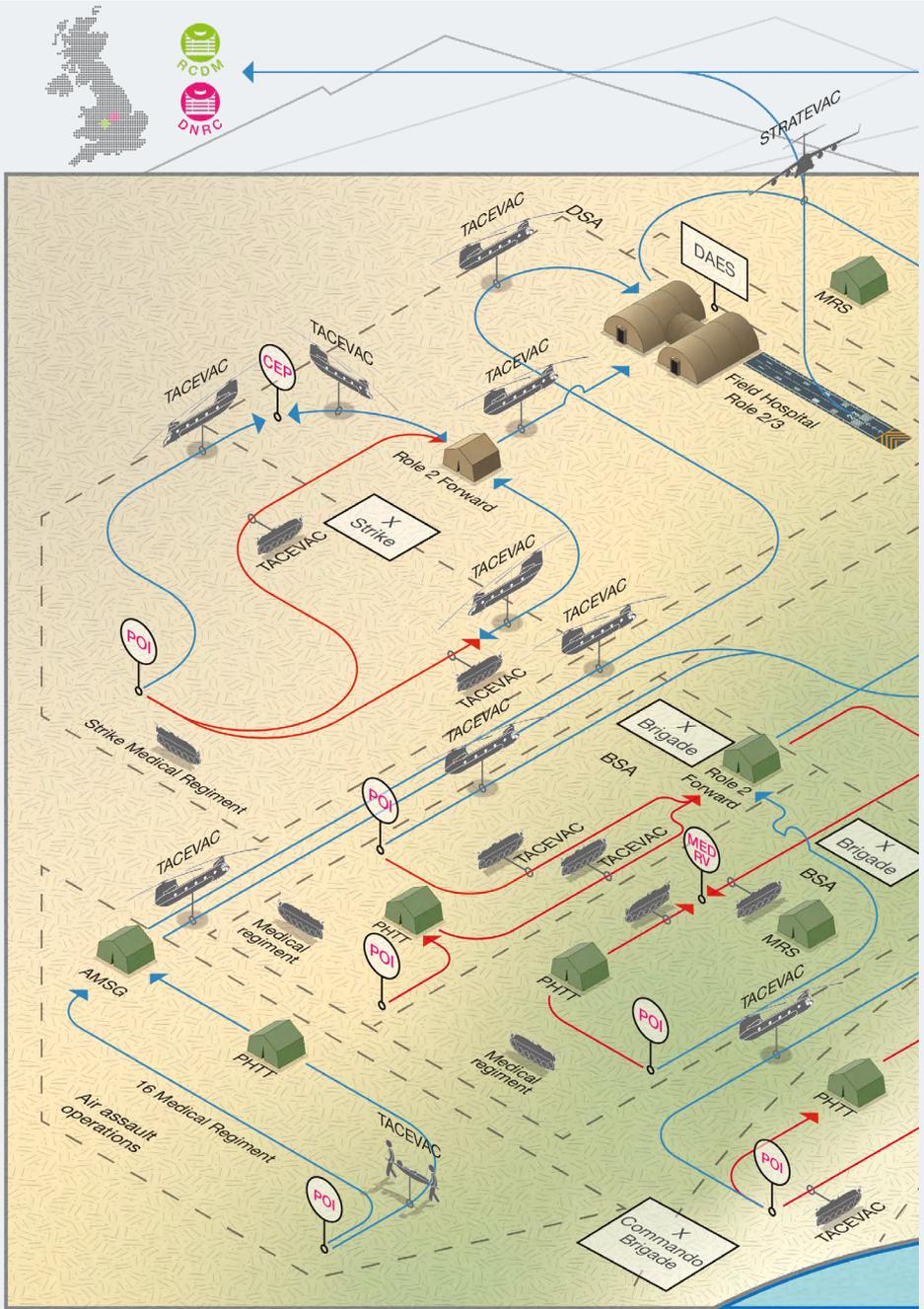


UK 1.10. Health service support to operations is designed to be joint from the outset, providing a continuous, seamless, escalatory increase in clinical care from point of injury/illness. Medical force elements are designed to provide environmental self-sufficiency (maritime, land and air) plus effective joint collaboration across components to ensure efficiency in capability and capacity as a joint enabler.

UK 1.11. UK Figure 1.2 is **representative** of the different capabilities that may be task organised to meet operational requirements. Examples include the Joint Expeditionary Force, Combined Joint Expeditionary Force or the Very High Readiness Joint Task Force. The complexity of medical evacuation within, and between, capabilities is shown by the multiple linkages between medical facilities that may well be combined and/or use host nation facilities. The following specific areas are illustrated.

- a. **Maritime component** – showing littoral and maritime deep-water operations.
- b. **Land component** – showing a division supported by a joint force logistic component. This includes deploying the Strike Brigade as an independent force element and as the third brigade in a divisional context.
- c. **Air assault operation** – showing both an independent joint expeditionary force lead element operation and an air assault operation in a divisional context.
- d. **Air component** – showing a separate air component operating as an expeditionary air wing. This may be part of the major intervention capability or a separate joint expeditionary force lead element operation.
- e. **Strategic Role 4** – this includes the need for: a strategic aeromedical evacuation chain; specialist scientific and clinical advice; UK casualties being received by RCDM; and their subsequent care at DNRC.

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AMSG	Air Mobile Surgical Group	DAES	deployed aeromedical evacuation squadron
APOD	airport of debarkation	DNRC	Defence National Rehabilitation Centre
BSA	brigade support area	DSA	divisional support area
CEP	casualty exchange point	EAW	expeditionary air wing
CFSG	Commando Forward Surgical Group	FSC	forward surgical capability

UK 1.12. **Maritime operations.** Role 1 support is based on medically trained personnel being assigned to every allocated maritime platform. Role 2 support is provided by medical personnel in platforms specifically equipped and designated with a Role 2 afloat facility (2/1/2/0) as a secondary capability. Role 3 support is provided by the primary casualty receiving facility (PCRF) fitted to Royal Fleet Auxiliary (RFA) Argus when it is designated as the primary casualty receiving ship. This has expandable capacity from 2/2/5/15/10 to 4/4/10/20/70 (intermediate care ward beds are split into high and low dependency (20/70) as the latter (currently) consists of bunk bed accommodation). Medical evacuation in the maritime environment is provided by maritime in-transit care teams allocated to assigned platforms (boats or helicopters). Patients will be transferred to shore-based medical facilities (illustrated as host nation) and then strategically evacuated to the UK. Command of health service support to the maritime component will be embedded within the maritime battle staff.

UK 1.13. **Littoral operations.** The Lead Commando Group is supported by the Commando Medical Group comprising of regimental aid posts (RAP), dental teams, a nascent forward surgical capability, Commando Forward Surgical Group (CFSG) and a medical reception station (MRS). Role 1 support is provided by a RAP embedded in combat and combat support forces. The medical squadron of Commando Logistic Regiment provides reinforcing medical support which aims to provide forward surgical capabilities (at 1/1/1/2), which can come together to form a CFSG (at 2/1/2/4) and a MRS. Due to the limited holding capabilities of the forward surgical capability and the CFSG, any littoral operation must be supported by other DHC capabilities such as the PCRF afloat, army field hospitals or host nation hospital care. Command of the health service support to the littoral is embedded in 3 Commando Brigade Headquarters but it is likely that extra medical staff will be needed in the maritime component headquarters to manage the OPCP. The medical squadron of Commando Logistic Regiment provides reinforcing medical support but is likely to require additional in-transit care capabilities to enable the OPCP.

UK 1.14. **Land operations.** The warfighting division is supported by a divisional medical group formed from the medical regiments, organic battlegroup unit aid posts and a divisional medical regiment providing support to the divisional support group and second-line support to the wider division. This should be further enhanced by providing DHC facilities. Brigade medical groups will control organic medical support to battlegroups and provide reinforcing medical support on an area basis to battlespace

owners (including combat service support). Pre-hospital care will usually be delivered by independent prescriber-led pre-hospital treatment teams (PHTTs), supported by general practitioner-led medical reception stations providing enhanced primary care, peripatetic services and pre-hospital emergency care stabilisation. Where required, the pre-hospital emergency care capability and capacity can be enhanced by reinforcing a MRS with a ground medical emergency response team or deploying a Role 2 Forward facility. The OPCR is underpinned by ambulance-enabled medical evacuation. The medical evacuation pathway is dependent upon the tactical situation and platform availability but will be a dynamic, integrated blend of air and land. Where time or distance precludes provision by a single DHC facility, DHC may be echeloned into DHC (Forward) and DHC (Rear) facilities. DHC (Forward) MTFs will be mobile and focus on DCS within two hours. DHC (Rear) will likely be static and focused on providing further necessary surgery. Elements of the Reserves, including 335 Medical Evacuation Regiment, 306 Hospital Support Regiment and the Medical Operations Support Group may also be required to deploy. The exact medical command and control structure will depend on the operation, but it is likely a commander medical and supporting staff in either the joint task force headquarters or the Joint Force Logistic Component Headquarters will have responsibility for providing deployed health service support.

UK 1.15. **Air assault task force.** The air assault task force is supported by the air manoeuvre medical group from 16 Medical Regiment, including unit aid posts from combat and combat support battle groups. The air manoeuvre medical group includes two air manoeuvre surgical groups, each providing a Role 2 Forward facility at 1/1/1/0 through to a Role 2 Basic facility up to 2/1/2/6. Command and control of health service support to the air assault task force is provided by the 16 Medical Regiment Regimental Headquarters embedded with 16 Air Assault Brigade Headquarters (Forward). The very high readiness field hospital may deploy in support of an air assault task force operation if it needs enhanced DHC when operating as an independent formation.

UK 1.16. **Field hospitals.** Field hospitals are force-generated by Army Headquarters but support the whole force. They require significant support from non-medical force elements, such as field engineering, communications and information systems, movement and supply. Field hospitals are modular by design and can provide scalable DHC capability ranging from Role 2 Basic to Role 3. They will also provide the necessary force elements to generate and deploy independent Role 2 Forward

capability. The field hospital may be augmented by clinical personnel in a theatre clinical enhancement team from 306 Hospital Support Regiment to provide specialist clinical care such as ophthalmology, head and neck surgery, neurosurgery, paediatric nursing or midwifery.

UK 1.17. **Area medical support.** Area medical support to the joint logistic support area for a major intervention capability may be provided by a light or divisional medical regiment. This is likely to be under tactical control to the battlespace owner but would remain under operational control to the medical group.

UK 1.18. **Theatre-level health service support.** Theatre-level support comprises those medical force elements that support more than one component or contribute to operational rather than tactical effects.

UK 1.19. **Air operations.** The pre-hospital care squadron provides all the capabilities of operational health care (less DHC) to the expeditionary air wing. Each pre-hospital care squadron is able to support a deployed operating base and an air point of disembarkation, plus provide combat medical support to a Royal Air Force (RAF) Regiment field squadron. There are sufficient pre-hospital care squadrons to support the joint expeditionary force at maximum concurrency. Expeditionary air wings may also be supported by a hospital staging unit (1/1/4/25) DHC medical treatment facility, incorporating aeromedical evacuation patient hold capability. Tactical Medical Wing can deploy a specialist deployed aeromedical evacuation squadron with niche medical capabilities including the high consequence infectious disease (HCID) isolator, renal replacement therapy and physician-led strategic aeromedical evacuation teams.

UK 1.20. **Deployed aeromedical evacuation squadrons.** A deployed aeromedical evacuation squadron provides theatre-level aeromedical evacuation clinical teams that may be assigned under tactical command as required. There are sufficient deployed aeromedical evacuation squadrons to support the Joint Expeditionary Force at maximum concurrency. It is comprised of the following elements.

- a. **Forward aeromedical evacuation.** A forward aeromedical evacuation team provides the medical contribution to an incident response team to give, up to, specialist-led pre-hospital emergency care to continue resuscitation during forward medical evacuation. (Primarily configured for rotary-wing medical

evacuation but can operate within a protected future battlefield ambulance.) Two teams are required to provide continuous 24-hour cover.

- b. **Aeromedical evacuation team.** An aeromedical evacuation team provides clinical aeromedical escort for up to five low/minimal dependency patients (dependency levels 3/4). This can be augmented by a general medical practitioner, physician, anaesthetist or mental health specialist from elsewhere in the deployed aeromedical evacuation squadron if a patient has specialist clinical needs.
- c. **Critical care air support team.** A critical care air support team provides the capability to move critically ill (dependency level 1/2) through the aeromedical chain. It can escort one critical care air support team patient.
- d. **Aeromedical staging unit.** An aeromedical staging unit is a medical unit operating transient patient beds located on, or near, an emplaning, staging or deplaning airbase or airstrip. It facilitates reception administration, processing, ground transportation, feeding and appropriate clinical care for patients within the aeromedical evacuation chain. It can hold patients for up to 48 hours.

UK 1.21. **Medical reserve forces.** The reserve medical organisation is mainly based on the Army Reserve, although small but significant portions are found within the Royal Naval Reserve and Royal Air Force Reserve. The reserve medical organisation is likely to always be required in support of our regular forces for larger operations and to provide specialist individuals for small-scale operations. As well as formed units, there are individual reservists who may be called out on mobilisation. Their conditions of mobilisation are contained in the Reserve Forces Act. The level of reservists' individual skills, both military and clinical, should be taken into account when considering using them. Time for assessment and retraining may be needed, which has implications for readiness.

Section 2 – Principles, policies and standards of medical support

1.50 Medical support should always comply with best medical practice and the laws, rules and requirements set out in national systems or by international organizations. The standards of practice and care delivered on operations should be at least equal to that delivered at the home base, even if the environment in which medical support to NATO operations has to be delivered, differs significantly from the one within the national home base. Therefore, the Chiefs of Medical Services (COMEDS) in NATO identified the principles depicted in figure 1-1 which were established through the NATO Military Committee publication MC 326/4 - Principles and Policies of Medical Support. This publication translates MC 326/4 and the timeless Principles and Policies of Medical Support into operational direction and guidance.

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UK 1.22. **Medical care standards for UK military personnel.** The standard of clinical health care delivered by the DMS to the Defence population at risk, when deployed or in the firm base, is benchmarked against comparable NHS and international standards. DMS clinical practice will always comply with international law and professional ethical obligations. Any risks identified by medical planners that may compromise this standard must be highlighted to operational commanders so that they can be properly mitigated, or a decision taken to manage the risk.



Principles of Medical Support

1. Medical support is to be provided in compliance with humanitarian, ethical and legal standards such as the Law of Armed Conflict/Law of War, the Geneva Conventions and the Oslo Guidelines published by the United Nations Office for the coordination of humanitarian affairs (OCHA) but also with the respective national regulations for both the military and the clinical profession.¹²
2. Emergency care of acute life threatening conditions should not be denied within the capability/capacity of the medical resources deployed.
3. Medical confidentiality is to be ensured, sensitive clinical information is not to be communicated to any individual or organization that does not have a medical need-to-know.
4. Medical support is to be provided under the primacy of clinical need.
5. Medical support should always strive to achieve a standard of care equating to internationally accepted best medical practice.
6. Continuity of care should be ensured from lower to higher levels of care.
7. Timeliness of treatment should be ensured according to clinical evidence.
8. Patient welfare should always be ensured.
9. Medical support should be based on cooperation of all parties involved.
10. Medical support should be compatible. Medical forces should be prepared, equipped, trained, and ready for deployment as the forces they support.

Figure 1-1. Principles of medical support

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 12 By some Nations/Organizations the LoAC/Law of War is referenced as International Humanitarian Law (IHL). Those nations/organizations consider the LoAC/Law of War a branch of international law which they believe regulates the conduct of war (jus in bello) and seeks to limit the effects of armed conflict by protecting persons who are not participating in hostilities, and by restricting and regulating the means and methods of warfare available to combatants. It comprises a set of rules, established by treaty or custom, including the Geneva Conventions and The Hague Conventions, as well as subsequent treaties, case law, and customary international law".

UK 1.23. The UK applies a broader definition of continuity of care. It means uninterrupted and appropriate medical attention and response to the needs of casualties throughout the chain of their medical treatment and evacuation. Patients passing through the medical system must be given continuous and relevant care. Care must be available when patients are in transit during medical evacuation.



A. Protection of medical capabilities

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1.51 Medical personnel, equipment, installations and vehicles (including maritime vessels and aircraft) as defined by the Geneva Convention should be respected and protected in all circumstances, particularly if clearly identifiable by distinctive emblems. Medical units and military medical personnel retain their protected status as long as they are exclusively acting in their humanitarian function. Medical personnel retain their obligations under the Geneva Convention irrespective of whether the protective emblem is displayed. Medical personnel are permitted to carry and use arms for their own defence, or to defend the wounded and sick in their charge, but not to support the collective protection of non-medical facilities and assets.¹³ Medical capabilities are not to be used to acquire any military advantage, or to collect or transmit intelligence data.

1.52 Commanders at all levels have the responsibility to ensure the protection of medical assets and, that the Red Cross, the Red Crescent, the Red Crystal (Diamond) or any other recognized distinctive insignia are respected and not used improperly.¹⁴ Violations would negate the protection afforded by humanitarian law and could call into doubt the law of armed conflict and the use of protective emblems elsewhere. When the protected status of NATO medical capabilities is not respected (as it is often the case in irregular or hybrid warfare), commanders are empowered to authorize the masking of protective emblems and the protection of medical capabilities and those in their care by combatant personnel with appropriate weapon systems.^{15 16}

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13 As defined by the Geneva Convention

14 See ATP-79 Orders for the Camouflage of Protective Medical Emblems on Land Tactical Operations.

15 The masking/camouflaging of protective emblems refers to national regulations and legislation, therefore commanders can only authorize but not mandate the masking of protective emblems. The use of mounted weapons is not permitted for medical personnel acting under their protected status. It is the exclusive authority of the nations to change the status of their medical personnel into combatants in extremis. Commanders can only authorize non-medical military personnel to use appropriate weapon systems to protect medical assets or facilities.

16 after consulting the Medical and Legal Advisor

UK 1.24. International humanitarian law (often referred to as the Law of Armed Conflict) has implications for health service support. Examples include the restrictions on the arming of medical personnel and the use of ambulances. UK Annex 1A outlines these implications and highlights areas that need to be considered.



B. Eligibility related principles and policies of medical support

1.53 During operations, numerous categories of personnel may seek help in NATO's medical treatment facilities especially when the host nation civil health care infrastructure is not able to provide adequate care. Those include, but are not limited to:

- NATO military/service personnel;
- host nation military/service/security personnel;
- NATO diplomatic staffs & other NATO civilian personnel;
- NATO Agency civilian employees;
- NATO employed civilian contractors;
- member national and troop contributing nations diplomatic staffs and government employees;
- employees of international organizations;
- employees of non-governmental organizations;
- locally employed civilians (by NATO);
- local population;
- persons distressed at sea;
- persons deprived of their liberty;
- refugees;
- internally displaced persons;
- members of the press/media;
- foreign company employees;
- tourists/travellers.

1.54 Medical rules of eligibility: In close cooperation with the medical staff, the operational level commander defines who is eligible for medical care in deployed medical treatment facilities and establishes the respective "medical rules of eligibility". The medical rules of eligibility are part of the medical contribution to the operation plan. They should be guided by operational requirements as well as by ethical and legal principles and ensure, that health service support capabilities can provide appropriate treatment and care when

it is needed. There will be a requirement to harmonize the troop contributing nations' medical rules of eligibility with those of the operational commander to ensure that the local engagement of NATO health care providers is balanced against operational requirements and the strategic and operational objectives of Alliance operations. The Law of Armed Conflict, recognized laws pertaining to human rights and the principles outlined in the Military Committee publication MC 326/4, set the legal and ethical baseline to define the population at risk eligible for military medical support.

UK 1.25. **Human security.** The United Nations Security Council Resolution (UNSCR) 1325 was adopted in 2000. It affirms the important role of women in the prevention and resolution of conflicts, peace negotiation, peacekeeping, humanitarian response and post-conflict reconstruction. It also calls on all parties to take special measures to protect women and girls from gender-based violence. The concept of human security has broadened to incorporate protecting all civilians and children who might be affected by conflict. In 2019, the UK Armed Forces were directed to implement UNSCR 1325 as policy.



UK 1.26. **Conflict-related sexual violence.** The DMS has been tasked with being able to deploy personnel, when required, to support survivors of conflict-related sexual violence (CRSV). This is to be achieved by being able to, in extremis, respond directly to the health needs of survivors of CRSV and to be able to deliver post-exposure prophylaxis. Indirectly, DMS personnel should be able to provide training to the medical staffs of other militaries on responding to CRSV and, where appropriate, provide training on woman's reproductive health to civilians in the operational area.

C. The theatre patient return policy

1.55 In close cooperation with the medical advisor and the headquarters medical staff, the operational level commander will establish the theatre patient return policy, defining the maximum length of time (in days) a patient will be allowed to receive treatment in theatre, to recover and return to duty. Personnel not able to return to duty within this limit should be transported to their nation's firm base as soon as it is considered appropriate.¹⁷ Used in

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 17 Firm base – includes installations essential to enhance health readiness and resilience of all military personnel, but also to promote healing and to support rehabilitation to full physical, psychological and social function, enabling patients to return to duty or to prepare for discharge from military service

this way, the theatre patient return policy provides a mechanism by which patient's needs are balanced against the need to ensure that sufficient medical treatment and evacuation capacities remain available to support the force. The theatre patient return policy needs to be dynamic and able to respond to operational imperatives. It has also to consider factors such as public expectations, national policy and the cost efficiency and to ensure that:

- a. appropriate medical capacities and capabilities can be maintained in theatre to meet urgent operational needs; such as surges in casualty numbers.
- b. seriously ill and injured patients receive timely and appropriate treatment to stabilize and prepare them for strategic evacuation.
- c. less serious sick or injured patients are managed at the lowest appropriate level of care facilitating their return to duty in a reasonable time.

D. Medical care for persons deprived of their liberty

1.56 Medical care to any persons deprived of their liberty by NATO forces should be consistent with medical ethics and applicable law of the host nation, the troop contributing nations and international agreements. International law requires that persons deprived of their liberty receive medical care and attention defined by their condition and that they are to be treated, evacuated and discharged from medical care using the same clinical criteria as applied to the capturing nation's own personnel. Medical care to persons deprived of their liberty by NATO forces should follow the principles depicted in figure 1-2.

1.57 During armed conflict, captured enemy medical facilities, medical materiel and retained enemy medical personnel may contribute to the medical management of persons deprived of their liberty, particularly to counter language or cultural challenges. They also may contribute a particular expertise of endemic disease not normally seen in the troop contributing nations. Medical support planning must consider, if additional medical capabilities and capacities are required. The capturing nation retains the legal responsibility that appropriate medical treatment is provided for any person transferred to the custody of another nation.

1.58 Medical staffs need to be involved in the planning and operation of detention facilities, particularly when the persons held in them may pose a risk

to those guarding them from poor hygiene practices or endemic disease. The medical authorities will need to develop a preventive medicine strategy, ensure the provision of primary health care services within the facility and ensure that the guarding force has adequate medical support.

UK 1.27. Medical support to captured persons is covered in detail in Joint Doctrine Publication 1-10, *Captured Persons*. When planning health service support to operations, health care to captured persons is to be factored into resource calculations.



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Principles of medical care to persons deprived of their liberty

1. Their physical and mental health and the integrity of their persons should not be endangered.
2. All necessary measures should be taken to prevent epidemics in detention facilities.
3. They should be provided with an adequate and, if possible, culturally appropriate diet.
4. Their general health state should be examined by medical personnel as soon as possible after deprivation of liberty and thereafter at least once a month.
5. They should not be denied to present themselves to the medical authorities for examination at any time.
6. They should be supplied with any apparatus necessary for their maintenance in good health, such as spectacles, dentures and other prostheses.
7. Where their state of health requires it, they should be transferred to specialized establishments for special treatment or surgery.
8. Medical procedures, not indicated by the patient's state of health, particularly experiments on persons deprived of their liberty who are sick and wounded are illegal and strictly forbidden.

Figure 1-2. Principles of medical care to persons deprived of their liberty

E. Medical care for non-combatant patients

1.59 The operational commander has the authority to authorize but also to limit medical support to non-combatants based on factors like the force's medical capacities, the workload of its medical assets and facilities and the availability of medical supplies. However, in the case of acute life threatening conditions, emergency care should not be denied within the capability/capacity of the medical resources deployed. The principles of medical support to non-combatants are depicted in figure 1-3.

Principles of medical care for non-combatant/civilian patients

1. Medical support for non-combatants/civilians should provide emergency care up to life, limb or function preserving surgery to all patients that require it and are presented to a military facility only restricted by the medical treatment facility's means, capabilities and capacities and its primary task to provide medical support to the military population at risk.
2. Medical support for non-combatants/civilians should limit periods of hospitalization of patients to the minimum necessary to ensure an effective capacity to accept and treat new patients is maintained.
3. Medical support for non-combatants/civilians should adapt therapeutic protocols to the local health situation. It may not be appropriate to undertake a course of treatment if the host nation's clinical infrastructure does not have the capability to successfully complete the treatment after discharge from the military medical system.
4. Medical support for non-combatants/civilians should respect cultural and religious practices and preferences.
5. Medical support for non-combatants/civilians should return the lead for provision of treatment to the host nations' health care system as early as possible.

Figure 1-3. Principles of medical care for non-combatant patients

1.60 Particularly when high numbers of casualties require medical care, it may be necessary to avoid initiating complex or comprehensive clinical procedures as this would tie-up valuable clinical resources. The general

principle of doing the most for the most may be the best use of finite resources.

F. Principles for a civil military medical support cooperation

1.61 Though not their primary operational function, mission objectives might require that NATO military medical services contribute with their capabilities, resources and skills to crisis response operations, collective defence and cooperative security, building partnership capacity and security cooperation by support, reconstruction and development of civil health care infrastructure. The coordination may require collaboration between NATO and member-national medical and military engineering staffs. The ability to deploy on short notice in any operational environment, with a dedicated support and command and control architecture makes NATO's military medical services an exceptionally useful and effective instrument. The type of the mission and the specific situation in the area of operations will primarily define civil-military relations during allied operations.

1.62 The deployment of military medical assets in a comprehensive approach, requires a clear understanding of the strategic goals to ensure, that the needs of the affected population will be addressed accordingly, both in the short and longer term:

- a. Organizations other than NATO are likely to be involved, necessitating the definition of responsibilities to avoid competition, a duplication of efforts or gaps in the overall aid provided. The World Health Organization (WHO) standards for medical care and the United Nations Office for Coordination of Humanitarian Affairs (UN OCHA) guidelines should always be considered. In principle, NATO should only deliver medical support on a subsidiary basis when non-military health care organizations are unable to meet the overall requirement, or if overall capabilities are exceeded. Effort should be made to support host nation health care structures and care providers as much as possible to maintain the population's confidence and support for the host nation's government. Specific policies on sharing of medical information must be developed in concert with the local medical authorities. Military assets should not compete with local civilian capabilities or the activities of civil organizations.
- b. The affected population should be encouraged to help themselves. Medical care provided to the local population and livestock should be

sustainable and orientated on prevailing local peacetime standards. A common mistake in medical military assistance activities is expecting a partner force or civil health system to change its cultural or legal practices to conform to western standards. Another pitfall is to deliver supplies and training with equipment not common to and not sustainable by the local healthcare authorities after the force leaves. Donations of medical equipment, devices and pharmaceuticals must be conducted in accordance with national and NATO policy and the World Health Organization (WHO) guidance.^{18,19} A careful balance between the extent of technically possible care and appropriate care is necessary taking into account aspects like the availability of medical follow-up capabilities, own means and capabilities and the need to have sufficient capabilities and capacities left for support of the NATO force.

c. All military effort should be limited in time and scope, with a clearly defined exit strategy for handover to civilian actors. A return to the pre-crisis status quo, in terms of self-help, should be as rapid as possible to avoid long-term aid dependence. Improvement of services beyond the pre-crisis status quo should be avoided, especially if they require sustainment support that is likely to be lacking in the long term. Short-term activities may have a long-term impact. Disengagement and the transfer to permanent or semi-permanent organizations or bodies must be ensured before considering engagement and particularly withdrawal.

1.63 It is critical that the cultures, capabilities, structures, and functional organization of all civil authorities and organizations involved, are clearly understood and respected by NATO commanders and their medical staff. Civil humanitarian organizations will make their decisions based on an assessment of the expected benefits of civil-military cooperation versus negative consequences for their perceived neutrality and freedom of decision-making. This is particularly important for non-governmental organizations whose protection depends upon the maintenance of perceived impartiality in regard to governmental or political objectives in the affected location. Such organizations will aim to achieve a clear delineation between their activities from those carried out by military forces. While some may be willing to engage in dialogue with armed forces at all levels, most if not all will preserve their independence of decision-making and action. The imperative for civilian organizations is to ensure unimpeded humanitarian access to the civilian population at risk. As a result, in their relations with military medical forces,

18 WHO. Guidelines for medicine donations. (2011)

19 WHO. Medical device donations: considerations for solicitation and provision. (2011)

non-governmental organizations specializing in the provision of healthcare will always try to ensure their activities are not perceived as a contribution to the military effort, as this would likely restrict their humanitarian access.

1.64 In the context of resilience, stabilization, reconstruction and development, host nation (HN) or local medical capabilities, assets or facilities are primarily to be used to assure medical support to the local population. On the basis of legal agreements, specific regional medical capabilities can complement and sustain the joint combined end-to-end medical support system, as long as this does not have a negative impact on the local health care system. Any NATO military medical activities competing with local health care structures should be strictly avoided. The potential negative impact on the local healthcare system makes them both ethically and socially unsustainable.

1.65 Involvement of military medical service capabilities should only support and maintain local civil health care infrastructure if this does not affect the ability of the medical service to support the operational commander's mission. Further guidance on this topic is given by:

- MC 327 NATO Military Policy for Non-Article 5 Crisis Response Operations
- MC 411/2 Military policy on Civil-Military Cooperation (CIMIC) and Civil-Military Interaction (CMI)
- AJMedP-6 Civil Military Medical Interface (STANAG 2563)
- UN OCHA - Oslo Guidelines
- ACO Directive 83-2 (guidance for military medical services involvement with humanitarian assistance and support to governance, reconstruction and development)

G. Multi-national medical support

1.66 The principle of 'collective responsibility' encourages NATO member states to corporately bear the operational burden. Standardization, cooperation and mutual assistance enables nations to share in the provision and use of operational capabilities and resources; this promotes effectiveness and helps minimize duplication of effort and the deployment of redundant contributions.

1.67 Each member state's national security/defence strategy and policy has implications for the provision of healthcare and the diversity within the Alliance necessitates a balance between national and NATO requirements. To be considered in this context are: force structures; legislation; educational

requirements; cultures; political perspectives; operational procedures, and technical compatibility.

1.68 There are various ways in which nations can be involved in the provision of medical support to a multinational force allowing each nation to adopt an approach best suited to its individual circumstances and national policy. Nations can decide for any reason to change their degree of participation or to stop it at any time, except for forces already deployed, where a change should not be applied without an advance notification. For successful integration, nations must have confidence that the arrangements are both flexible and reversible, so that they can be adapted as circumstances change.

1.69 National contributions to multinational medical support can range from purely national in nature to fully integrated multinational medical units. In any case responsibilities and authorities are to be addressed by a memorandum of understanding (MoU). The level of interaction will increase with nations deciding to develop cooperation. Options of multinational cooperation include:

- a. **Independent single nation:** Nations may, for a variety of reasons, choose to medically support their forces with a purely national effort. In this way a nation assumes the total mission of providing medical assets and evacuation means to their units. By agreement, the nation may opt to allow other nations' forces evacuation and treatment access in their medical facilities. An official agreement or memorandum of understanding (MoU) needs to define the nations' and the commanders' responsibilities and authority.
- b. **Customer:** Nations lacking the required medical support capabilities as a whole or in parts may compensate a respective Lead Nation and/or Capability Specialist Nation, which ensures the required medical support to their troops.
- c. **Module provider:** The modular approach offers many possibilities to provide modules within required medical support capabilities.²⁰ Nations may offer their available modules during force generation without becoming capability specialist. This choice is particularly flexible.
- d. **Capability specialist/role specialist nation:** Common supplies and services may most efficiently be provided by a single designated nation that has unique and qualified capabilities to the entire or a portion of the

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 20 See chapter 1 section 2H the modular approach to medical support

force, with customer nations compensating the role specialist nation for the support provided. The support is coordinated and centrally managed by the NATO commander who determines how to best support the operational concept. Before designating a role specialist nation, legal advice should be sought regarding the implications of applicable international, contributing nations and host nation law and the appropriate instruments to give effect to the designation.

e. **Lead nation:** A lead nation for medical support assumes overall responsibility for coordinating and/or providing an agreed spectrum of medical support capabilities for a multinational force within a defined geographical area. Lead nations can invite other troop contributing nations to contribute with distinct capabilities. Administrative, legal and financial arrangements between consumers, the troop contributing nations and the lead nation, will be made on a bi-lateral basis.

f. **Framework nation:** Allies able to assume lead nation responsibilities can also provide a framework for a cluster of nations (framework grouping) to collectively and corporately develop, train, exercise, deploy and share their medical capabilities on a regular basis. The Framework Nation Concept (FNC) thereby provides a foundation for common development, funding and procurement of capabilities in line with the NATO level of ambition and alongside the NATO Defence Planning Process (NDPP).

1.70 A permanent structured cooperation between nations in the development, training and exercising of medical capabilities as well as collaborative planning, provision and procurement on a regular basis are the most effective approaches for pooling and sharing of medical resources and for ensuring the required responsiveness, interoperability and sustainability of medical support. Irrespective from the level of interaction, multinational medical support requires a lead nation responsible for:

- a. An organizational structure and command and control architecture that allows an effective and timely coordination of medical capabilities;
- b. an information network that can draw and share data from multiple national sources;
- c. educational programs ensuring common understanding and operational standards;

- d. a logistic organization based on national lines of support that is able to collectively serve a multinational population in theatre.

AJMEDP-9, the Allied Joint Medical Doctrine for Multinational Medical Support, provides more detailed information about medical support options in a multinational setting.

UK 1.28. The UK adopts a specific form of the lead nation approach that is deemed necessary to obviate complex factors relating to national sovereignty that often act as barriers to 'medical multinationality'. These barriers include differences in: nations' legislation and policy; medical education and regulation; professional roles; and clinical standards and governance. In addition, the UK believes that its approach promotes, achieves and maintains high levels of interoperability, which is an essential requirement.



UK 1.29. In the specific context of a multinational medical treatment facility, the UK (as the lead or TCN) currently understands the lead nation approach to mean:

- the lead nation is responsible for planning and executing the assigned medical mission;
- the lead nation has operational command or operational control authority over forces assigned from TCNs;
- the lead nation has responsibility for all appropriate capability lines of development;
- TCNs will provide personnel only (with the required specialist skills) to work within the lead nation construct;
- the assigned TCNs' forces must meet the lead nation's familiarisation training, exercise, rehearsal and certification requirements; and
- the authorities, responsibilities and requirements will be detailed in a bilateral agreement(s) between the lead nation and TCN(s).

H. The modular approach to medical support

1.71 Healthcare capabilities for operational medical support must correspond to the mission, the strength and composition of the force they support as well as to the environmental and health threat assessment. It might be necessary, to break out modules (like a damage control resuscitation and surgery capability) from medical treatment facilities for forward deployment, but also to (temporarily) enhance the capabilities and capacities of a medical treatment facility with additional capability modules, especially when:

- there are large numbers of personnel or a risk of high numbers of casualties;
- geographic, topographic, climatic or operational factors may limit medical evacuation to higher levels of the continuum of care;
- lines of communications are extended;
- the size and/or distribution of the force do not warrant the deployment of a fully equipped field hospital.

1.72 The modular approach is a conceptual idea to enhance the efficiency and adaptability of medical support. It is based on pooling and sharing of standardized capability modules. These modules can be rearranged, replaced, combined and interchanged according to mission needs.

1.73 Pooling and sharing may facilitate a more efficient utilization of scarce resources. It can improve operational flexibility and adaptability but requires mutual trust and the willingness of nations to grant or delegate the respective coordinating authority.

1.74 Modularity may allow providers to contribute single capability components instead of entire facilities or units. It enables grouping and regrouping of these capability components according to mission needs, but requires a high degree of interoperability, common understanding and a complex formal framework of agreements, reservations and caveats.

1.75 The modular approach could be an effective instrument to optimize operational medical support for the tasks it will be required to perform while avoiding unnecessary duplication of assets for a mission tailored the medical footprint to accomplish essential requirements. The benefits of this approach

are applicable across the spectrum of operations, including warfighting, deterrence, contingency operations, peacetime engagement, crisis response and humanitarian relief. The modular approach to medical support is guided by the principles depicted in figure 1-4.

1.76 The formation of a mission tailored multinational medical support system will always require formal agreements and arrangements between the participating nations and organizations detailing the respective tasks and responsibilities. The tasks and responsibilities may be different for each mission and even change during an operation, but in principle:

- a. One authority has to assume responsibility for each medical capability (asset, facility, unit) and to assure command, control, communication, computers, information (C4I), real life support, mobility, shelter and protection as well as the integration of all modules constituting the respective capability.
- b. One provider has to assume responsibility for each capability module, its performance and interoperability.
- c. All medical professionals within the combined joint end to end medical support system are responsible for the quality of practice they provide. They must ensure accordance and compliance with the legislation and policy of their mandating nation/organization at all times.

1.77 To support a common understanding how medical capabilities can be composed of modules, subordinate publications provide more information related to the modular approach.²¹

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 21 See AJMedP-1 Allied Joint Medical Planning Doctrine, Amedp-9.1 Allied Medical Doctrine for the Modular Approach for Multinational Medical Treatment Facilities, Amedp-9.2 Guidelines for a Multinational Medical Unit, Amedp-9.3 Credentialing for NATO Healthcare Professionals Assigned to Role 2/3 Multinational Medical Units, Amedp-1.7 Evaluation of NATO Medical Treatment Facilities – Capability Matrix, and Amedp-1.8 Evaluation of NATO Medical Treatment Facilities – Skills Matrix

UK 1.30. In principle, the UK continues to support the development of multinational approaches to provide medical support on Alliance operations and initiatives such as Smart Defence and the Framework Nations Concept. The UK believes that, to date, the only proven approach is the lead nation approach and that multinational approaches such as pooling and sharing, framework nations groupings and modular approaches remain conceptual in nature and unproven in application.



UK 1.31. The UK believes that the modular approach is useful for nations when defining the functional component parts of a MTF. In addition, the approach assists medical commanders and planners in identifying the interoperability requirements needed to successfully operate a group of modules as a whole capability.

UK 1.32. The UK also uses a modular approach to generate medical capability. This is based on predetermined groupings of personnel and equipment defined as standardised units (modules) for ease of management and greater flexibility of employment. Each module represents a functional capability that cannot be split and is selected in line with the mission specifics and operational requirements. Seven core, 14 enhancing and 13 complimentary modules have been defined and agreed with NATO. The seven core modules are:

- emergency area;
- initial surgery;
- diagnostics;
- post-operative;
- patient holding;
- C4I; and
- medical supply.

The 14 enhancing modules are:

- imagery;
- computerised tomography (CT);
- surgery;
- sterilisation;
- intensive care unit;
- internal medicine;
- ward (general);
- ward (isolation);

- laboratory;
- pharmacy;
- hospital management;
- primary health care;
- mental health; and
- dental.

The 13 complimentary modules are:

- additional clinical specialties;
- specialist surgery;
- oxygen production;
- preventative medicine;
- hyperbaric medicine;
- telemedicine;
- transient/response ambulances;
- magnetic resonance imaging;
- frozen blood products;
- animal care;
- mortuary;
- chemical, biological, radiological and nuclear treatment; and
- physiotherapy.

Principles for the modular approach to medical support

1. The modular approach builds on capability modules each with a capability-specific standard functionality and output.
2. Each module represents a functional capability which cannot be split, but personnel, training, equipment and supplies from different providers, nations and organizations, military or civilian, can be used to create a collective functional capability.
3. Modules must be able to cooperatively work in concert with other modules irrespective of their origin and assure compatibility with equipment & supplies, communication and information technology, power and water supply from other providers.
4. Personnel of modules assigned to a medical unit must be able to effectively integrate, overcome language barriers and cultural differences and operate with equipment and supplies from other modules or providers.
5. Limitations (technical as well as professional, legal, political or operational) must be clearly defined before the module is assigned to a medical unit.
6. Dependencies between modules must be considered. Specific modules cannot be deployed from a medical unit without adverse impact on other modules.
7. Modules are selected on the basis of capability requirements, operational requirements, mission characteristics and risks to form or enhance a medical capability.
8. The type and number of modules forming a medical capability must be adjustable to mission specifics and operational requirements.
9. Modules / contributions can be combined to form medical assets, facilities or units in different configurations, both structural and capability-based.
10. For each medical capability a standard set of modules defines the minimum capability requirement. All modules can be used to augment, enhance or to complement the standard minimum requirement defined for the respective capability according to mission needs and operational requirements.

Figure 1-4. Principles for the modular approach to medical support

I. Continuous improvement in healthcare support on operations (CIHSO)

1.78 Continuous improvement in healthcare support on operations assures, that the healthcare provided is meeting the standards expected, that challenges are acknowledged and reflected within a plan-refine-execute process and that experience is utilized to optimize healthcare support on operations by:

- a. **Risk management.** Identifying and reporting risks and issues to communicate them and take corrective or mitigating action where necessary.
- b. **Sharing best practice.** Providing the opportunity to learn from the experiences of others, to continually improve the standard of healthcare provided.
- c. **Sustaining a learning organization.** Facilitating the learning of its members and continuously transforms itself. This requires co-operation between individuals and groups, free and reliable communication, and a culture of trust.
- d. **Building capacity.** Long-term sustainability of medical support to operations essentially requires that capabilities and capacity within all the NATO nations and their partners are sustained and developed.

1.79 Identification, recording, collation and examination of medical lessons are important activities enabling the continuous improvement of healthcare support on operations and the shaping future medical support. On operations, all troop contributing nations should support the operational commander's medical staff in this activity in accordance with the lessons annex of the operation plan.²² In addition, all NATO member and partner nations are encouraged to communicate their medical lessons from deployments, operations or exercises to the NATO Centre of Excellence for Military Medicine (MILMED COE) Lessons Learned Data-Base.

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22 See also 2.1.1. c the MEDDIR

Health care governance



UK 1.33. Providing effective medical support is actively managed through a health care governance process. This is a system through which medical organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which clinical excellence will flourish. Basic components are a coherent approach to improving clinical effectiveness, applying repeated cycles of quality improvement, ongoing professional development and establishing effective processes for identifying and managing risk and addressing poor performance. Health care governance is fundamental to health service support since it governs how, and to what extent, medical capability is delivered. Health care governance demands a qualitative approach, based upon best practice and delivered through organisations' training, clinical environment and equipment. Quality improvement can only be achieved if systems and processes exist to collect and exploit health care information. Maintaining and improving standards must then be confirmed through a robust assurance process using the common assurance framework. Joint Service Publication 950, leaflet 5-1-4, *Defence Medical Services Regulator: Governance and Assurance in the Defence Medical Services* provides detailed direction.

Section 3 – Medical support related responsibilities and authorities

A. Transfer of authority

1.80 As the ultimate risk owners accountable for the health of their forces, nations retain the responsibility and legal duty of care at all times. With very few exceptions, all personnel and equipment required to conduct an operation are provided by the troop contributing nations. Nations will retain overall command of their own resources until the transfer of authority to the NATO commander. This transfer may include military or contracted medical support capabilities that nations nominate as centralized or theatre assets. Each case may be different and the specific rules regarding control authorities, responsibilities and funding need to be established early in the planning process and well before the transfer of authority. National caveats on the employment of contributions or units can significantly affect the medical

support concept for a NATO operation. Upon transfer of authority, the TCNs share the responsibility for the health and welfare of their forces with the commander.

UK 1.34. On NATO operations, NATO commanders share, together with the TCNs, responsibility for providing appropriate medical support to the forces they command. The UK accepts that NATO commanders will typically be granted coordinating authority over medical assets; however, the UK will retain absolute control over its own capabilities.



B. Medical support related responsibilities and authorities of the commander

1.81 Upon transfer of authority, the commander (and his staff) assume a number of responsibilities related to health and medical support. Those include but are not limited to:

- conducting a medical mission analysis and operations planning;
- Identifying and assessing risks and threats to the health of the force;
- implementing and controlling measures to mitigate identified health threats;
- identifying and evaluating the operational requirements for medical support;
- determining the medical capabilities required to accomplish the mission;
- determining the medical footprint and coverage in the area of operations taking into account operational risk and planning guidance such as the medical evacuation and treatment timelines agreed by the troop contributing nations;
- ensuring that medical support is provided in accordance with the principles, policies, standards, guidelines and directives agreed by the troop contributing nations.

1.82 As responsibility must be aligned with authority, the commander assigned responsibility for a specific operation will typically be granted coordinating authority over the medical capabilities, assets, facilities and units deployed to support the force. This coordinating authority is exercised during force generation and execution of a given operation and includes:

- to require reports on existing bi- and multilateral medical host nation support agreements;
- to establish new medical host nation support requirements, and initiate, coordinate, and conduct negotiations for them;
- to determine the placement and configuration of medical units, facilities and assets in the area of responsibility;
- to coordinate the operation of medical assets, capabilities and units in the area of responsibility;
- to coordinate and track medical treatment and transport of patients;
- to determine and implement the minimum standards of individual first aid, health and hygiene to be achieved within the theatre as defined by standardization agreements (STANAGs);
- to implement and oversee recommendations of the medical staff on issues like medical education and training, immunization, disease prevention and control;
- to establish epidemiological health surveillance of the force deployed;
- to direct environmental monitoring/occupational hygiene measures;
- to make arrangements for safe shelter, food, water and sanitation within the area of operations;
- to determine the medical rules of eligibility and the theatre patient return policy;
- to propose the use of chemical, biological, radiological nuclear medical counter-measures including the administration of prophylactics;

- to establish a combined joint medical (CJMED) staff organization.²³

1.83 The combined joint medical staff (with the medical advisor / medical director in lead) is responsible to identify and coordinate the medical support services and capabilities required for the mission. The social and spiritual dimension of health are not considered a health service or medical support responsibility. The combined joint medical staff provides the medical contribution to the operations plan and exercises the coordinating authority for medical support in cooperation with all relevant stakeholders on behalf of the commander.

1.84 Preventive force health protection measures commence well in advance of the operation and healthcare provision may continue long after the subsequent redeployment to home base locations. This extension beyond the limits of the operational commander's responsibility, necessitates close coordination between Allied Command Operations' (ACOs') medical advisor at the military strategic level, with the designated medical director for the area of operations.

UK 1.35. The UK retains the option to provide medical support to its forces through national effort only. As a TCN, the UK retains absolute control over its own capabilities.



C. Medical support related responsibilities and authorities of the nations

1.85 The nations are responsible for all necessary legal arrangements such as memoranda of understanding, technical agreements and status of forces agreements necessary to ensure appropriate health care and medical support to their military personnel. Nations are responsible for facilitating the overall medical support plan, for establishing an interface with the NATO medical organization and for continuously keeping contact with the NATO combined joint medical staff, even if they support their forces through a purely national medical support system. Nations providing medical contributions are responsible for:

- Coherence and compliance of their national clinical standards, practices and procedures with relevant agreed common policies and guidelines;

.....
23 See also 1.2.1 d CJMED

- Availability, readiness, resilience and sustainability of their contributions;
- Interoperability, connectivity and adaptability of their contributions;
- Evaluation of their medical support capabilities prior to deployment.²⁴

1.86 Nations contributing medical capabilities must ensure, the following:

- a. 'Clinical need' is the principal factor governing the priority, timing and means of medical care and patient evacuation.
- b. The standard of medical care meets their national requirements.
- c. The service they provide is compliant with the medical rules of eligibility defined for the respective operation and with relevant domestic, host nation and international law.
- d. The required capabilities are provided and maintained throughout the period of deployment as agreed in the combined joint statement of requirements (CJSOR), the theatre capability statement of requirements (TCSOR) and transfer of authority even if they are composed of contributions from different providers.
- e. Their medical support activities are coordinated with all other theatre medical support activities through the combined joint medical staff.

D. Medical responsibilities of the NATO strategic commands

1.87 The NATO strategic commands, Allied Command Operations (ACO) and Allied Command Transformation (ACT) are responsible for:

- a. **Defence Planning.** ACT provides guidance on the military medical aspects of the defence planning process. ACO leads the 'gap' analysis based on the offers of the nations, scenario outcomes, civil emergency planning and nuclear planning.

²⁴ Medical support capabilities should be evaluated and certified by the TCN, ACO will only certify the force as a whole

b. **Command and control of forces.** Command and control of forces, including operations planning, is the responsibility of ACO. For force generation, ACO in consultation with the nations allocates resources, including funding, to support the NATO commander's operational plan. ACO may assist in the coordination of medical support provision to troop contributing nations for specific national requirements, especially if these are identified before or during the execution of the operation. Supreme Headquarters Allied Powers Europe (SHAPE) Joint Medical Division (JMED) provides medical cross-cutting authority, direction and sets the requirement at the strategic level for all aspects of medical support in accordance with MC 326/3 to support SACEUR in exercising his command functions. SHAPE JMED provides medical direction and guidance to NATO operational level Headquarters Medical Advisors and their medical staff including deployed medical units. SHAPE JMED supports all SHAPE divisions to facilitate medical input to strategic planning, policy and capability development, force generation, resource and asset management and implementation of Supreme Allied Commander Europe's (SACEUR's) Annual Guidance on Education, Training, Exercises and Evaluation (SAGE), as well as supporting and advising the NATO Headquarters. From baseline activities and current operations to times of crisis and conflict, SHAPE JMED provides coordination of all operational medical functions at the strategic level including 360-degree medical oversight and situational awareness. It assesses and assures, in liaison with the troop contributing nations, the organization and provision of medical support. As the medical requirements authority and capability user authority, SHAPE JMED supports the development of medical capabilities and training functions. It represents SACEUR's medical interests across the breadth of NATO and conducts appropriate liaison with external and non-NATO military and civilian organizations to further develop medical Partnerships and civil-military interaction. ACOS JMED is also the Special Advisor to the Commander/Command group with direct access to provide medical advice ensuring timely intervention in all health and medical support matters that require their attention, decision or action.

c. **Joint and combined medical concepts and doctrine.** ACT is responsible for NATO joint medical concepts and doctrine and for assisting Partner nations in military medical concept development. ACT leads the NATO medical lessons process, supported by the Joint Analysis and Lessons Learned Centre (JALLC). The Centre of

Excellence for Military Medicine MILMED COE collects observations and coordinates the processing. Lessons identified are to be processed by research, innovation and experimentation to support medical concepts, doctrine and capability development enabling ACO to develop strategic medical directives and procedures for operations.

d. **Force health protection.** ACO provides medical intelligence and information as well as force health protection advice for operations planning, is the senior user and defines the operational user requirements. ACT contributes the respective long-term trend-analysis and the development of concepts and capabilities.

e. **Medical communication and information systems (CIS).** ACT guides NATO's medical communication and information systems related strategy, concepts, capabilities and architecture whilst ACO is responsible for operations planning and for identifying the medical communication and information systems shortfalls.

E. Medical support related responsibilities of joint forces commands (JFCs), combined joint task forces (CJTF) and the standing joint logistic support group (SJLSG) headquarters

1.88 At the operational level Joint Forces Commands, military campaigns are planned, conducted, sequenced, directed, assessed and sustained following strategic guidance. Joint force commanders assume the following responsibilities:

a. **Medical contingent planning.** Operational level medical contingent planning is conducted concurrently alongside strategic medical planning. Constant dialogue between ACO and the JFC/CJTF medical staff ensures that the medical planning efforts are complementary.

b. **Identification of medical support requirements.** The mission analysis includes the identification of medical support requirements and should consider medical HNS or local resources and the creation of a Status of Forces Agreement (SOFA) for the provision of medical support capabilities.

c. **Medical coordination.** Based on the medical planning process and associated planning conferences, the operational level of command

details the medical command and control organization and, on transfer of authority, coordinates all aspects of medical support.

d. **Assessment of medical capabilities.** The JFC/CJTF commander is responsible for the assessment of all troop contributing nation's medical support capabilities during deployment.

e. **Health surveillance.** Evaluation of the health status of the force during deployment is a key responsibility of the operational JFC/CJTF commander. The strategic commands will contribute through development of mission specific assessment criteria and, in conjunction with the nations, will execute epidemiological surveillance programs and other evaluation programs of the health status of deployed troops.

1.89 The JFC medical staff divisions are responsible for the medical support of their respective Joint Operations Area. The Medical Advisor and Medical Director for a theatre of operations is located at the JFC/CJTF HQ. Based on clinical timelines and the continuum of care, the JFC/CJTF and the Rear Area Operations Command Joint Medical Advisers are responsible for the operations planning of medical support and the theatre assets for components in the assigned Joint Operations Area. This principle ensures that the time-critical medical planning cycle at the operational level has direct access to the J2, J3 and J5 staff domains.

1.90 The SJLSG HQ will provide the cross-cutting functional coherence between commands and nations, to conduct enduring preparatory and enabling activity in order to facilitate rapid reinforcement and sustainment. This role is continuous in peacetime where there are no assigned Joint Operations Areas, and during periods of operation to ensure that while one or more Joint Force Commands, Joint Task Forces or the Rear Area Operations Command execute specific operations, that those operations and the remainder of SACEUR's Area of Responsibility remain supported, coherent and enabled. For coordination of host nation support, and reception, staging and onward movement deployment activities for the SJLSG there is a requirement to provide appropriate medical support and advice. The SJLSG with the JLSG would be allocated the required medical resources in line with their tasks and functions.

F. Medical responsibilities of component commands

1.91 Component commands (CCs)²⁵ provide specific component orientated planning for different operational options as directed by the joint commander. The component command's medical staff is responsible for planning and coordination of Military Health Care (MHC) and medical evacuation (MEDEVAC) within the component command's area of responsibility, coordination of strategic medical evacuation with the theatre patient evacuation and coordination cell and medical resupply. Specific personnel of the component commands may augment the joint headquarters' medical staff.

.....
²⁵ This is applicable to a Joint Logistic Support Group (JLSG) as well, if such an entity is deployed in a mission (see STANAG 2230 AJP-4.6 Allied Joint Doctrine for the Joint Logistic Support Group).

Key points



- Health and medical support are key force enablers.
- **UK.** Health service support to operations is designed to be joint from the outset, providing a continuous, seamless, escalatory increase in clinical care from point of injury/illness.
- Medical support should always comply with best medical practice and the rules, laws and requirements set out in national systems or by international organisations.
- Commanders at all levels have the responsibility to ensure the protection of medical assets, and that the Red Cross, or any other recognised emblems are respected and not used improperly.
- Health care capabilities for operational medical support must correspond to the mission, the strength and composition of the force they support as well as to the environmental and health threat assessment.

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UK Annex 1A



International humanitarian law considerations

1A

UK 1A.1. This annex introduces some of the international humanitarian law considerations that can affect the planning of UK health service support to joint operations. It is not intended to be all encompassing or to replace the advice from the Ministry of Defence (MOD) or Service legal staffs, which should always be sought on individual issues. Instead, it lays down some enduring principles covering international humanitarian law on operations, draws attention to the breadth of legal issues affecting the medical function, and considers the impact of non-state actors on delivering health service support to operations. It should be read alongside Joint Doctrine Publication 1-10, *Captured Persons*, which provides additional information on many of the areas discussed in this annex.

UK 1A.2. International humanitarian law exists to minimise the effects of conflict on those not, or no longer, directly involved in the conduct of hostilities, as well as to regulate conduct between combatants themselves. International humanitarian law places obligations on our UK Armed Forces to take account of all protected persons, including the wounded and sick, when planning and conducting operations during an international armed conflict. Although different legal obligations under international humanitarian law may apply, depending upon the nature of the conflict (for example, whether it is an international armed conflict or a non-international armed conflict), it is MOD policy that similar obligations and protections should be applied, where appropriate, to the planning and conduct of all operations where hostilities are envisaged. For example, the full range of the 1949 Geneva Conventions will not apply, as a matter of law, in a counter-insurgency operation, but may still be applied as a matter of UK policy. While a detailed discussion of these issues is beyond the scope of this publication, medical specialists engaged in planning operations should recognise that the 1949 Geneva Conventions and their 1977 Additional Protocols influence the planning and conduct of all operations.

UK 1A.3. There is guidance in Joint Service Publication (JSP) 383, *Manual of the Law of Armed Conflict*, Chapter 7 in particular, on the legal definitions of medical units, personnel and transport, the protection afforded by the law to those entities, the general protection afforded to the conduct of medical duties, the permitted functions of medical units, the duties of occupying powers to meet the medical needs of the civilian population, rules for the protection of medical transport, and identification of medical units, personnel and transport. Those responsible for planning the conduct and command of medical functions and any related activities in joint operations should be familiar with that guidance. Legal advice should invariably be sought to resolve cases of doubt.

UK 1A.4. Further to existing guidance in JSP 383 and wider international humanitarian law, this annex seeks to provide guidance on the principal lessons highlighted during recent operations. The challenge for planning staffs is reconciling the requirement to abide by international humanitarian law and UK policy while mitigating the impact of non-state actors who may not recognise the protection afforded to medical personnel in international humanitarian law. It should be noted that early consultation with J1/J9 planning staffs and legal advisers can assist in identifying how, and where, international humanitarian law is likely to impact, and how to address any issues most effectively.

UK 1A.5. **The general obligation to treat others.** While the specific obligations under international humanitarian law may vary, dependent upon the nature of the conflict (namely, whether it is an international armed conflict or a non-international armed conflict), our UK Armed Forces are under a continuous obligation to respect and protect wounded or sick persons, whether military or civilian, who are in need of medical assistance and who refrain from engaging in hostilities. They shall not wilfully be left without medical care or assistance. Only urgent medical reasons will authorise priority in order of treatment to be administered. They shall be treated humanely and shall receive, to the fullest extent practicable and with the least possible delay, the medical care and attention required by their condition. There shall be no discrimination among them founded on any grounds other than medical ones. This may, of course, include not only adversaries but the civilian population, and careful consideration should be given to calculating the likely numbers of casualties in any operation. Liaison with J2/J3 and operational analysts, while of assistance, cannot be definitive and planners should recognise that the demands on medical staff may vary considerably depending on the phase and success of the operation. The ability to surge, re-role and recover medical support will be key and the resources to support this range of activity must be identified and assigned at an early stage.

UK 1A.6. **The specific obligation to treat captured persons, including prisoners of war, internees and detainees.** Captured persons are entitled to certain basic standards of humane treatment. Once in the hands of our Armed Forces, captured persons are to be treated strictly according to their medical need. This protection extends to all those who are interned or detained and calls for planning and resources to be committed to their initial care. Complications arise when it is proposed, for reasons of imperative medical care, to transfer captured patients to a country outside the territory where they were captured. As a rule, while prisoners of war may be directly repatriated or accommodated in neutral countries for medical reasons or to receive medical treatment (1949 Geneva Convention III) (subject to legal and policy advice in each case), internees and detainees may not. In all cases, J9 legal advice must be sought before any transfer takes place.

UK 1A.7. **The nature of treatment.** The nature and extent of the medical treatment administered to individuals will be governed primarily by medical judgement and ethics, within the constraints of our Armed Forces' medical policy. In addition, international humanitarian law places certain obligations on UK medical staff. Medical procedures that are not indicated by the patient's state of health and are not consistent with generally accepted medical standards, are not allowed. Experiments on captured persons and the sick and wounded are also strictly forbidden under international humanitarian law as are unjustified medical interference on patients who are not in a position to give free and genuine consent. A patient may refuse surgical treatment, but emergency surgery to save a life does not require the patient's consent.

UK 1A.8. **Protected status of medical units.** International humanitarian law accords special protection to medical units and the personnel serving in them solely in a medical capacity. The 1949 Geneva Conventions describes medical units as establishments and other units, whether military or civilian, organised for medical purposes, namely the search for, collection, transportation, diagnosis or treatment (including first aid treatment) of the wounded, sick or shipwrecked or for the prevention of disease. They include hospitals, blood transfusion centres, preventive medicine centres, medical depots and stores. Medical units are to be respected and protected at all times and are not to be made the object of attack. They may be fixed or mobile, permanent or temporary, and on land, sea or in the air. Medical units, personnel and transport must not be used for non-medical purposes or they will lose their protected status as non-combatants. Medical units must not be used to shield military objectives from attack and, where possible, should be situated so that attacks on military objectives do not imperil their safety. Improper use

of the protective emblems identifying medical units, transport or personnel to kill or injure the enemy, or that result in death or serious injury, is a war crime of perfidy. The protective emblems must not be used in a way that falsely suggests protected status to avoid attack by an enemy.

UK 1A.9. **Protected status of medical personnel.** The term medical personnel covers those persons assigned exclusively to the medical purposes detailed above, and/or those who carry out the administration of medical units or operate medical transport. Such assignments may be permanent or temporary but must be exclusive for their duration. The 1949 Geneva Conventions definition of medical personnel includes doctors, dentists and nurses, and a range of specialists, technicians, maintenance staff, drivers, cooks and administrators attached to medical units or medical transport units. Medical personnel will be identifiable by wearing the Red Cross, Red Crescent or Red Crystal emblem.

UK 1A.10. **Retained personnel.** Medical personnel should be respected and protected in all circumstances and, if captured, they should be retained only to the extent necessary to tend to the health of prisoners of war. On capture, they will not be categorised as prisoners of war but they shall be afforded the same benefits and protection. They shall be granted all facilities necessary to provide for the medical care of captured persons. When there is no longer a requirement to retain the medical personnel, they should be returned to their own side. However, while captured, they are to continue to carry out, within their professional ethics, their medical duties on captured persons.

UK 1A.11. **Protected status of medical vessels, vehicles and aircraft.** The general rule is that medical vessels, craft and vehicles are to be respected and protected at all times. International law recognises that such protection is only effective if the medical transport can be recognised as such. Thus, in the case of hospital ships (vessels built, converted or equipped specially and solely with a view to assisting either military and/or civilian wounded, sick and shipwrecked and to treating them and transporting them) or craft, they should be white and marked with the distinctive emblem. Emblems should be as large as possible and be placed to maximise visibility.

Medical transport

UK 1A.12. Information about a hospital ship may (and, in normal circumstances, should) be declared, including its name, description, time of sailing, course, estimated speed and so on. Negotiations between belligerents

may settle on a protected zone for hospital ships to use where no military operations will take place. The protecting powers may assist in negotiating such an agreement. Information to ease identification of medical ships may also be transferred between belligerents.

UK 1A.13. Medical aircraft shall also be respected and protected. If such aircraft are being operated in areas not controlled by the enemy, respect and protection do not depend on specific agreements, but notification to the other side of flight arrangements may make the flights safer.

UK 1A.14. Prior agreement with the enemy becomes essential in the combat zone, particularly in those areas where control is not established. Without that agreement, medical aircraft operate at their own risk. If recognised as a medical aircraft, they should be respected. Protecting such aircraft continues when flying over enemy-controlled territory, provided prior agreement has been obtained. If no agreement is obtained, or the aircraft has to deviate from an agreement, the aircraft should identify itself and explain the solely medical purpose of the flight and the reason for any deviation from the agreement.

UK 1A.15. Medical aircraft flying over areas controlled by the enemy can be ordered to land for inspection. If its medical status and well-meaning are supported by the inspection, it shall be permitted to resume its journey. If the inspection reveals that it is not a medical aircraft, has flown without or in breach of an agreement, or has broken the rules, it may be seized.

UK 1A.16. Medical aircraft may not be used to acquire a military advantage, nor to collect or transmit intelligence data and cannot carry associated equipment. Communications, navigation and identification equipment is permitted. They must be unarmed (save for small arms taken from the wounded and light individual weapons to defend the personnel on board).

Permitted functions of medical units, personnel and ambulances

UK 1A.17. Medical units may be protected by armed guards or pickets but, again, those guards may only act for the self-defence of medical personnel and patients in their care. Medical personnel must not be used to support the collective protection of non-medical facilities and assets. Commanders at all levels have a responsibility to ensure that the protected status of medical personnel is maintained.

UK 1A.18. Medical personnel are permitted to carry light individual weapons for the purpose of self-defence or to protect those in their charge if they are subjected to unlawful attacks. Light individual weapons are those that can be handled by one person and primarily intended for personal protection. Examples of such are sub-machine guns, self-loading rifles and handguns. Carrying, and lawfully using, such weapons (in self-defence or defending those in their charge) will not cause the loss of their protected status and does not amount to a misuse of the protected emblem of the Red Cross. Small arms and ammunition taken from the wounded and sick may be temporarily stored in medical units until they can be handed over to the appropriate authorities.

UK 1A.19. The Red Cross emblem offers no finite guarantee of protection against non-state actors. Where a threat from such groups exists, commanders are empowered to authorise the removal of the Red Cross emblem, subject to legal and policy advice. However, medical personnel still retain their status as non-combatants and therefore remain restricted in the types of weapons that they can use. It is simply their easy identification that has been removed.

UK 1A.20. Signatory nations to the 1949 Geneva Conventions whose ambulances display the Red Cross (or another recognised distinctive emblem) are protected under the convention from attack by the forces of other signatory states. Use of mounted weapon systems for self-protection is a situationally dependent decision where legal advice should first be sought. The assignment of an ambulance to medical purposes may be permanent or temporary but must be exclusive for the duration of its use as such.

UK 1A.21. Where a threat exists from non-state actors, commanders are empowered, subject to legal and policy advice, to remove the Red Cross emblem and to fit a mounted weapon system for the protection of that platform and those within their care. However, such a platform will no longer be recognisable as an ambulance and it, and its occupants, will lose the protection that the distinctive emblem would otherwise confer. Under no circumstances may the Red Cross emblem be displayed on an ambulance platform at the same time as a weapon system is mounted on it. The provision of such weapon systems would only be for defensive purposes, and must be reflected in training for medical personnel.

Recognised emblems

UK 1A.22. Great care must be taken to ensure that the Red Cross, the Red Crescent or the Red Crystal (illustrated at UK Figure 1A.1) or any other recognised distinctive emblems are not used improperly. The Red Cross flag must not be used to cover vehicles used for transporting munitions or other non-medical stores. A hospital train must not be used to facilitate the escape of combatants. Using a building protected by the Red Cross as a firing position is prohibited. This does not infringe the right of personnel to protect themselves or their patients. Vehicles used for transporting the wounded, sick and medical equipment may display the protective emblems and are entitled to protection. Non-medical supplies may not be carried in a vehicle using the protected emblem.

1A



UK Figure 1A.1 – Protective emblems



Chapter 2

This chapter describes the different components of medical support, their characteristics and relationships, structure and organization. These components are:

Section 1 – Command and control	2-7
Section 2 – Communications and information management	2-15
Section 3 – Force health protection (FHP)	2-20
Section 4 – Military health care (MHC)	2-21
Section 5 – Medical evacuation (MEDEVAC)	2-30
Section 6 – Medical logistics.	2-34

“

The **achievement** of the **best** possible clinical outcomes for our patients was the **product of synergy** between the chain of command, medical organisation and excellent clinical practice.

”

Lessons from the organisation of the UK medical services deployed in support of Operation TELIC (Iraq) and Operation HERRICK (Afghanistan)

Bricknell MCM, Nadin M
BMJ Military Health, 2017

Chapter 2

Organization of medical support

UK 2.1. The ten instruments of military medical care is a model adopted from previous iterations of Allied medical support doctrine that form the UK components of deployed health care. They are a UK adaptation of the Alliance's seven capabilities of operational care (incorporated as a-g below). Still considered relevant, these are the essential capabilities needed to deliver effective health service support on operations. The Defence Medical Services (DMS) must be able to generate medical force elements against these instruments, mission-tailored to the scale and complexity of a specific operation. The ten instruments of military medical care are described below.



- a. **Medical command, control, communication, computers and information.** Medical command, control, communication, computers and information (C4I) provides the authority, processes, communications architecture and information management resources employed in managing the Defence medical operational capability system.
- b. **Force health protection.** Force health protection consists of actions taken to counter the debilitating effects of the environment, disease and selected special weapon systems through preventive measures for personnel, systems and operational formations. It considers force preparation measures, environmental health advice, in-theatre preventive measures, post-exposure measures and rehabilitating the force. Force health protection must include competent medical advice in force health protection for chemical, biological, radiological and nuclear (CBRN) threats. Force health protection incorporates medical intelligence (MEDINT). MEDINT is intelligence derived from medical, bioscientific, epidemiological, environmental and other information related to human or animal health. The UK also uses MEDINT to contribute to functional campaign planning by understanding host nation and enemy capabilities.

- c. **Pre-hospital emergency care.** Pre-hospital emergency care is the system of emergency care provided to a casualty (by individuals or teams) from first clinical intervention at point of injury through to reception of the patient at deployed hospital care (DHC). Pre-hospital emergency care comprises the following.
- (1) **Care under fire.** Immediate life-saving interventions made in the hot zone while the patient is being extracted. Care under fire is the basis of all first aid training taught to our Armed Forces.
 - (2) **Tactical field care.** Those interventions needed to save/stabilise life and prepare the casualty for medical evacuation. It can be provided by any extended-trained individual (for example, team medic).
 - (3) **Enhanced field care.** Emergency clinical care usually provided by a clinical team in a more permissive environment using battlefield advanced trauma life support, CBRN emergency medical treatment and other progressive clinical techniques.
 - (4) **Prolonged care.** The application of extra techniques to sustain the casualty if any component of the 10.1.2(2)+2 medical planning guideline is likely to be exceeded. Delivering prolonged care will require medical techniques, skills and capabilities required to hold a patient for a protracted period of time. Prolonged care includes the sub-categories: prolonged field care (covering those techniques suitable for use in the pre-hospital emergency care clinical phase); and prolonged hospital care (covering those techniques suitable for use in the DHC clinical phase).
- d. **Primary health care.** Primary health care includes those comprehensive community medical services that contribute to protecting, maintaining and restoring the health of the Defence population at risk.
- e. **Deployed hospital care.** Deployed hospital care includes those clinical services provided by clinical personnel usually employed within hospitals. Access to DHC within the 10.1.2(2)+2

medical planning guideline is an essential component of the Operational Patient Care Pathway (OPCP). Where time/distance precludes providing a single DHC facility, it may be echeloned into DHC facilities illustrated as forward and rear facilities. DHC forward facilities are likely to be mobile enough to provide resuscitation and damage control surgery within two hours. DHC rear facilities in the land environment are likely to be static with more mobile assets in the maritime environment. DHC will be focused on providing damage control and other necessary surgery, and the following specific clinical concepts.

(1) **Enhanced diagnostics.** Enhanced diagnostics are those clinical support activities (for example, computerised tomography (CT), interventional radiology and specialist laboratory support including biochemistry, haematology and microbiology testing) that enable specific clinical therapies, which are additional to generic stabilising therapies, to address the cause of illness or injury.

(2) **Mission-specific clinical capabilities.** Mission-specific clinical capabilities are those clinical and clinical support capabilities that are mission-tailored for each specific operation dependent on the threat and medical rules of eligibility. For example, care of captured personnel, emergency care for paediatric patients, tropical medicine or genito-urinary medicine.

f. **Medical evacuation.** Medical evacuation describes moving casualties under medical supervision in a designated transport platform equipped for role. The patient evacuation coordination cell (PECC) is responsible for ensuring the right patient is collected from the right pick-up point, transported to the right destination in the right platform, with the right medical escort in the right time frame. There are three categories of medical evacuation.

(1) Forward medical evacuation moves patients from point of injury/illness to DHC, under medical supervision in a designated transport platform equipped for role. Moving casualties in a non-designated vehicle without a medical escort is termed casualty evacuation (CASEVAC).

(2) Tactical medical evacuation is moving patients between DHC facilities within a theatre of operations.

(3) Strategic medical evacuation moves patients from a theatre of operations to (usually) Role 4 in the UK.

g. **Medical logistics.** Medical logistics is the process of procuring, storing, moving, distributing, maintaining and positioning medical material and pharmaceuticals (including blood, blood components and medical gases) to provide effective medical support. An assured supply chain is vital; this could be provided through organic or contracted solutions, partner nations or host nation support.

h. **Firm base.** The firm base includes those capabilities that provide health service support to the Defence population at risk within the strategic base, less the Royal Centre for Defence Medicine and Defence National Rehabilitation Centre, which are Role 4 operational. The firm base plays a vital role in maintaining business as usual including:

- force generation of personnel to deploy on operations;
- maintaining force elements at readiness; and
- supporting resilience in the UK.

i. **The medical contribution to security and stabilisation.** The medical contribution to security and stabilisation is where health service support can play a definitive role in delivering operational effect as well as the OPCP. These include humanitarian assistance and disaster relief operations, security sector reform and civilian health sector development.

j. **Research and innovation.** Research and innovation develops practical applications that can contribute to sustaining health throughout the operational health care cycle. This is delivered through the Research and Clinical Innovation Department and the Ministry of Defence (MOD) core science and technology programme.

Section 1 – Command and control

2.1 Command and control of forces, including medical forces, is determined by the responsibility and authority granted to NATO commanders upon transfer of authority. Authorities and responsibilities related to medical support as well as the respective command and control architecture must be clearly established in the relevant operation plans (OPLANs). The layers of command should be kept as few as possible and the relationships and responsibilities vertically and horizontally clearly defined, delineated, fully understood and agreed upon. For appropriate planning, coordinating, directing, supporting and auditing of all medical support related functions, commanders need the support of a dedicated medical staff integral to the combined joint operations staff and sufficient in number, training and experience.

A. The headquarters' medical staff architecture

2.2 **The medical advisor (MEDAD).** The medical advisor is part of the command group or special advisory group and responsible for providing appropriate medical advice to the commander, ensuring that the commander and the commander's staff are aware of all medical implications their actions and decisions might have as well as of any health related issues affecting the force or the operation. Direct access of the MEDAD to the commander is essential to assure, that all health and medical support related matters requiring the commander's attention, decision or action, can be addressed in time and based on professional expertise.²⁶

2.3 **The medical director (MEDDIR).** The medical director is the head of the medical organization in a formation or a theatre of operations and thus delegated responsibility for the implementation of medical policy and plans, and coordinating authority for medical support within the commander's area of responsibility. Usually the medical advisor to the operational level commander will be appointed as the medical director of the combined joint task force. The medical director will report directly to the combined joint task force commander. On behalf of the commander, the medical director will determine the appropriate medical requirements for the medical support system to all forces participating in the operation.

2.4 **The combined joint medical branch (JMED).** The medical staff supporting the medical advisor and medical director to effectively fulfil

.....
26 The social and spiritual dimension of health is not considered a health service or medical support responsibility.

their role, should be adequate in size, equipment, expertise and experience and fully integrated into the headquarter staff structure. The combined joint headquarters' medical branch should be capable of overseeing all required medical functions and have clear and tailored authority to undertake appropriate and timely actions, including medical planning.

2.5 The headquarters' medical staff should be involved in the staff and operations planning processes and appropriately represented on reconnaissance teams and not be embedded in other joint staff cells. If medical staff are separated from the commander, they should follow technical directions given by the medical advisor.

2.6 JMED acts as the executing body of the medical organization supporting joint operations. In order to effectively conduct its tasks, the JMED branch requires the following functions to affect all medical support tasks:

- Medical Director (Chief JMED)
- Medical plans / Deputy Medical Director
- Medical operations / Deputy Medical Director (alternatively)²⁷
- Patient evacuation coordination
- Force health protection
- Health advice/liaison for host nation health sector development
- Medical logistics
- Administrative assistance and information management

B. Interface between medical and other staff and support functions

2.7 The combined Joint medical staff (JMED) will routinely work in close cooperation with combined joint staff functions responsible for personnel, intelligence, plans, operations, logistics, civil military cooperation (CIMIC), legal, military engineering (MILENG) as well as communication and information support. Together they execute a wide range of medical support planning,

.....
²⁷ Med plans and ops may be combined to 'Chief Med Ops and Plans (CJMED 3/5) & Deputy MEDDIR

surveillance, coordination, and direct support functions. The list is neither exhaustive nor definitive, vertical as well as horizontal coordination and collaboration is key.

2.8 J1 – Personnel and administration. There is a considerable interface between the functions of medical and personnel related support, beginning during the initial planning stages and even continuing when an operation has finished. The working relationship between medical and personnel staffs must be well developed and detailed in medical plans. Areas which might necessitate interaction between the personnel and administration staff (J1) and the medical staff (JMED) include but are not limited to:

- Headquarter medical staff manning and qualifications;
- personnel health and fitness standards and assessment;
- patient tracking;
- casualty reporting;
- personnel welfare;
- development of medical requirements for NATO staff members and NATO civilians prior to deployment.

2.9 J2 – Intelligence.²⁸ Intelligence is the product resulting from the processing (collection and analysis) of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The intelligence (J2) staff is responsible for all intelligence activities. Medical expertise could play a significant role in intelligence preparation and force protection, in particular for the identification of health threats to the force and of health care providers in the area of operations. Medical intelligence (MEDINT) remains a permanent task of the medical staff in the theatre of operations. Information collected will be mutually shared with the intelligence staff, respecting medical confidentiality, privacy rights and the Law of Armed Conflict/Law of War or recognized law pertaining to human rights. Medical intelligence must not be used to exploit or take advantage of medical vulnerabilities of any party.

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 28 See also Para 3.3.ff Medical Intelligence

2.10 **J3 – Operations.** The Operations (J3) staff acts as the focal point through which the commander directs the conduct of an operation. To ensure unity of effort and the most effective use of resources in support of immediate and planned operations, the operations staff usually establishes a joint operations centre (JOC) which should include a permanent theatre patient evacuation coordination cell (PECC). The operations staff may comprise sections or cells that cover maritime, land and air operations as well as other functional areas including medical support. Force protection is a key role of the operations staff, and they coordinate with other relevant staff, including the medical staff, in their conduct of the force protection programme, its objectives and initiatives. Planning and coordination of medical services and capabilities is a medical responsibility, while integrating medical support into the operations environment and implementing/enforcing recommended preventive medicine policies are part of force protection and led by the operations staff. At any time during operations planning and execution the operations staff will determine the response to any situation which may impact upon medical support to the force, and will also make decisions over allocation of scarce resources. The medical staff is responsible for ensuring that the medical implications of the courses of action (COAs) presented by the operations staff are carefully considered. Mission-tailored medical support must reflect the operational requirements. The medical staff contributes to critical incident management, mass casualty management and disaster response.²⁹ Disaster response and critical incident planning (including mass casualty planning) and execution will be led by the operations staff.

2.11 **J4 – Logistics.** The Logistics (J4) staff are responsible for assessing logistic support required to achieve the commander's campaign objectives, and for ensuring that these support requirements are met throughout the campaign. In addition to this assessment, logistics staff (J4) will also coordinate the overall logistic effort. The responsibility for planning and executing medical logistics is shared by the medical and logistics staff. Medical personnel are responsible for the identification of the requirement, the specification and quantity of medical material and pharmaceuticals. They must ensure that all medical supplies fulfil the required standards of good distribution practice (GDP) and will advise on the prioritization of delivery. Logistic personnel are responsible for coordinating the management of medical materiel and pharmaceuticals within the overall logistic plan. Medical and logistic personnel will have a shared responsibility for the tracking of medical materiel and pharmaceuticals from sourcing to final disposition. Coordination between medical and logistics staff is required to ensure consistency and close

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29 See also chapter 3 section 10 Medical Critical Incident Management

cooperation between logistic and medical missions. Timely exchange of information, flexibility in decision making, teamwork and mutual trust are essential in these relationships. Areas requiring a close cooperation between logistic and medical staffs include:

- development of the support concept and plan for the operation;
- creation of the statement of requirements (SOR) and the sustainability statement;
- resourcing the plan;
- delineation of logistics and medical Command and control architecture;
- deployment, employment and redeployment of medical treatment facilities;
- coordination of logistic aspects of aeromedical evacuation (AE); planning and execution being coordinated with the air operations staff (J3 Air);
- coordination of food and water logistics, accommodation and waste management;
- de-confliction of transport assets which might, mounted with medical equipment and personnel, be used for medical evacuation;
- handling of deceased;³⁰
- coordination of movement and transport into and within theatre using the main support routes.

UK 2.2. The UK designates medical materiel and consumables as Class II commodity rather than the NATO classification of Class VIII. In addition, the UK views provision and supply of medical materiel as primarily a logistics function supported by medical.



.....
 30 The handling of deceased is not a medical task, but medical personnel can support on request, (e.g. conducting post mortals to identify a disease causing death)

2.12 **J5 – Plans.** The primary function of the Plans (J5) staff is to coordinate and consolidate planning input from all key staff elements, including medical. It also promulgates the commander's decisions on the courses of action for the campaign through planning directives, operation plans (OPLANs) and contingency plans. Medical staff will provide medical input to the commander's operations plan (OPLAN) via the plans and policy (J5) staff. Medical staff should be represented in operations planning groups to ensure that health and medical support requirements are correctly assessed, planned, resourced and coordinated. Casualty estimates are a key factor to determine medical capability and capacity requirements for a given operation.³¹ Casualty rate estimation is a cross-functional task as a large number of factors must be taken into account. For the estimation of battle casualty (BC) rates the plans staff (J5) is in lead while the personnel and administration staff (J1), the intelligence staff (J2), the operations staff (J3), logistics staff (J4), and medical staff (JMED) contribute in close cooperation.³² For the estimation of diseases and non-battle injury (DNBI) rates, the medical staff (JMED) is in lead.

2.13 **J6 – Communication and Information systems.**³³ The primary mission of the Communication and Information Systems (J6) staff is to provide reliable and secure communication and information support. Flexibility, reliability, security, network resilience and interoperability are crucial, particularly regarding the rapidly evolving threats of cyberspace warfare. Medical support coordination, patient flow management, patient tracking, telemedicine and medical logistics require large data transfer capacities. In conjunction, the medical and the communications staff will establish the medical communication and information system (CIS) requirements for the operation and include them in the statement of requirements (SOR). The medical communication and information system needs to include all medical support capabilities in theatre as well as a reach back capability to the troop contributing nations' medical services. Connectivity with the joint operations centre and all headquarters staff elements must also be established and maintained.

2.14 **J7 – Training.** The training staff is responsible for training and exercise planning and interacts with the medical staff to ensure appropriate integration of medical training objectives in training and exercises, and that real life medical support to exercises is de-conflicted with the medical exercise objectives. The medical staff needs to be actively engaged with the exercise planning staff

31 See chapter 3 section 5 Casualty estimation

32 STANAG 2526 AJP-5 Allied Joint Doctrine for Operational-Level Planning Paragraph 0314. C (8).

33 See also chapter 2 section 2 and AJMedP-5 Allied Joint Medical Doctrine for Medical Communication and Information Systems.

through planning and execution of exercises from beginning. The training staff is also tasked with assessing and improving operational and tactical procedures by processing and transferring recent experience through the lessons learned and evaluation process into actionable guidance. The training staff therefore refers to medical staffs for all subject matters concerning the evaluation and improvement of medical support and healthcare.³⁴

2.15 **J8 – Budget & finance.** At theatre level, budget and finance (J8) staff are the principal financial management advisers and responsible for the correct and efficient application of all international funds approved for use in theatre in support of the operation. Direct interaction between the resources and finance staff and the medical staff may be required for: memoranda of understanding (MOUs), support for contracting, common funding and new projects or initiatives.

2.16 **J9 – Civil-military cooperation (CIMIC).** The primary mission of the civil-military cooperation (J9) staff is to support the achievement of mission objectives requiring interaction and cooperation of allied forces and civilian authorities and organizations. A close relationship between the medical and civil-military cooperation staff is key to assure effective coordination of civil and military health care activities and cooperation of military medical capabilities and non-military actors, such as non-governmental organizations, international organizations and governmental health agencies. In accordance with the tasks assigned in the operations plan, and with national regulations of the troop contributing nations, the civil-military cooperation staff may request approval of the commander for non-emergency medical assistance to the local population for a limited duration. This must be planned in close cooperation with the medical staff, to facilitate the desired end state according to the operations plan and the Law of Armed Conflict. Another area of interaction between medical staffs and civil-military cooperation staff is advice on the coordination and implementation of different medical projects promoted by the civil-military cooperation staff, or governmental/ humanitarian organizations, to avoid a duplication of efforts in the area of health care to the civil community and to prioritize the project requirements. If not conducted properly, medical projects will have a negative long-term impact on the mission and detrimental consequences for the health of the population and the safety situation in the area of operations.³⁵

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34 The medical LL are captured within the MILMED CoE LL database

35 See also chapter 1 section 1H Medical support of IDROs

2.17 **Legal advisor's office.** The legal advisor's (LEGAD's) office provides advice and services to commanders on legal matters such as, national and international law. The medical staff may be required to provide input into the advice on topics such as:

- Status of forces agreements and host nation support arrangements;
- Issues and actions pertaining to NATO support to governmental/ humanitarian organizations, or the local population;
- Claims activity within the area of operations;
- NATO liability regarding individual or public health, such as related to environmental contamination or other NATO operation based exposures;
- Visits by the International Committee of the Red Cross (ICRC);
- Compliance with applicable international, host nation, troop contributing nations' and operational law;
- The treatment of persons deprived of their liberty by NATO forces;
- Medical confidentiality.

2.18 **Strategic communications office.** The strategic communications office helps to shape the information environment, and minimizes adverse effects upon joint operations from inaccurate media reporting/analysis, violations of operations security (OPSEC) and the promulgation of disinformation and misinformation. The increased speed of information exchange due to modern means of communication has increased the reach and influence of social media. In addition to traditional mainstream mass media, this has to be considered as a relevant factor in the planning and conducting of operations. Information on possible or existing risks and incidents affecting the health of military personnel or others, particularly civilian personnel affected by military operations, is particularly sensitive and may require medical staff to work with public affairs/public information personnel to develop effective and accurate communication plans and activities.

2.19 **Religious support.** Chaplains and religious support personnel, provide counselling and complete confidential communication on matters of ethics, morality, morals, and religion to patients and staff as well as advisement to the command on topics such as:

- Religious accommodation and sensitivity;
- Well-being and stress reduction measures;
- End of life consultation and ethics committee input;
- Coordination for specific religious support requests (dietary or clergy visitation vetted through the security office);
- Provision of end of life rites, sacraments, and/or prayers;
- Religious support in critical incident response and follow-on support.

Section 2 – Communications and information management

2.20 Medical decision-making and coordination of medical support is dependent on accurate processing and timely distribution of environmental, tactical, patient and casualty data to all authorized personnel. The security and privacy of medical information shall be ensured in accordance with NATO directives (e.g., C-M(2002)49 Security within the North Atlantic Treaty Organization) and International regulations (e.g., European Union General Data Protection Regulation (EU-GDPR)). Communications and information management must effectively support medical planning, deployment health surveillance and force health protection, patient tracking and patient flow management, patient care and medical incident response coordination as well as the coordination and supply of all medical capabilities.³⁶

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36 A process for the monitoring of the medical conditions of military personnel including identification of the population at risk, assessing the health of this population through pre-, during and post-deployment health assessments, identifying potential health hazards, assessing these hazards, employing specific countermeasures, and monitoring health outcomes.

2.21 Medical communications and information management encompasses collection, evaluation, analysis and distribution of information and data relevant for the medical common operational picture (COP) by the means of:

- Medical intelligence and information (MI2)³⁷
- Medical reporting
- Health surveillance and casualty reporting³⁸
- Patient flow management and patient tracking
- Medical lessons learned

2.22 Information and data to be managed originate from medical records, reports, assessments, lessons and requests, the most common being the medical situation report (MEDSITREP), the medical assessment report (MEDASSESSREP), EPINATO, the METHANE report, the 9-line MEDEVAC request and the patient movement request (PMR). Standardized NATO tools/documents/forms should be utilized in all cases for which such templates are prescribed through NATO medical standardization agreements (STANAGs) or the Bi-SC-Reporting Directive for Art V Missions.

2.23 The quality of medical records (or medical information) has a significant impact on the quality of care. In a multinational environment medical documentation requires common standards concerning language, key information and formats to be interoperable throughout the theatre of operations and in all national contingents. Clinical records, including post-mortem reports and evidence related to deaths in theatre, must respect medical confidentiality and be accurately maintained for the use of official national or international audit and boards of inquiry. Medical personnel will ensure that documentation of medical treatment is noted on official medical records and medical confidentiality is respected.

2.24 As an integral part of operational reporting, medical reports should comply with the reporting requirements set by the operational commander. Reporting can be regular and routine, ad-hoc or episodic and will be heavily

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³⁷ AJMedP-3 Allied Joint Medical Doctrine for Medical Intelligence provides more information on Medical Intelligence

³⁸ Casualty reporting is primarily a CJ1 responsibility, however it is directly and permanently linked with medical information management

influenced by the nature and tempo of the operation. There are specific issues to be acknowledged, primarily that of medical confidentiality.³⁹ National legal requirements regarding the protection and sharing of medical information must be adhered to; these may differ between troop contributing nations. All reports between medical units should be copied to the respective national medical authority in accordance with the applicable troop contributing nations' law.

2.25 Lessons are of the utmost importance for the future development of medical structures, capabilities, organization and procedures, as they provide not only the driver but also the detail needed to amend the existing concepts, doctrines, tactics, techniques and procedures (TTPs). Medical units and medical headquarter staff have to clearly identify lessons within their routine reports and the chain of command should ensure, that all potential lessons are correctly staffed and contribute to the analysis process. Every level of the chain of command (strategic, operational or tactical) should be involved with identifying and developing lessons learned. Through the lessons identified (LI) - lessons learned (LL) process, armed forces can institutionalise experience gained from operations and exercises. The Centre of Excellence for Military Medicine (MILMED COE) provides and maintains a medical lessons learned database for observations, experiences and lessons from exercises and missions.

2.26 Telemedicine can effectively complement traditional direct referrals, consultations and medical practice to support those responsible for provision of health care in a deployed or isolated location with appropriate clinical advice and specialist guidance when needed.⁴⁰ Telemedicine may increase the capabilities available to a deployed force and can facilitate the best use of skills available within a multinational theatre of operations, but the capability provided, and the method of provision may vary between nations and providers. The increased communications bandwidth required to support the use of telemedicine needs to be considered during the planning of medical support to operations.

2.27 Medical communications and information management requires a reliable medical information and coordination system, capable of exchanging verbal information and visual data with medical facilities and supporting automation technologies across the progressive spectrum of medical care

39 The principle that sensitive clinical information is not to be communicated to any individual or organisation that does not have a medical need-to-know, except as required by national policy for that nation's patients.

40 Remote diagnosis and treatment of patients by means of telecommunications technology.

and evacuation. This system needs effective protection and resilience against cyber-attacks and an interface with corresponding logistic and operational data management systems and planning tools. It should enable record keeping, surveillance and the full range of medical staff functions. Detailed guidance on medical communication and information management can be found in AJMedP-5 Allied Joint Doctrine for Medical Communications and Information Systems.

UK medical communication and information systems



UK 2.3. The DMS fully recognises the importance of information in fulfilling their remit to promote, protect and restore the health of the Defence population at risk, both in the firm base and on deployed operations. The major clinical information systems currently in service are as follows.

- a. **Defence Medical Information Capability Programme.** The Defence Medical Information Capability Programme is the core primary medical, dental, occupational health, mental health and rehabilitation information support tool, providing an integrated electronic health record capability for Defence.
- b. **Defence Medical Information Capability Programme Deployed.** The Defence Medical Information Capability Programme Deployed is a deployable version that has been modified to enable its operation in locations where there is no guarantee of connectivity to back-end data repositories.
- c. **Radiology and teleradiology systems.** Radiology and teleradiology systems is a capability that facilitates the administration of patient and examination data through the radiology information system.
- d. **Laboratory information management system.** The laboratory information management system provides pathology and blood product management capabilities to deployed operations where required.
- e. **Central health records library systems.** The central health records library systems are the repository for archiving both physical and electronic medical records.

UK 2.4. Cognisant of the requirement to improve, UK medical communication and information services, Programme CORTISONE will focus on delivering the changes to the DMS' health and health care information capability to meet the continuing and emerging needs of both the organisation and wider Defence. This programme will address the support requirements for information gathered by the DMS to fully and effectively deliver evidence-based medical, dental and health care outputs. The primary objectives are to:

- deliver managed health care delivery – supported by digital processes – enabling controlled access to health care information when and where required;
- provide information management and exploitation of health and health care data to the right people at the right time in the right format;
- adopt a more coherent and holistic approach to the development and introduction of future medical information capabilities and services;
- improve information connectivity with UK national health care services;
- provide a fully integrated information service that supports medical processes seamlessly between the firm base and deployed operational locations;
- support health care delivery in the full range of deployed operational scenarios with scalable, flexible and mission configurable solutions and delivery models able to adapt to environmental circumstances, including connectivity options; and
- improve information exchange with the health care systems of allies and/or NATO partner nations.

Section 3 – Force health protection (FHP)

2.28 Force health protection⁴¹ comprises all medical efforts to promote or conserve physical and mental well-being, reduce or eliminate the incidence and impact of disease, injury and death and enhance operational readiness and combat effectiveness of the forces. It encompasses actions to counter the debilitating effects of environment, occupational health risks, environmental and industrial hazards (EIH), disease related, chemical, biological, radiological, nuclear (CBRN) threats and selected special weapon systems through preventive measures for personnel, systems, and operational formations.⁴²

2.29 Diseases and non-battle injuries (DNBIs) will be an ever-present risk to personnel that very often generate the greatest burden of morbidity upon the deployed force. The primary aim of force health protection is casualty prevention through the robust implementation of comprehensive disease and injury prevention measures and of health protection and surveillance capabilities that will promote, improve, or conserve the mental, behavioural and physical well-being of the deployed force. Force health protection will influence operations planning, continue throughout the deployment and must extend well into the post-deployment period.

2.30 Force health protection is described in detail in AJMedP-4 Allied Joint Medical Force Health Protection Doctrine and its subordinate publications. It involves:

- Preventive medicine, environmental health and veterinary services⁴³
- Health readiness and health promotion⁴⁴
- Medical information and intelligence (MI2)
- Deployment health surveillance, disease and casualty reporting⁴⁵

41 AJMedP-4 Allied Joint Medical Doctrine for Force Health Protection provides more details on Force Health Protection.

42 A medical contribution to FP could also consist of medical engagements to support CIMIC or Psychological Operations (PSYOPs) in order to actively influence local key leaders and power brokers.

43 See also chapter 3, section 6 Preventive Medicine, Environmental Health- and Veterinary Service

44 See also chapter 3, section 1 Health Readiness and Health Promotion

45 See also chapter 3, section 7 Deployment Health Surveillance, Disease and Casualty Reporting

2.31 Force health protection should be effective and proactive. Medical information and intelligence as well as Deployment health surveillance, disease and casualty reporting have to be considered. Health surveillance and preventive medicine measures must be planned accordingly and implemented from the start of a deployed operation. The health threat surveillance and assessment process must determine the full effect of health threats and provide solutions for how these effects can be eliminated or mitigated.

2.32 Failure or poor implementation of force health protection measures may result in a significant decrease of operational readiness and fighting power. To ensure that medical aspects of force protection are properly incorporated into the operational medical planning process and the commander's decision making, a force health protection cell is normally established within the formation headquarters' medical staff, providing advice on how to protect the force against threats to its health.⁴⁶

Section 4 – Military health care (MHC)

2.33 Military health care (MHC) encompasses measures and activities to sustain or restore the health and the fighting strength of all military personnel from enlistment to retirement through the full spectrum of military duties in their firm base and on deployment. MHC may also include health care to the assigned population at risk as defined by the medical rules of eligibility. MHC is the subject of AJMedP-8, the Allied Joint Medical Doctrine for Military Health Care (STANAG 2598) and its subordinate publications.

A. Elements of military health care

2.34 **Preventive health care.** Preventive health care encompasses services aiming to identify, prevent, and control acute and chronic communicable and non-communicable diseases, illnesses, and injuries. This includes medical screenings, vaccinations, advice and training on protective countermeasures and hygiene.

2.35 **Occupational health care.** Occupational health care encompasses medical fitness assessments for military personnel operating in certain military occupations, screenings for and treatment of illnesses or injuries related to specific operational or working environments. Examples of occupational

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46 See also paras 2.4 – 2.6 Medical HQ Staff Architecture

health care specialties are, dive medicine, altitude medicine, tropical medicine and aerospace medicine.

2.36 Emergency medical care. Emergency medical care encompasses the critical actions required for timely evaluation, resuscitation, stabilization, treatment and transportation of an emergency patient to prevent a loss of life, limb, and function. Pre-hospital emergency care is delivered from the point of injury / insult to admission in a secondary health care facility, where critical care and specialist treatment (including surgery) can be provided.

2.37 Routine medical care. Routine medical care encompasses medical counselling, care and management of non-critical sick and injured personnel in anticipation of return to duty. This includes but is not limited to outpatient sick call, routine screenings, medical advice, specialist care and physical rehabilitation in theatre.

2.38 Mental health care. Mental health care encompasses mental health screenings prior to deployment, prevention and management of psychological and mental impairment resulting from illness, stress or trauma, during combat operations and subsequently into the post-deployment period. Mental health care aims to improve the overall health of the force and to ensure that personnel have the services they require to deal with mental health issues that arise as a result of participation in NATO operations such as post-traumatic stress disorder and traumatic brain injury.

2.39 Dental care. Dental care encompasses dental health screenings prior to deployment as well as prevention and management of dental impairment during allied operations. Dental care on operations is provided at deployed medical treatment facilities to a varying degree based on the operational requirements of the particular mission. In order to standardize interoperability and interchangeability, STANAG 2453 AMedP-8.13 The Extent of Dental and Maxillofacial Treatment at Role 1-3 medical treatment facilities describes the different dental care modules required to treat dental (and maxillofacial) conditions.

2.40 Animal care. Animal care encompasses, first aid, treatment, care and welfare to military working animals.⁴⁷ However, during deployments

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 47 Standards for the care of military working animals vary among Alliance members; they may range from simple but humane veterinary treatment to treatment more akin to those for human members of the force. Expected treatment of deceased working animals may also vary. National norms and caveats should be recognized in order to manage expectations.

the following animals could also require the attention of deployed veterinary personnel: stray dogs and cats, rodents and other potential disease vectors, farm animals (particularly during humanitarian assistance or disaster relief operations and/or in support of civil military cooperation activities), wild animals (especially animal species protected by international laws and regulations).

B. Roles and capabilities

2.41 The spectrum of medical support capabilities and the respective medical support capacities should correspond to the mission, the force and the risks the force will face. They should be adaptable to changes in the deployed forces' strength or the mission specific risks and allow to meet peak casualty rates in excess of expected daily rates. Medical support capabilities, whether deployed in whole or part, should constitute a medical support system.

- a. operating as a networked system-of-systems, which when combined, may produce a healthcare effect that is greater than the sum of the individual parts;
- b. comprising inherently agile components which can be readily reconfigured to perform multiple roles/tasks across the spectrum of conflict;
- c. seamlessly integrating maritime, land and air medical capabilities;
- d. balancing the clinical requirement and the tactical situation;
- e. providing layered incremental clinical capability that can be tailored/targeted, both in terms of time and space, according to the needs of the patient.

2.42 The functions and capabilities of military health care required to maintain the health of the force at certain, defined levels are described by roles. The minimum capabilities of each role are in general intrinsic to all higher roles.

2.43 **Role 1 (R1).** The role 1 of military healthcare encompasses a set of primary health care capabilities which includes but is not limited to triage, pre-hospital emergency care and essential diagnostics.⁴⁸ R1 may also include a limited patient holding and medical supply capability.

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48 Triage categories can be found in Annex C

UK 2.5. The UK regards provision of Role 1 assets as a national responsibility to be employed at the tactical level.



2.44 **Role 2 (R2).** The role 2 of military healthcare encompasses a set of military health care capabilities which enhances the resuscitative spectrum of the role 1 by capabilities essential to preserve life, limb, and function and stabilize the patients' condition for further transport and treatment:

- a. **Role 2 forward (R2F)** military health care capabilities are highly mobile and deployable into remote, austere, or unsecure tactical environments enabling forward projected resuscitative and surgical treatment to control bleeding, maintain circulation, restore perfusion and preserve life, limb, and function. R2F capabilities may also be deployed to augment or to enhance other medical capabilities in theatre. R2F capabilities comprise triage, essential diagnostics, damage control resuscitation (DCR) and damage control surgery (DCS).⁴⁹ Their resources are limited. If not enhancing or augmenting other medical support capabilities which include patient holding and post-operative care, R2F rely on immediate medical evacuation and resupply after treatment.
- b. **Role 2 basic (R2B)** capabilities enable life, limb, and function preserving resuscitative and surgical interventions. R2B capabilities may operate highly mobile, afloat or land based and comprise triage, essential diagnostics, damage control resuscitation and damage control surgery, short term post-operative critical care, limited patient holding and medical supply. R2B capabilities may also be deployed to augment or to enhance other medical capabilities in theatre.
- c. **Role 2 enhanced (R2E)** capabilities may provide diagnostic, specialist and hospital care essential to stabilize and prepare patients for strategic evacuation. In addition to the capabilities of a role 2 basic, this includes but is not limited to surgery, x-ray, laboratory, blood bank, pharmacy and sterilization.

2.45 **Role 3 (R3).** The role 3 of military health care comprises a set of deployable specialist- and hospital care capabilities which at least includes computed tomography (CT) and oxygen -production in addition to all the R2

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 49 Including the application of blood products

capabilities listed above. R3 capabilities may reduce the need for a repatriation of patients and enable a higher standard of care prior to strategic evacuation.

UK 2.6. The UK defines Role 3 as a hospital response capability which provides secondary health care at theatre level. A Role 3 medical treatment facility (MTF) must provide all the capabilities of the Role 2E MTF and be able to conduct specialised surgery, care and additional services as dictated by mission and theatre requirements. UK Role 3 MTF may provide CT, but does not have the means to independently produce oxygen and is reliant on cylinders and oxygen concentrators for supply.



2.46 **Role 4 (R4).** The role 4 comprises the full spectrum of military health care including highly specialized capabilities (such as reconstructive-surgery, prosthetics and rehabilitation) that cannot be deployed or will be too time consuming to be conducted in theatre. Role 4 medical support is a national responsibility and normally provided by (military or military contracted civilian) hospitals in the casualty's country of origin or at a regional hub (firm base).

2.47 Capabilities, operating alongside the roles of military healthcare but not directly related to a specific role of military health care include but are not limited to:

- a. **MERT – Medical emergency response team.** MERTs are composed of emergency care professionals trained and equipped to provide pre-hospital emergency and critical care platform independent and in any operational environment other than direct combat.
- b. **CSU – Casualty staging units.** CSUs encompass an adequate patient holding and nursing capacity to collocate already stabilized patients, hold them, prepare them for transportation and transfer them to the transport platform for handover to the MEDEVAC crew. CSUs may be augmented/enhanced with a critical care, surgical, aviation medicine or medical supply capability if required.

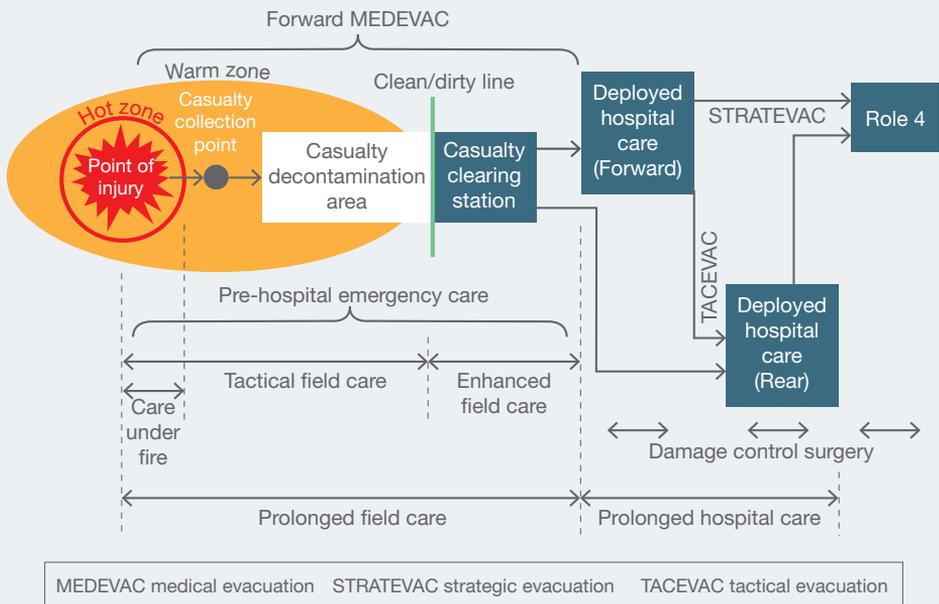
2.48 The NATO medical defence planning capability statements and the Maritime Medical Planning Guidance included in AJMedP-1 Allied Joint Medical Planning Doctrine (Chapter 3, Section 3) provide agreed standards which can be used as references to determine the minimum requirements for medical capabilities supporting NATO operations. Complimentary

enhancements (such as food-chemistry, veterinary medicine, dental care, mental health care) may be added to any medical facility or asset irrespective of its role. Each asset or medical treatment facility should be adjusted according to the respective medical planning estimate and to comply with national standards, considering that enhancing and upgrading of medical assets and facilities will generate demands for additional equipment, personnel and supplies, which in turn increases movement, transport and other support requirements.

The Operational Patient Care Pathway



UK 2.7. The OPCP is a model that articulates the continuous, seamless and escalatory increase in clinical care provided to the operational patient. It also offers a template to support medical planning for providing health service support on deployed operations, enabling clinical care to meet the needs of the patient, where possible within medical planning guidelines. The OPCP model is illustrated in UK Figure 2.1.



UK Figure 2.1 – The Operational Patient Care Pathway model

UK 2.8. The principles described in the OPCP also apply to clinical support to the Defence population at risk conducting training and other military activities. It does not, however, encompass extra clinical capabilities that the firm base health services support provides (even if delivered outside the UK). The OPCP is applicable to casualties requiring both trauma and acute care. There are two zones of care in the OPCP.

a. **Hot 'non-permissive' zone.** The hot zone is a non-permissive environment representing an immediate threat to personnel from direct fire or a known environmental threat. Clinical care is limited to care under fire covering only those techniques necessary to provide immediate life-saving interventions while the patient is being extracted. This is likely to be self-administered or buddy first aid.

b. **Warm 'semi-permissive' zone.** The warm zone is a semi-permissive environment representing a specific secondary threat to personnel from indirect fire or other threats. There is not likely to be a demonstrable 'hard edge' to the warm zone. Clinical care is described as tactical field care covering those interventions necessary to save/stabilise life and prepare the patient for medical evacuation.

UK 2.9. The area outside the warm zone has explicitly not been labelled. There may be potential threats to the health service support system, but these are not sufficiently specific to extend the radius of the warm zone.

UK 2.10. Care of the casualty starts at the point of injury, usually in the hot zone. The casualty receives care under fire during extraction from the hot zone, which extends to the remainder of the tactical field care capability. Casualties are grouped together at the casualty collection point. After initial triage, casualties are transported to a casualty decontamination area where they are sanitised to remove any threats to their own health or that of others. If it is not possible to medically evacuate them directly to DHC, casualties are transported to a casualty clearing station for continuing emergency care pending medical evacuation to DHC. DHC may be organised in echelons of care, illustrated schematically as forward and rear.

UK 2.11. Pre-hospital care (the term 'pre-hospital care' should be used synonymously with the NATO descriptor 'Role 1') encompasses all aspects of health service support forward of DHC. It includes:

- core functions of primary health care;
- pre-hospital emergency care and forward medical evacuation; and
- force health protection.

All aspects are enabled by medical logistics and medical C4I – organised as a networked, agile, integrated and layered health care system. As such, the system is configured to ensure that specific health care needs are supported and accessed within accepted medical planning guidelines.

UK 2.12. Prolonged care is provided to casualties if there is likely to be a delay in meeting medical planning timelines. The UK uses the 10.1.2(2)+2 planning guideline to inform the location of clinical capabilities, by time, in the OPCP. Moving operational patients between DHC facilities is referred to as tactical medical evacuation, while moving them from the joint operations area to Role 4 (Role 4 medical treatment facilities normally provide definitive care in the firm base), is called strategic medical evacuation.

UK 2.13. Military medical treatment facilities are designated a role number to describe their functional capability to deliver a specific level of care. It is implicit that higher levels of role incorporate the functions of lower levels. UK doctrine, however, is more capability focused and does not necessarily replicate this approach.

UK 2.14. UK Table 2.1 maps the UK core capabilities against the NATO role definitions. The series of numbers under Roles 2 and 3 medical treatment facilities relates to the number of emergency department bays/surgical tables/intensive treatment unit beds/intermediate care ward beds within a facility.

Service	Role 1 MTF	Role 2 Forward MTF ¹	Role 2B MTF	Role 2E MTF	Role 3 MTF	Role 4
Royal Navy	Sick bay RAP MRS	FSC ² 1/1/1/2	CFSG 2/1/2/4 Role 2 Afloat 2/1/2/0	PCRF ³ 2/2/5/15/10 ⁴ 4/2/5/15/15	PCRF 4/4/10/20/70	
British Army	PHTT MRS UAP	AMSG 1/1/1/0 Fd Hosp 1/1/1/0	AMMG 2/1/2/6 Fd hosp 1/1/1/6	Fd Hosp 2/1/2/12 4/2/4/48	Fd Hosp 8/5/10/60	
Royal Air Force	Role 1 (Air)		HSU 1/1/4/25 ⁵			
Strategic Command						RCDM DNRC

Legend

AMMG	Air Manoeuvre Medical Group
AMSG	Air Manoeuvre Surgical Group
CFSG	Commando Forward Surgical Group
DNRC	Defence National Rehabilitation Centre
Fd Hosp	field hospital
FSC	forward surgical capability
HSU	hospital staging unit
MRS	medical reception station
MTF	medical treatment facility
PCRF	primary casualty receiving facility
PHTT	pre-hospital treatment team
RAP	regimental aid post
RCDM	Royal Centre for Defence Medicine
UAP	unit aid post

Footnotes to table

1. Was called forward surgical element in AJP-4.10(B).
2. The FSC concept remains unfunded and awaiting endorsement.
3. PCRF is typically a Role 3 MTF that can be scaled down to a Role 2E or Role 2B MTF.
4. Royal Navy intermediate care ward beds are split high dependency and low dependency as the latter (currently) are bunk bed accommodation.
5. When operating as part of an air-focused intervention the HSU will provide DHC to its own population at risk.

UK Table 2.1 – Comparing UK medical capability and NATO role definitions

Section 5 – Medical evacuation (MEDEVAC)

A. Scope of medical evacuation⁵⁰

2.49 **Medical evacuation.** Medical evacuation (MEDEVAC) is the process of moving any person who is wounded, injured or ill under continuous medical supervision and care to or between medical treatment facilities.⁵¹ Medical evacuation is an integral part of the continuum of care and conducted during military operations by designated assets able to provide in transit care in accordance with prevailing medical standards at the same or a higher level as provided by the originating unit.

- a. **Forward medical evacuation** is conducted from the point of injury/insult or a casualty collection point to the initial medical treatment facility.^{52,53} Forward medical evacuation teams should be equipped and trained to rescue and evacuate patients out of a hostile, remote or austere environment.

UK 2.15. UK OPCP doctrine describes forward medical evacuation as the movement of casualties in a designated vehicle with medical escorts from point of injury to DHC.



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50 MEDEVAC is described in more Detail in AJMedP-2 Allied Joint Medical Doctrine for Medical Evacuation

51 In contrast to medical evacuation, casualty evacuation (CASEVAC) means unplanned or occasional movements of casualties not employing dedicated or designated medical capabilities. Casualty evacuation is neither a medical capability, nor a medical responsibility and only to be considered, if it will take a casualty to the next medical treatment facility, before a medical evacuation asset will be on scene, if the number of casualties overwhelms the medical evacuation system (mass casualty incident) or if there is a need to preserve medical evacuation assets for activities of greater importance or utility. To cope with the casualty rates in large scale major joint operations, it may be necessary to consider CASEVAC for all casualties not in need of continuous medical care.

52 The point of Injury / Insult (POI) is the location where injuries occurred or acute symptoms were reported first. It may be located within a combat zone.

53 At the casualty collection point (CCP) casualties are collected after rescue from a combat, hostile or non-permissive environment. A casualty collection point is usually established in a semi permissive or safer environment and manned with one or more designated emergency care providers. Any obvious threat to the health of the patient or to operational medical assets or treatment facilities has to be removed from the patient at the casualty collection point (decontamination and disarmament). This is not a medical responsibility and may be performed by non-medical personnel trained for this role.

b. **Tactical medical evacuation** is conducted from one medical treatment facility to another within the area of operations. Patients will routinely have been stabilized prior to evacuation. Tactical medical evacuation teams should be equipped and trained to provide the same level of care as it is provided by the originating medical treatment facility which might include in-transit intensive care.

c. **Strategic medical evacuation** is to be conducted from intra-theatre medical treatment facilities, to a medical treatment facility outside the area of operations (usually role 4). Teams should be equipped and trained to provide the same level of care as it is provided by the originating medical treatment facility which might include in-transit intensive care. In principle Strategic medical evacuation is a national responsibility that can be fulfilled by multi-national agreements and should be coordinated between the force commander and the troop contributing nations. In case of non-availability of military means, consideration should be made for the use of civilian charter aircraft with the caveat over their ability to fly into the operational theatre.

2.50 Successful patient treatment and transport coordination requires medical evacuation assets with qualified and specifically trained personnel in sufficient numbers and must consider factors such as the operational environment, the weather, the length and quality of evacuation routes. The medical evacuation system should be able to continuously assure:

- Evacuation of patients during day and night, in all weather and sea conditions, in any terrain and any operational circumstances.⁵⁴
- Provision of appropriate emergency and critical care throughout the evacuation.
- Patient flow management and disposition to the most appropriate medical treatment facilities.
- Real time/near real time patient tracking through the entire continuum of care.

2.51 Nations are responsible to provide the required availability of land, sea and air medical evacuation capabilities and to harmonize their medical

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⁵⁴ Acknowledging that the evacuation could be significantly influenced by environmental and tactical factors.

evacuation procedures and capabilities with each other. The NATO medical defence planning capability statements provide an agreed standard for the minimum requirements of medical evacuation capabilities and can be used as a planning reference. Commanders and their staffs are responsible for the operational integration, coordination and employment of the medical evacuation system and its assets, the medical staff for effectively planning and coordinating the respective medical elements.

2.52 Detailed air, ground and maritime medical evacuation plans need to be established in close cooperation with the operations staff (CJ3 – Land, Maritime, Air), the logistics (CJ4) and communications (CJ6) staff at all levels of command for the respective area of responsibility balanced against the force strength and the exposure to risk. National and multinational lines of control and accountability for medical evacuation must be determined by the operations plan (OPLAN).

2.53 NATO commanders and their medical staff need to ensure the best possible and most effective use of national medical evacuation assets and activities in the area of operations by coordination. A patient evacuation coordination cell (PECC) should therefore be part of every joint operations centre (JOC).⁵⁵ National medical liaison teams (NMLT) with a national senior medical officer (SMO) in lead, should be co-located with their national support element (NSE) and deploying, if required, to medical facilities to assist in the administration, tracking, and repatriation of their nation's patients.⁵⁶

B. Medical evacuation assets

2.54 While medical treatment facilities are generally categorized in terms of roles, according to their capabilities and function, medical evacuation assets are defined by the area in which they operate along the continuum of care. These are the following.

2.55 **Intra-theatre assets.** Intra-Theatre assets are used for forward and tactical evacuation of patients. They should be appropriate to the mission they support. Medical evacuation assets operating in a non-permissive or combat environment should be protected and in extremis safeguarded by a combat escort element. Intra theatre assets include:

.....
 55 Even if sometimes described as patient evacuation coordination centre (AAP-15) the COMEDS agreed on the term patient evacuation coordination cell as per 18-06-2018 record/fiche 38843. Manning and size of the PECC may vary

56 See also Chapter 3, Section 9: Patient Evacuation Coordination.

a. **Ground medical evacuation assets**, which can evacuate patients from the point of injury or a casualty collection point even in harsh conditions and out of a combat zone, but also transport patients between medical facilities. Forward ground evacuation assets should have commensurate mobility and protection as the force they are supporting, and medical equipment, tailored to mission purposes. Ambulances are the most common type of forward ground evacuation assets. They may be manned and equipped to provide advanced resuscitative/critical care or to deliver basic in transit care at a higher capacity. Tactical ground evacuation assets may include high capacity ambulances but also platforms capable to provide in-transit critical care, hospital trains or busses configured for the transport of casualties. Ground evacuation relies on lines of communication, which can easily be interrupted. Moving ground evacuation assets are constantly at risk of being detected and targeted or attacked.

b. **Air medical evacuation assets** (tilt rotor, rotary and fixed wing), which can provide a significant contribution to the timeliness of medical evacuation. The specialist personnel and equipment required for aeromedical evacuation (AE) must be given access to the air asset in a timely manner to ensure preparation for the specific aero medical evacuation task. The operational environment, the transport time as well as the patient's condition may require to augment the standard aeromedical evacuation crew with specialised medical personnel (such as a critical care air transport team - CCATT or a critical care aeromedical evacuation support team CCAST) providing in-transit-critical-care during AE at the same level as provided by the originating medical facility. Aero medical evacuation assets can cover a bigger area and transport patients much faster than surface assets even if LOCs are interrupted, but they are limited by capacity, operational- and weather conditions and always need a sufficient backup by surface medical evacuation assets.

c. **Maritime and water surface medical evacuation assets**, which are not the primary means of medical evacuation in maritime or amphibious operations but constitute an essential backup contingency when aeromedical evacuation is compromised or casualty rates exceed the capacity of evacuation assets. They may be manned and equipped to provide advanced resuscitative/critical care or to deliver basic in transit care at a higher capacity. Usually tilt rotor/rotary wing air assets are used for medical evacuation between maritime platforms and military health care facilities.

2.56 **Inter-theatre assets.** Inter-theatre assets will be used for strategic medical evacuation and will depend on the nature of the area of operations and the distances to bridge. They include but are not limited to hospital ships, hospital trains and fixed wing aeromedical evacuation platforms.

Section 6 – Medical logistics

2.57 Medical logistics embraces procurement, storage, movement, distribution, maintenance and disposition of medical materiel and pharmaceuticals, including blood, blood components and medical gases. Legislation, regulations and responsibilities related to medical logistics may differ between nations.

2.58 **The medical logistics system.** The medical logistics system needs to ensure the sustainability of medical support under all operational conditions. The scale and scope of a medical logistics system will be mission dependent. Planning and executing an effective medical logistics system is primarily a national responsibility. NATO commanders and their medical staff may therefore need to exercise their authority to ensure the best possible and most effective use of national assets and activities in the area of operations by coordination. The medical logistics system must be straightforward and reliable, cost-effective, simple and capable of delivering medical supplies rapidly, and theatre-wide. It must enable national contributions to be self-sufficient from deployment and throughout the duration of the mission, as specified by planning staffs in compliance with the principles of Good Distribution Practice (GDP).⁵⁷

2.59 **Interoperability.** Any nation providing support of medical material or pharmaceuticals to other nations is responsible for appropriate storage and transportation until the point of transfer. Key aspects of medical supply facilitating the interoperability amongst NATO medical services are:⁵⁸

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57 GDP is an internationally accepted quality warranty system for purchasing, receiving, storage and delivery of medical supplies. In Europe GDP is based on the Directive of the Board of the European Community 92/25/EEC. In the USA GDP is based on the Code of Federal Regulations 21 CFR 210/211, and USP 1079. In Canada GDP is based on Health Canada Good Manufacturing Practices GUI-001 and Guidelines for Temperature Control of Drug Products during Storage and Transportation GUI-0069

58 See also STANAG 2128 AMedP-1.12 Allied Medical Doctrine for Medical and Dental Supply Procedures

- a. Property exchange or replacement of medical non-expendable items (e.g. ventilators, stretchers) at all levels within a theatre of operation that are required to accompany patients during evacuation from the battlefield to the next appropriate medical or dental facility. This materiel must clearly be marked with the nation of origin in plain text, the national flag or the NATO stock number.⁵⁹
- b. The required information on medical supplies, including instructions concerning specific conditions for storage or transportation (humidity or temperature). The date of production and expiry should always be visible.
- c. The methods of identification of the contents of syringes, syrettes, containers and self-injection devices. For self-injection devices, it is imperative that all medical personnel and all users understand the meaning of the colour codes that are utilized. AMedP-1.5 Allied Medical Doctrine for the Identification of Medical Material used In Field Medical Installations (STANAG 2060) facilitates the rapid identification of medical material used in field medical installations to enable more effective cooperation.

2.60 **Medical supplies.** Medical supplies have some unique characteristics:

- a. **Protected status.**⁶⁰ Medical supplies are protected under the terms of the Geneva Conventions, when properly marked and separately stored and distributed from combat supplies.
- b. **Regulatory aspects.** The accounting, administration and use of medical supplies, in particular controlled drugs and blood products, are governed by national and international regulations as well as the reverse supply chain and the constraints on clinical waste that cannot be disposed in theatre. The consumption and controlled disposal of medical materiel must be recorded for legal, environmental and asset control reasons.
- c. **Handling requirements.** Tight controls and specialized management are required for medical supplies due to the technical and

.....
59 See also AMedP-1.12 Allied Medical Doctrine for Medical and Dental Supply Procedures, paragraph 2.1.1

60 See also STANAG 2060 AMED-P 1.5 Allied Medical Doctrine for the Identification of Medical Material Used In Field Medical Installations (STANAG 2060)

perishable nature of the materiel, especially, its often limited shelf life and its sensitivity to storage, transport and environmental conditions.

d. **Importance.** The availability of medical equipment and materiel, even of seemingly insignificant items can be of vital importance. The medical logistics system must contain expertise for the possible and likely implications of material medical support shortfalls and delays and be able to respond to short notice clinical demands.

2.61 **First aid and emergency medical care equipment.** First aid and emergency medical care equipment should be developed by each nation in accordance with national requirements. Where multinational development opportunities exist, this is to be encouraged.

a. All military personnel deployed should be equipped with an individual first aid kit (IFAK). The respective NATO standards are defined by AMedP-8.7 (STANAG 2126) Allied Medical Doctrine for First-Aid Dressings, First Aid Kits, and Emergency Medical Care Kits.⁶¹

b. Standards for emergency medical supplies on NATO maritime platforms operating in medically isolated areas are defined by AMedP-1.9 (STANAG 1208) Minimum Requirements of Emergency Medical Supplies On Board. As it is accepted that nations have their own choice of drugs for treatment in emergency cases, it is important that medical personnel are informed about the medical supplies issued to ships of other member nations for mutual assistance.

c. First aid equipment should be carried in all military vehicles.

2.62 **Blood and blood products.** The supply of blood and blood products is a critical function within medical logistics. Availability of blood and blood products is mandatory for all roles of military health care with a surgical capability and to be considered for all resuscitative capabilities.

a. The minimum requirement for an in-theatre system will be:

- o Receiving blood and blood components of a standard acceptable to all participating national contingents as established in AMedP-1.1 (STANAG 2939) Minimum

⁶¹ This STANAG does not include special medical supply recommendations for the treatment of CBRN casualties. These are outlined in AMedP-7.2 CBRN First Aid Handbook.

Requirements for Blood, Blood Donors and Associated Equipment.

- o Moving, storing and distributing blood and blood components, and disposal of clinical items used in blood administration.
 - o Maintaining continuity of records from donor to recipient and vice versa.
 - o Collecting, processing and testing blood on an emergency basis.
- b. While national contingents are responsible for the supply of blood to their own patients, this is not always practical and feasible. Multinational support arrangements could be set up in the area of operations for blood and blood products provided, ensuring that national and internationally agreed standards are met.

2.63 **Stretchers.** Standards for stretchers, bearing brackets and attachment supports are defined by AMedP-2.1 ALLIED MEDICAL DOCTRINE FOR STRETCHERS, BEARING BRACKETS AND ATTACHMENT SUPPORTS (STANAG 2040). These standards are mainly conforming dimensions to facilitate cross-servicing between NATO forces for transportation of patients by ground or aeromedical assets.

2.64 **Medical gases.** Parameters and characteristics for common use medical gas cylinders (for example: standard colour code system for the identification of the content) are described in AMedP-1.19 ALLIED MEDICAL DOCTRINE FOR CROSS SERVICING OF MEDICAL GAS CYLINDERS (STANAG 2121). These standards facilitate interchangeability and ease the resupply of medical gas cylinders.

2.65 **Medical waste.** Standards and procedures for handling and disposal of regulated medical waste must be incorporated in the medical logistic support plan across the theatre. This plan should consider all necessary aspects to prevent pollution, protect the environment, comply with regulatory guidance/policy, protect the deployed force and be in compliance with host nation laws. An Environmental Protection officer should be consulted for general waste-management planning. Further information is found in the Allied Joint Environmental Protection Publications (AJEPP).

2.66 **Medical stockpile planning.** Medical stockpile planning should ensure that resources and stocks of adequate medical supplies and equipment to support forces are assigned and earmarked to NATO. This includes the establishment and maintenance of minimum medical material and pharmaceutical levels, as well as surge production capabilities.

Key points



- Medical support operates as a networked system, seamlessly integrating maritime, land and air capabilities, providing the agility to perform multiple tasks across the spectrum of conflict and generating health care effect that is greater than the sum of the parts.
- **UK.** The OPCP is a model that articulates the continuous, seamless and escalatory increase in clinical care provided to the operational patient.
- **UK.** Access to deployed hospital care within the 10.1.2(2)+2 medical planning guideline is an essential component of the OPCP.
- Medical evacuation is the process of moving any person who is injured or ill under continuous medical supervision and care to or between medical treatment facilities.
- **UK.** The DMS uses the ten instruments of military medical care as a means of generating medical force elements that are mission-tailored to the scale and complexity of a specific operation.



Chapter 3

This chapter describes how medical support is provided through its different functions from preparedness through planning to health care provision and management on operations. It provides essential guidance on health readiness and promotion, on medical intelligence and information, educational standards and evaluation, on medical planning, preventive medicine, and the management of casualties and major medical incidents.

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By the **prevention** of disease, the **rapid** and **effective** treatment of the injured or diseased, and their medical evacuation, the **medical services** make a **major contribution** to **force protection** and **sustainability**.

”

MC 0326/4, *NATO Principles and Policies of Medical Support*, August 2018

Chapter 3

Medical support related tasks and functions

Section 1 – Health readiness and health promotion

3.1 Health readiness and health promotion relate to force health protection (FHP) and are described in more detail in AJMedP-4 Allied Joint Medical Doctrine for Force Health Protection. Addressing life-style related health risks such as obesity, bad physical condition, drug consumption, nutrition failures or unhealthy habits from a macro to a micro perspective, health readiness and health promotion will sustain and enhance the well-being and operational readiness of the individual soldier to the total force in the areas of:

- a. **Mental health.** Mental health encompasses the readiness and resiliency to deal with the stress of deployments. Mental health promotion facilitates the development of knowledge, skills and a mind-set that soldiers and military personnel need to function in and cope with the stressors of a military environment.
- b. **Behavioural health.** Behavioural health promotion focuses on stress management, combat stress control, sleep discipline, suicide prevention and surveillance, responsible sexual behaviour, alcohol and drug abuse prevention, and tobacco cessation programs.
- c. **Physical health.** Physical health is not limited to only physical fitness, but includes an array of areas that ensures the total needs of the fit and ready body are addressed. These include soldier physical training, injury prevention, ergonomics, oral health, nutrition, and weight management.

Section 2 – Medical intelligence and information (MI2)⁶²

3.2 **Medical information.** Medical information incorporates all information on medical or environmental threats or on health infrastructure which has been gathered through non-intelligence channels and which has not been analysed for intelligence content. Medical Information should be shared freely among members of the Alliance and its partners.

3.3 **Medical intelligence (MEDINT).**⁶³ Medical intelligence is the product resulting from the directed collection and assessment (processing) of medical, bio-scientific, epidemiological, environmental and other information related to human or animal health, to identify threats and offer opportunities for exploitation by decision-makers. Medical intelligence is not to be used, to take any advantage of medical vulnerabilities of any party as this would be a serious violation of fundamental ethical and legal conventions and likely have deleterious effects.

3.4 Medical information and medical intelligence contribute to health risk estimation, articulation and management as well as to intelligence preparation of the operational environment. Medical intelligence and information is essential for medical planning as well as for force health protection and encompasses:

- a. Environmental factors including topography and climate, socio-economic factors, public health, animal and plant hazards.
- b. Health care services and infrastructure including organizational structure, capabilities of hospitals and treatment facilities, casualty evacuation and emergency health services and capabilities, specialist health support, medical material, blood bank, and clinical laboratory capabilities. This should include information on civilian and military facilities in the area of operations whatever the sources of information (national, international, civilian or military).

.....
62 AJMedP-3 Allied Joint Medical Doctrine for Medical Intelligence describes Medical Intelligence in more detail, AmedP-3.2 Allied Medical Doctrine for Medical Information Collection and Reporting provides more information related to MI2. MI2 is directly linked with FHP and its related tasks and functions.

63 See also para 2.9 - Intelligence

c. Epidemiological data including incidence, distribution and control of communicable diseases (particularly gastrointestinal and respiratory diseases, vector-borne diseases and sexually transmitted diseases) in the area of interest.

3.5 Medical intelligence and information should be timely, easily accessible, comprehensive and reliable, which means specific, accurate and up to date. When supporting intelligence and operational staffs in the conduct of strategic assessments, medical intelligence and information has to be compliant with ethical standards and recognized laws pertaining to human rights such as the United Nations Principles of Medical Ethics, the Law of Armed Conflict and medical confidentiality.⁶⁴

Section 3 – Education and training (E&T)

3.6 Appropriate care and interoperability in multi-national, combined joint operations heavily depends on a common understanding, proper communication and harmonized procedures. This is even more important, as training and education particularly of healthcare providers, medical professionals and physicians are a national (or even provincial) responsibility and usually defined by national (provincial) standards and regulations.

3.7 **Medical education and training responsibilities.** With approval of the strategic training plan for the medical support discipline, Allied Command Operation (ACO) medical staff was agreed as the requirements authority (RA) defining NATO's demands for medical education and training. The Centre of Excellence for Military Medicine (MILMED COE) was assigned the department head (DH) function, responsible for matching the requirements with E&T solutions and ensuring that solutions identified are delivered in the most effective, efficient and affordable manner.

.....
64 Medical personnel involved in intelligence activities may lose their protected status.

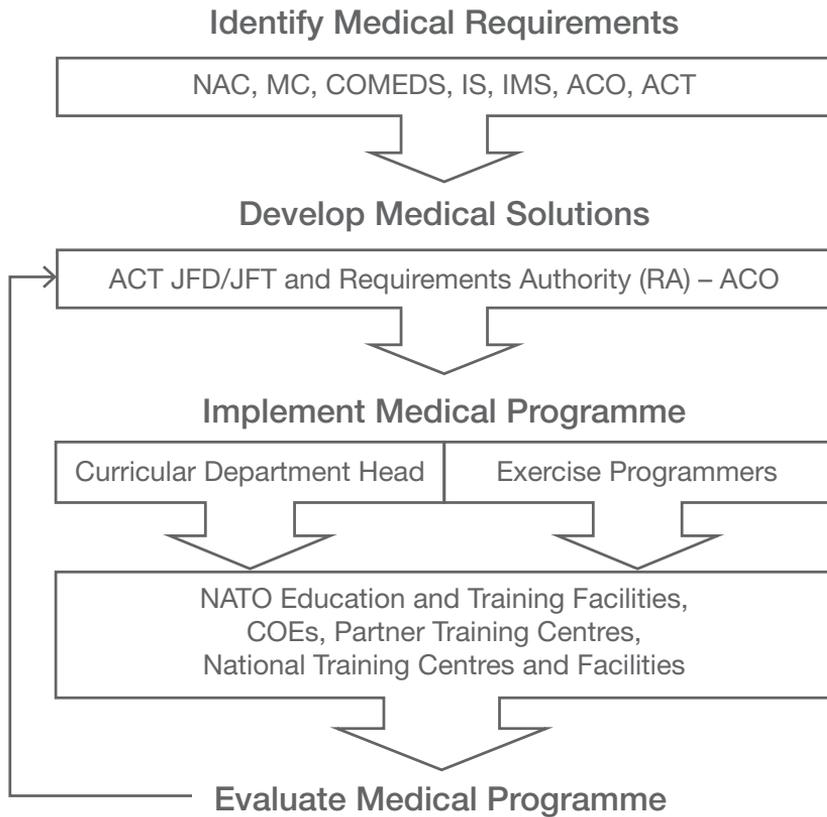


Figure 3-1. Medical support education, training exercises and evaluation (ETEE) responsibilities

3.8 First aid and basic hygiene training for all military personnel. First aid on operations comprises life-saving skills, essential to all military personnel for the purpose of self and buddy care. Stopping accessible serious bleeding and providing the ability to breathe are the first steps to successful resuscitation and stabilization and can significantly improve the likelihood of survival and the outcome of treatment for the injured, wounded or sick. Additionally, all military personnel should have some understanding and training in basic hygiene and force health protection measures to prevent and limit the development and transmission of infectious disease in a deployed environment.

- a. Guidance on first aid and basic hygiene training for all military personnel is given by AMedP-8.15 (STANAG 2122) Requirements for Training in Casualty Care and Basic Hygiene for All Military Personnel.

b. The tactical combat casualty care approach is a well-known training standard which is used in the majority of NATO member nations. However, first aid training is a national responsibility and the respective training standards refer to national legislation and regulations.

3.9 Advanced medical training for non-medical military

personnel. Selected military personnel of forces operating in a setting where access to medical treatment might be hampered, should be trained to independently perform sick call and advanced field care adjusted to a potential austere or remote environment. This may require specific waivers or endorsement by national authorities.

3.10 **Training of healthcare and medical personnel.** Education and training standards for healthcare and medical service personnel of NATO forces should be accepted by all troop contributing nations. In addition, education and training of NATO medical service personnel should meet NATO agreed standards where they exist.

a. Training standards for healthcare personnel in military operations should assure interoperability and a standardized output of medical capabilities. AMedP-8.3 provides the Training Requirements for Health Care Personnel in International Missions, AMedP-22 The Requirements for Military Acute Trauma Care Training, AMedP-1.7 the respective capability matrix and AMedP-1.8 outlines the respective skills.

b. Medical teams should be trained and exercised for the environment in which they are operating. In particular emergency care and surgical teams ought to be trained in performing life, limb and function saving techniques and procedures of damage control resuscitation (DCR) and damage control surgery (DCS) outside a hospital environment under tactical conditions with the respective limited equipment.

c. Depending on their function, the requirements of the units they support and the operational environment, selected medical personnel should be trained in specific medical and military skills.

d. Personnel leading medical units or serving in a medical staff function should be trained, exercised and experienced accordingly. This includes but is not limited to critical incident management, leadership,

organization, coordination and planning skills in the context of the fundamental medical support principles described in MC 326/4.⁶⁵

3.11 **Exercises.** Medical support is complex as well as time critical and procedures differ considerably between nations. Exercises are essential to evaluate and to improve the medical support provided to deployed forces and to enhance cooperation and interoperability among the different services and nations involved.

a. Following the principle “train as you fight”, medical support should be an integral part of all exercises during the pre-deployment training of allied forces and should be given appropriate primacy. The deploying forces must be familiar with the tactics, techniques and procedures (TTPs) that will be used in theatre prior to deployment. Medical personnel must be involved in the exercise design and scenario development process to ensure appropriate medical training objectives are included. The exercising medical capabilities should not be tasked to provide real life medical support to exercising personnel, only to ensure that the medical training goals are not compromised as a result.

b. Critical incident and mass casualty response exercises will increase the awareness for the respective planning and preparedness amongst the chain of command and headquarters staff in particular. The experience they will gain from such exercises will improve their ability to deal with critical and major medical incidents should they occur. Exercise objectives may include amongst others:

- Evaluation of the ability to conduct operational level patient management and aero medical evacuation.
- Identification of interoperability issues affecting multinational support.
- Practicing rebalancing of medical supply and holdings of critical products, such as blood and medical gases.
- Determining the adequacy of emergency care resources.

.....
65 Critical incident management is described in more detail in 3.10 and AMedP-1.10
MEDICAL ASPECTS IN THE MANAGEMENT OF A MAJOR INCIDENT/MASS CASUALTY
SITUATION

- o Identify language communication barriers.
- o Testing of command and control communications connectivity.

3.12 **Evaluation of education and training.** The evaluation of medical courses and trainings may contribute to a common understanding of NATO medical support. Training facilities may request an evaluation by the Centre of Excellence for Military Medicine (MILMED COE) to assure the training provided meets NATO requirements.

Section 4 – Medical evaluation (MEDEVAL)

3.13 The purpose of medical evaluation is to identify weaknesses, gaps and shortfalls in medical support, as well as in medical education and training and to support the certification of medical units. The evaluation of medical and health service support in exercises may help to identify possible shortfalls and to provide Commanders with a risk assessment if any shortfalls in medical support are identified.

3.14 The evaluation of medical units and treatment facilities ensures, that each capability provided meets NATO standards as agreed by the member Nations, irrespective of how it is delivered or by which profession. The evaluation procedure is described in AMedP-1.6 Medical Evaluation Manual; the medical evaluation standards and criteria is in AMedP-1.7 Capability Matrix and AMedP-1.8 Skills Matrix. Nations are responsible for the evaluation and certification of the units they contribute to a multinational force according to AMedP-1.6. The commander is responsible for the certification of the force as a whole. The Centre of Excellence for Military Medicine (MILMED COE) can provide expertise and training in medical evaluation on request.

Section 5 – Medical planning

A. Scope of medical planning

3.15 Medical planning within NATO encompasses different processes of identifying, defining, designing and acquiring all medical support capabilities needed to meet the Alliance mission and force structure requirements.

Medical planning contributes to defence planning and operations planning in accordance with strategic political-military direction. AJMedP-1 (ALLIED JOINT MEDICAL PLANNING DOCTRINE – STANAG 2542) provides further guidance on this topic.

3.16 The NATO defence planning process (NDPP). The NATO defence planning process provides the framework within which national and Alliance defence planning activities can be harmonized to meet agreed targets in the most effective way. It aims to facilitate the timely identification, development and delivery of the necessary range of forces - forces that are interoperable and adequately prepared, equipped, trained and supported to meet the Alliance's level of ambition as well as the associated military and non-military capabilities to undertake the Alliance's full spectrum of missions. The Committee of Chiefs of Medical Services (COMEDS) is responsible for the medical contribution to the overall defence planning effort with the international military staff (IMS) medical advisor being the leader of the NATO defence planning medical task force. The Allied Command Transformation (ACT) Medical Branch provides guidance on all military medical aspects of the defence planning process, while the Allied Command Operations (ACO) medical staff leads the 'gap' analysis based on the offers of the nations and the outcome of the scenarios as well as on the military aspects of civil emergency planning and on nuclear planning.

3.17 The NATO operations planning process (OPP). The operations planning process is guided by AJP-5 Allied Joint Doctrine for the Planning of Operations and by Allied Command Operations Comprehensive Operations Planning Directive (COPD). AJP-5 describes how planning activities and processes are integrated and coordinated to support decision-making and produce plans, orders and directives for all types of operations. The Comprehensive Operations Planning Directive describes the operations planning process from the strategic to the tactical level. It provides the standard structure and content of operation plans (OPLANs) and guidance on the conduct and methods of planning, as well as on identifying the factors to be considered.

3.18 The medical contribution to operations planning is twofold. On the one hand, it is the input of medical expertise to the joint operations planning process. On the other, it is the development of a medical concept and a medical support plan for the operation.^{66,67} The medical support plan should

66 as a Service Support specific sub-para of the Concept of operations (CONOPS)

67 annex QQ of strategic/ operational operations plan (OPLAN)

comprise all relevant information about how medical support will be conducted on the operation. It will usually form an annex (QQ) within the commander's overall operations plan and can be updated or replaced as the operation proceeds to ensure it adapts to changing circumstances and requirements. Early consideration of medical aspects, particularly of medical intelligence and information (MI2) and force health protection (FHP) at each stage of planning is essential to ensure a comprehensive analysis of the mission and development of a plan that can be supported medically.

The medical contribution to the UK planning process



UK 3.1. Permanent Joint Headquarters (PJHQ) is an adaptable and agile headquarters formed in 1996 to command joint military operations and provide politically aware military advice to the Ministry of Defence (MOD). It is at the forefront of effort within UK Defence to further improve joint operational capability. Within the J4 medical cell there are representatives from each of the single-Service commands who plan, direct and support Defence Medical Services (DMS) personnel while they are deployed on joint operations.

UK 3.2. Planning, mounting and executing an operation is an iterative process primarily undertaken by PJHQ, with medical force elements generated from the three single-Service commands and Joint Medical Group. Health service support is provided by single-Service assets working under the overall command of the joint task force headquarters and in line with the operational-level estimate. Medical planning must be integrated within all phases of the planning process described in AJP-5, *Allied Joint Doctrine for the Planning of Operations*, and AJMedP-1, *Allied Joint Medical Planning Doctrine*.

UK 3.3. Where operations occur almost wholly within one operational domain, the responsible single-Service command may provide the operational headquarters elements (in lieu of PJHQ). Operations led by one single-Service command is termed componency, although the operation is likely to be joint in terms of personnel deployed. Planning needs to remain aligned to Allied joint doctrine, although use of relevant environmental medical doctrine (see related documents list) is to be expected.

UK 3.4. The UK planning process is initiated in response to an identified threat, emerging operation or crisis. When activated, a current

commitments team is established within the MOD and the Chief of the Defence Staff (CDS) issues a planning directive to PJHQ and/or the single-Service commands. PJHQ may form a J5-led contingency planning team; this will include J4 medical representation from the outset to make sure that PJHQ medical planners are fully aware of the emerging concept of operations. When the MOD gets political assent to activate an operation, the contingency planning team becomes a J3-led operations team. Normally, specialist advisers (such as medical) will move from the contingency planning team to the operations team.

UK 3.5. CDS then directs the Joint Commander, normally Chief of Joint Operations, and relevant heads of the single-Service commands to plan operations in accordance with specified assumptions, objectives and constraints. PJHQ develops plans (including a medical plan) with the single-Service commands, who will identify the capabilities required to achieve the mission. Assistant Chief of Staff J1/J4's medical estimate, which is undertaken to inform the Joint Commander's mission directive to the joint task force commander will have early influence from DMS Headquarters, Defence Consultant Advisers and the single-Service commands.

UK 3.6. The Joint Commander's mission directive will detail the mission, scale of forces, type of operation and command arrangements. The joint task force commander issues a directive to component commanders outlining the campaign plan. Each level of directive contains a medical component, which becomes progressively more detailed. The medical planning process is a product of:

- medical intelligence assessments;
- reconnaissance;
- the medical estimate;
- medical warning notice (although not strictly part of the planning process, the medical warning notice enables subordinate formations and units to engage in concurrent mission preparation activity); and
- the medical directive.

B. Timelines

3.19 One of the most critical key factors for medical planning is time. Acute emergency care should be provided as soon as possible. Clinical evidence based on accumulated data from previous campaigns and operations, as well as recent academic publications on battlefield trauma identified that the risk of death or permanent impairment can be reduced significantly, if severely injured or wounded personnel receive:

- a. life-saving first response measures to control severe bleeding and maintain airway, breathing and circulation within 10 minutes after injury, wounding or onset of acute symptoms;⁶⁸
- b. advanced resuscitation and pre-hospital emergency care within 1 hour after injury, wounding or onset of acute symptoms;
- c. life, limb and function preserving surgical and resuscitative care not later than 2 hours after injury or wounding.

3.20 Although all timelines are primarily expressed for battle casualties in critical condition, the 10 minute timeline for first aid and the 1 hour timeline for advanced resuscitation should be considered for every acute medical emergency, irrespective if it is trauma related or not. Based on experience from recent operations, the average time to be calculated for life limb and function preserving surgical interventions is approximately 2 hours for each patient. Further surgical, resuscitative, diagnostic and specialist care capabilities may be necessary to stabilize the patient for strategic evacuation. These should be available within 2 hours of tactical evacuation from damage control surgery. Limitations of military health care capabilities related to protection, mobility, supplies, nursing capacity, specialist expertise and technical equipment should be taken into account. Therefore, medical support planning should consider the following:

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68 see chapter 3, section 8 Military Health Care

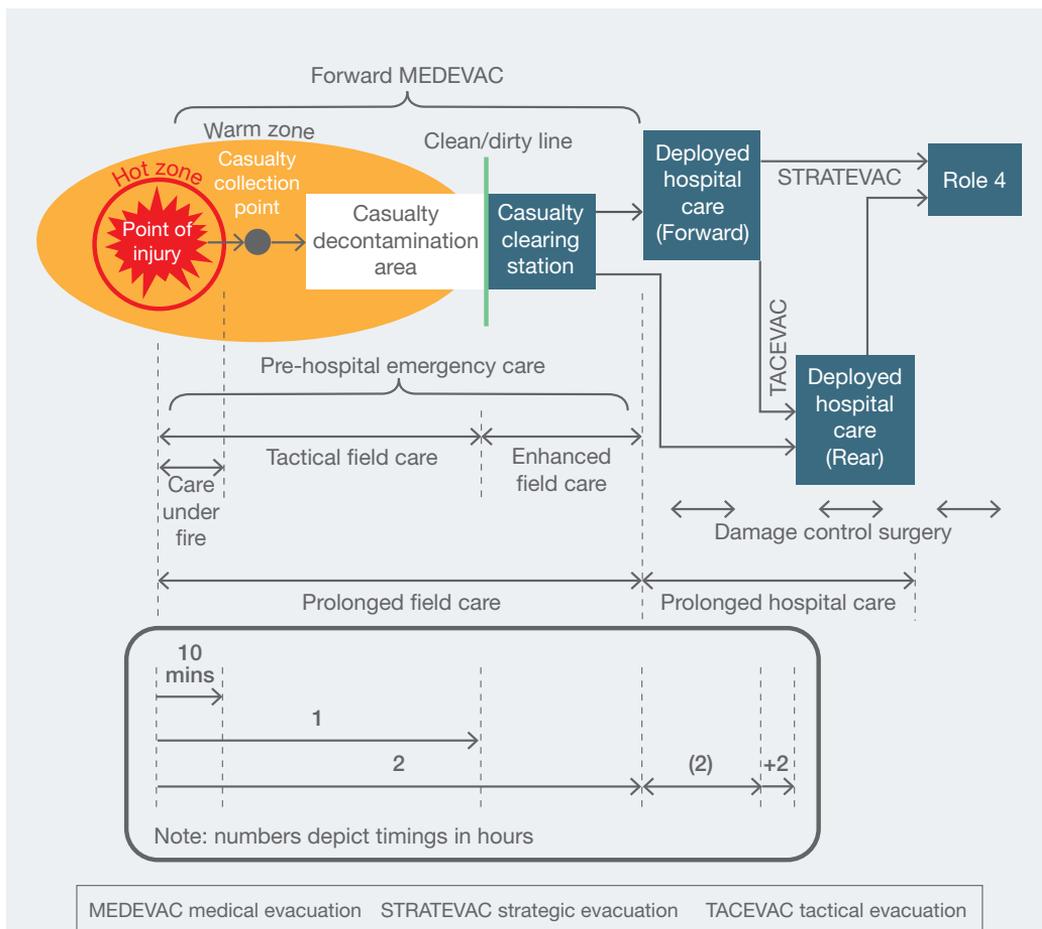
10	All military personnel (medical and non-medical) should be trained and equipped for casualty care at the respective level and for the respective mission to assure effective first aid, bleeding and airway control for the most severely injured casualties within 10 minutes of injury or onset of acute symptoms.
1	Medical service personnel, qualified trained and equipped for emergency care, should be placed with or close enough to the troops they are supporting, to start advanced resuscitation and pre-hospital emergency care within 1 hour of injury or onset of acute symptoms.
2	Medical service personnel qualified trained and equipped for surgical and resuscitative emergency care should be deployed close enough to the troops they are supporting, to complement pre hospital emergency care by life limb and function preserving surgical and resuscitative procedures as soon as possible but not later than 2 hours after injury or insult. For planning purposes, allow circa 2 hours for the conduct of surgery and/or resuscitation.
(+2)	Further surgical, resuscitative, diagnostic and specialist care capabilities necessary to stabilize the patient for strategic evacuation should be made available within 2 hours of tactical evacuation after initial damage control surgery treatment.

Figure 3-2. Medical support planning considerations

UK 3.7. The UK annotates the medical timeline as 10.1.2(2)+2 (as opposed to 10.1.2.(+2)). This is consistent with AJP-4.10(C) Figure 3.2 but makes the damage control surgery planning time (2 hours) more explicit so that planners can calculate total times within the Operational Patient Care Pathway (OPCP) accurately.



UK 3.8. The 10.1.2(2)+2 medical planning guideline, as shown in UK Figure 3.1, is the UK guideline for the provision of care, by time, in the OPCP. The speed and quality of medical care can reduce the mortality and morbidity of operational patients. The ideal is always to deliver expert care as soon as possible after wounding. Evacuation should be to the most appropriate facility to treat the casualty, noting that the most appropriate facility may not necessarily be the closest.



UK Figure 3.1 – The 10.1.2(2)+2 medical planning guideline

UK 3.9. All delays carry clinical risk for patients. It is for commanders, advised by their medical staff, to balance these risks with operational and other factors and to determine whether the risks are acceptable. To achieve this in practice, the 10.1.2(2)+2 medical planning guideline informs decision-making regarding the configuration and location of the medical evacuation and treatment assets needed to provide appropriate medical coverage to the supported force. While primarily expressed as time for trauma patients, the principles also apply to non-trauma patients.

3.21 Adherence to these timelines should be given equal weight to that of other mission essential planning factors when planning and establishing the medical laydown in the area of responsibility as all delays carry a clinical risk for the patients.

3.22 If under specific operational circumstances adherence to these timelines might not be achievable, the Joint Force Commander has to decide together with the troop contributing nations whether or not the risks are acceptable. The decision should be based on a comprehensive risk assessment, advice from the headquarters' medical staff and higher-level direction.

3.23 The headquarters' medical staff must ensure, that commanders have the required evidence on which to base their decisions and a clear understanding of the medical risks they are responsible for. If commanders take elements of the medical planning timeline 'at risk', this should be formally detailed in the theatre operations plan (OPLAN) and/or risk register (or other appropriate document) and every reasonable effort should be made to mitigate the risk. The decision to take the timelines at risk should be regularly reviewed by the commander and operational staffs; and, if or when circumstances allow, the deviation from the timelines should be rectified.

C. Casualty estimation

3.24 Casualty estimates have implications on force structure and medical support, and should be produced early in the planning process. As the estimation of casualty rates is based upon assumptions, it may not provide definitive results. Military medical expertise and sound judgement will be required in interpreting casualty estimation data to determine the medical support plan. Casualty estimates are normally divided into battle casualties (BCs) and diseases and non-battle injuries (DNBIs). The main steps in estimating are the same for both categories:

- a. **Determine the population at risk (PAR).** The troops at risk are determined. The population at risk may be taken as a whole or broken down by force element. Depending on the mission mandate other parties may be included in the population at risk.⁶⁹

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69 Depending on the mission mandate the PAR may include the local population (partial or in total) as well as members of international organizations (IOs), governmental organizations (GOs) or non-governmental organizations (NGOs). The access to medical treatment by allied forces needs to be determined by the MEDDIR on behalf of the Operational Commander and outlined in Medical Rules of Eligibility.

b. **Estimate the rate.** The rate at which casualties will occur may be estimated on a proportional basis across the population at risk expressed as a rate over time, (for example number of casualties/100 or personnel/day). Different rates may be used according to the type of the mission. For operations with typically low casualty estimates, rates may be expressed as total numbers of casualties that might occur from individual incidents rather than from the campaign as a whole. If a proportional rate is used, this must be applied to the population at risk as a whole to give total number of expected casualties. The medical information and communication system should include a tool for casualty estimation, alternatively national tools for casualty rate estimation may be used.

c. **Estimate the profile.** The casualty profile details the relative proportions of each of the different casualty types expected. Force protection measures such as body armour should also be taken into account as these can significantly affect not only the number of casualties but also the location and severity of the injuries received. Estimation of an operationally specific casualty profile requires military judgement, operational analysis and examination of medical databases.

d. **Estimate the casualty flow.** Casualty flow analysis estimates when and where casualties are likely to occur and where they can be evacuated and treated. Casualty flow estimation will help to manage casualty regulation and to prevent individual medical assets being overwhelmed during an engagement. It requires a detailed appreciation of the disposition of the force, the supporting medical plan and the operational activities being conducted.

3.25 **Battle casualties (BCs).** Battle casualties are those that occur as a direct result of combat. If time is pressing it may be appropriate to suggest an initial planning figure or to use generic battle casualty rates instead of a detailed battle casualty estimation, which might be amended later with rates specific to the operation as the planning process proceeds. The operations and planning staff (CJ3/CJ5) have the lead responsibility for the battle casualty rate estimation based on their detailed knowledge of the plan and the information and intelligence upon which it is based. As a result, battle casualty rates may be highly classified. The medical staff (CJMED), the personnel and administration staff (CJ1) as well as the intelligence staff (CJ2) are supporting

the operations and planning staff conducting the battle casualty rate estimation. Battle casualties comprise those:

- Killed in action.
- Captured and missing in action.
- Wounded in action.
- Battle stress casualties.

3.26 Diseases and non-battle injuries (DNBIs). Diseases and non-battle injuries encompass the baseline rate of disease and injury not related to combat.

- a. Diseases and non-battle injuries are the primary cause of health-related restrictions to human performance on operations. Although this occurs in peace and on operations, operational rates are unlikely to mirror peacetime rates exactly due to the different environments and appropriate pre-deployment preparation and selection of personnel fit for employment whilst deployed on the operation.
- b. Both the incidence and the impact of diseases and non-battle injuries are of significant operational importance due to their potential impact on the ability of a force to operate. Expressing disease and non-battle injury rates in terms of number of working days lost can be a particularly effective means to highlight the effect of disease and illness.
- c. The estimation of disease and non-battle injury rates is a responsibility of the medical staff based on historical evidence, an analysis of medical intelligence and information (MI2), an environmental assessment and knowledge of the occupational risks associated with military duties. To establish a sound diseases and non-battle injuries estimate, the medical planner has to take into consideration factors such as the level and nature of activity, acclimatisation, training and living conditions of the deployed personnel.
- d. The estimation of disease and non-battle injury rates requires a clear understanding of the common operational picture (COP), mission characteristics and the operational environment. A detailed analysis of expected sources of diseases and non-battle injuries, based on historical and current data, enables medical planners (with input from the intelligence (CJ2), the planning and the operations (CJ3/5) and all

other staff involved in operations planning) to produce a provisional disease and non-battle injury rate for the operation. This is a technical estimation of the probable rate of diseases and injuries not resulting from combat, which can be expected in the force once the deployment begins.

D. Mass casualty incident response planning

3.27 In a mass casualty incident the number, type or severity of casualties exceeds the treatment capacities and capabilities available.⁷⁰ It is a major medical incident most likely requiring not only action and resources of the medical staff at the affected level of command, it will necessitate cross functional cooperation, support from superior headquarters and their resources and a single command authority, which in most cases will be executed by the commander of the affected force and his staff.

UK 3.10. Major medical incidents are declared locally and reviewed progressively by each level of command (bottom-up). Mass casualty events are declared top-down by, as a minimum, the divisional Commander Medical.



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3.28 The potential operational impact of mass casualty incidents has to be considered. A series of suitable plans should be developed in advance for each of the scenarios assessed as likely at the tactical level. These plans should then be briefed and rehearsed and integrated into a theatre-wide mass casualty incident response plan. This is particularly important when casualty estimates for a mission are low and thus medical support capabilities are not configured to cope with large numbers of severely injured casualties and reserve medical capacities are typically limited.

E. Medical planning for operations under chemical, biological, radiological or nuclear threat

3.29 The involvement of chemical, biological radiological and nuclear weapons can quickly change the character of an operation or campaign. It may cause large-scale shifts in strategic and operational objectives or could alter the execution of plans significantly. Possible implications of a chemical, biological radiological and nuclear contamination should carefully

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70 See also chapter 3 section 10 Medical Critical Incident Management and AMedP-1.10 Medical Aspects in the Management of a Major Incident/Mass Casualty Situation

be considered in all planning and decision-making processes. For medical planning these are the following:

- a. Incidents caused by an (intended or accidental) release of chemical, biological radiological and nuclear components will likely produce a large number of casualties.
- b. The types of casualties from a chemical, biological radiological or nuclear incident are not those normally managed in a military medical support system.
- c. Casualties resulting from chemical, biological radiological and nuclear contamination or exposure (including remains, clothing, and personal gear) may constitute a significant hazard to the medical personnel and facilities charged with caring for them.
- d. Medical treatment facilities may have to operate in areas that are contaminated, or with restrictions that limit movement of personnel and materiel into, and out of, the medical treatment facility.
- e. Medical support will be required to continue for conventional and psychological casualties as well as for casualties resulting from chemical, biological radiological and nuclear contamination or exposure.

3.30 Although the planning process remains the same across the range of military operations, medical planners are facing some difficult challenges related to a (potentially) contaminated operational environment. The most critical challenges being:

- a. Defining the requirements for adequate force protection, veterinary services, general medical support services and patient management in a potentially contaminated environment (covering shelter, food, water, environmental and occupational health, medical surveillance, medical prophylaxis, medical pre-treatments, immunizations, post-exposure therapeutics, antidotes, and fluids).
- b. Casualty estimation related to chemical, biological radiological and nuclear exposure. Even if the operations/planning (CJ3/CJ5) staff is in lead, this requires chemical, biological radiological and nuclear warfare and medical subject matter expertise.

3.31 Further guidance on medical support to operations in a CBRN environment can be found in AJMedP-7 Allied Joint Medical Doctrine for Medical Support to CBRN Defense Operations (STANAG 2596). More details on the estimation of casualties resulting from chemical, biological radiological and nuclear attacks are provided by AMedP-7.5 NATO Planning Guide for the Estimation Of CBRN Casualties and AMedP-7.5.1 Technical Reference Manual to the NATO Planning Guide for the Estimation Of CBRN Casualties (STANAG 2553 ED2)

UK 3.11. The UK has a risk-based approach to CBRN hazards and threats with medical support being the ultimate mitigation. CBRN medical planning therefore has a deployed (core) CBRN medical support capability on all missions proportionate to the risk, with threat or mission-specific enhancements.



Section 6 – Preventive medicine, environmental health and veterinary services⁷¹

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3.32 **Preventive medicine.** Preventive medicine comprises the anticipation, prevention and control of communicable diseases, illnesses, and exposure to endemic, occupational and environmental threats. These threats include non-battle injuries, environmental and occupational exposures, weapons of mass destruction, food- and waterborne diseases and intoxications and other threats to the health and readiness of the deployed force.

3.33 **Environmental health and veterinary services.** Environmental health and veterinary services are an integral part of preventive medicine.^{72,73} Environmental Health and Veterinary Services encompass the prevention of zoonotic disease transmission, food and water safety and field sanitation.

71 Preventive Medicine, Environmental Health and Veterinary Services are part of FHP, described in more detail in AJMedP-4 Allied Joint Medical Doctrine for Force Health Protection, and closely related to MI2 and MHC.

72 The welfare and care of military working animals is not a FHP related environmental health issue, however it is another veterinary service responsibility with additional requirements, as described in STANAG 2538 - AMedP-8.4 Animal Care and Welfare and Veterinary Support During All Phases of Military Deployments.

73 Food chemistry is also integral part of preventive medicine. Food chemists and veterinarians contribute equally to food and water safety.

3.34 Preventive medicine aims to mitigate infectious, endemic, environmental, physio-chemical, occupational, industrial, and operational health risks. It covers the following spectrum of key tasks:

- identifying risks and threats from terrain, climate, endemic disease, industrial and occupational hazards to the health of all personnel deployed in a specific area of operations;
- identifying necessary preventive measures and advising commanders on their implementation, to include the development of a theatre policy on immunization and prophylaxis measures, acclimatization and appropriate training of all personnel, especially on measures to prevent food, water and vector-borne diseases/intoxications;
- advising on and auditing the quality of water and food sources;
- auditing and supervising implemented measures;
- performing vector and pest control;
- gathering of epidemiological and other medical data and information;
- advising commanders on the overall health risks and threats, and the limitations they may place on the campaign by their impact on force readiness.

3.35 Preventive medicine requires specific corresponding (chemical/microbiological) laboratory capabilities. Preventive medicine measures are probably the most essential contribution to force health protection. Their implementation has to start prior to deployment and to continue, irrespective of changes in the conduct of the operation, well into the post-deployment period.

3.36 The organization to undertake preventive medicine measures must extend from theatre headquarters down to unit level and below. Its shape and size will be mission dependant, but will include, as a minimum, advice on individual preventive medicine at every level of operational command.

Section 7 – Deployment health surveillance, disease and casualty reporting⁷⁴

3.37 Deployment health surveillance aims to provide a key indication of the forces health status and an estimate of its impact on manpower and working day losses. Surveillance and reporting may also identify CBRN weapons involvement. Deployment health surveillance is intended to serve as a sentinel warning system to trigger further investigation, implement preventive countermeasures or other command actions needed to reduce the adverse impacts of health threats. A comprehensive disease and non-battle injury analysis can produce more effective preventive medicine measures, including recommended policy on immunisation, prophylaxis and personal health education. It can also be a driving factor in the size and capability of medical resources required in different scenarios.

3.38 Deployment health surveillance comprises the routine standardized tracking of disease and injury incidence. This includes:

- identifying the population at risk,
- identifying and assessing potential occupational and environmental health (OEH) hazards,
- documenting occupational, environmental, chemical, biological radiological and nuclear health risks or exposures,
- monitoring real time health outcomes and reporting of disease and non-battle injury (DNBI) and battle casualty (BC) rates during the deployment in a timely manner.
- investigation of suspected disease outbreaks or clusters of illness amongst deployed personnel.

74 Deployment Health Surveillance, Disease and Casualty Reporting are part of FHP, described in more detail in AJMedP-4 ALLIED JOINT MEDICAL DOCTRINE FOR FORCE HEALTH PROTECTION and closely related to MI2

3.39 A Deployment Health Surveillance Capability (DHSC) with the respective knowledge and skillset to rapidly respond, investigate and coordinate specific risk management countermeasures could be critical to mitigate a wide-spread degradation of mission readiness, particularly in suspected or actual outbreaks and illness clusters. Depending on the route of exposure and the degree of susceptibility, illness or death in local human and animal populations can have an impact on the deployed force. If a host nation health surveillance system is still operational, a close collaboration of NATO and the HN's health surveillance system should be supported and implemented and corrective actions coordinated at all levels.

3.40 A NATO-sponsored deployment health surveillance system (EPINATO 2) is utilised in all NATO operations and exercises and is managed by the medical staff of deployed forces at all levels. It allows the chain of command to establish a database of health surveillance information that assists medical support planning for both current and future operations.

- a. EPINATO 2 involves the monitoring, collection, and evaluation of illness/injury data on all deployed NATO military personnel who report for medical treatment both on an outpatient and inpatient basis (as described in STANAG 2535 – AmedP-4.1"Deployment Health Surveillance"). It is also set to run in conjunction with other national reporting systems.
- b. Epidemiological data reported to EPINATO 2 are collated and analysed for command and theatre-level use. Periodic epidemiological analysis and relevant findings are reported as feedback to the reporting units. Medical staff and commanders thus have reliable, quantitative planning and resource allocation data regarding medical support and useful trend analyses by illness and injury category.
- c. Through the quantitative identification of morbidity causes and qualitative measuring of their effect, the evaluation of both occurrences and consequences is the prime objective of this surveillance system. Findings may then support appropriate response actions, both in the short and long term.

Section 8 – Provision of military health care

A. The continuum of care

3.41 Military health care is delivered through a patient-centred cycle with an operations and a firm base related section. The operations section includes all deployed medical support capabilities in the area of operations. The firm base section includes a nation's permanent medical support installations and treatment facilities, operated or contracted by its military medical service, irrespective where they are located: on the nations own territory or in a partner country.

3.42 Deployed operational military health care includes all functions and activities essential to support health promotion and disease prevention in the area of operations, to preserve life, limb and function, restore and stabilize the physiological condition of patients for strategic medical evacuation and to ensure a standard of care equating to best medical practice. Military health care at the firm base additionally includes functions and activities essential to enhance health readiness and resilience of all military personnel, but also to promote healing, support rehabilitation and enable patients to return to duty or to prepare for discharge from military service.

3.43 The cycle of military health care follows a continuum of care in a progressive manner, from self and buddy care to definitive treatment, rehabilitation and return to duty. However, the continuum of care is a medical organizational pattern and not a linear pathway that has to be followed in a sequence (see figure 3-3). Roles of care may be bypassed due to patients' needs and operational factors like the workload of medical treatment facilities. The continuum of care may be interrupted and the required capability not always be available when needed. If evacuation is not practicable, medical capabilities might need to stabilize and hold patients for several days. This can be a challenge, requiring to adapt emergency procedures and clinical specialist techniques to the respective medical treatment facilities' or assets' limited resources for prolonged casualty care and necessitating exceptional training and skills as well as specific waivers or endorsement by national authorities.

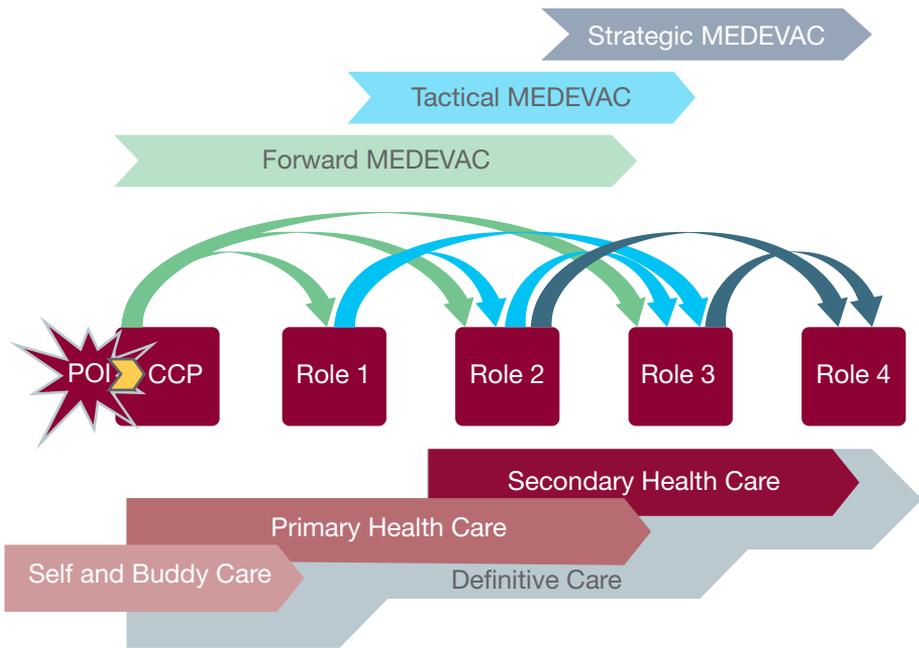


Figure 3-3. The continuum of care

B. Self and buddy care

3.44 Self and buddy care encompasses all measures of military health care not delivered by dedicated medical service personnel. This includes individual hygiene and health promotion, the handling of minor injuries or illness and first aid. All military personnel on NATO operations should be proficient in performing the essential basics of individual hygiene and health promotion as determined by the commander. Care of minor injuries or illness should be applied corresponding to the respective individual medical skills of the caregiver and in accordance with national regulations and protocols. In emergency response first aid is to be applied as described in Annex B. All military personnel should be trained accordingly and able to provide care under fire and tactical field care.⁷⁵ Selected military personnel should be able to provide advanced and prolonged field care.⁷⁶ An individual first aid kit (IFAK) should be provided to all military personnel. Tactical medical supplies for advanced and prolonged field care may be distributed to non-medical military personnel with the respective medical skills.

⁷⁵ See Annex B and AMEDP-8.15 Requirements For Training in Casualty Care and Basic Hygiene for All Military Personnel

⁷⁶ Advanced or prolonged field care procedures refer to national regulations and may require specific waivers or endorsements by national authorities, support by telemedicine and approval by a physician dedicated to the respective unit.

C. Primary health care

3.45 Primary health care is delivered by or under supervision of accredited medical service personnel. Primary health care encompasses comprehensive first contact diagnosis and treatment of trauma and of acute or chronic illness, but also the management of personnel with minor medical problems/ complains and injuries for immediate return to duty, continuing out patient care, health promotion, disease prevention, patient education and counselling.

3.46 The spectrum of deployed primary health care encompasses triage, pre-hospital emergency care and routine sick call.⁷⁷ In accordance with the mission, primary health care may also include but is not limited to:

- casualty collection from a casualty collection point;
- essential diagnostics and laboratory;
- initial mental health care;
- medical evacuation (MEDEVAC);
- patient holding (with a minimal capacity);
- basic physiotherapy and rehabilitation;
- advice on occupational and preventive health care issues;
- basic dental care.^{78 79}

UK 3.12. The UK views primary health care and pre-hospital emergency care as two separate components. UK-provided primary health care consists of general medical practitioner services, community mental health, rehabilitation, occupational health and oral health services.



3.47 If pre-hospital emergency care (PHEC) needs to be provided, this comprises proficient resuscitative procedures to restore, stabilize and maintain vital physiological functions of patients in critical clinical condition, such as damage control resuscitation (DCR) for trauma or other haemorrhage related emergencies. Damage control resuscitation uses advanced trauma life support

77 Triage categories can be found in Annex C

78 Essential diagnostics may include: basic clinical-chemical field laboratory, blood cell count, monitoring of blood oxygenation, heartrate, blood pressure, body temperature, electrocardiography, basic field ultrasound

79 A R1 capability may not cover the whole primary health care spectrum. Essential diagnostics and laboratory, patient holding, initial mental health care, physiotherapy/ rehabilitation, casualty collection, medical evacuation, advice on occupational and preventive health care issues or basic dental care may not necessarily be provided by every R1.

techniques to minimize blood loss and sustain circulation, to secure the airway and support breathing and tissue oxygenation, to provide effective pain management and prevent wound infection and hypothermia.⁸⁰

3.48 If a casualty cannot receive secondary health care within the predetermined timelines, pre-hospital emergency care may need to be adapted from civil clinical peacetime standards to emergency procedures for prolonged casualty care. This may include employment of blood products and surgical emergency care techniques usually not associated with primary health care and refers to national regulations and the qualifications/credentials of the pre-hospital emergency care providers.⁸¹

UK 3.13. The UK describes DCR as the approach to a critically injured patient aiming to mitigate the coagulopathy of trauma and enable damage control surgery (DCS), rather than to arbitrarily restore physiologically normal vital signs. DCR comprises a suite of techniques including hypotensive resuscitation, restriction of crystalloid infusion, temperature control, provision of whole blood or balanced component therapy and DCS delivered by a multidisciplinary team.



D. Secondary health care

3.49 Secondary health care (SHC) encompasses specialized clinical diagnosis and treatment beyond the capabilities of primary health care.⁸² Deployed secondary health care capabilities may limit the need for a repatriation of personnel, but also ensure adequate survivability for strategic medical evacuation, if necessary. Routine access to secondary healthcare will normally be by referral, urgent access via emergency care providers.

3.50 If emergency hospital and specialist care is required on operations, the initial effort may rather be to preserve life, limb and function to the greatest extent possible than to provide definitive treatment. This depends on the specific pattern of injury, the general condition of the patient and the tactical environment. Highly mobile surgical resuscitation teams may need to be

80 This includes the application of blood products

81 Due to differing national standards, some surgical emergency procedures (such as cricothyroidotomy, application of chest tubes, clamshell thoracotomy, skull trepanation) may be performed by emergency physicians in one nation but require a surgeon in others.

82 Such as, x-ray, CT scan, MRI, specialized surgery, intensive care, eye, ear nose and throat specialists, dermatology, gynaecology, paediatrics food-chemistry, tropical and veterinary medicine

deployed forward into a semi permissive tactical environment and patients may receive emergency treatment through a series of interventions, complementing resuscitative treatment with generally increasing medical functionality, including:

- a. Damage Control Surgery (DCS), a surgical approach where the completeness of immediate surgical repair might be sacrificed to achieve haemorrhage and contamination control and to restore circulation and perfusion;
- b. Diagnostics, Surgery and Specialist Care essential to prepare patients for strategic MEDEVAC which should be provided as soon as physiological and other relevant parameters have been restored as necessary for further treatment;
- c. Deployable clinical functions essential to enhance and complement specialist and hospital care according to operational requirements and mission needs which should support best medical practice in theatre and reduce the need for repatriation of military personnel.

UK 3.14. DCS is not 'definitive', and further procedure(s) will be required when physiological and other relevant parameters have been restored to as close to normal as possible. Further necessary surgery will be performed as required until 'definitive' surgery can be undertaken. Definitive surgery may involve one further operation or may require multiple returns to the operating theatre in the deployed setting and/or after medical evacuation; for example, sequential debridement of an injured limb. Definitive surgery is typically provided in the home base (Role 4).



UK 3.15. Patients should not undergo medical evacuation unless adequate debridement has been undertaken and the patient is physiologically stable. When assessing the requirement for further surgery in the forward medical treatment facility, medical staff also need to consider:

- the surgical competencies/skill mix required/available;
- extended evacuation timelines that may mandate further surgical interventions (for example, bowel anastomosis or stoma after primary damage control laparotomy or vascular reconstruction after primary DCS shunting of an injured vessel);

- appropriate definitive surgery to permit deliberate retention in-theatre; and
- appropriate definitive surgery for patients ineligible for evacuation out of theatre.

E. Definitive health care

3.51 Definitive Health Care is the closing link of the military health care cycle. It aims to restore mental and physical capability to the highest degree possible, to enable patients to return to duty or to prepare patients for discharge from service for medical reasons. It embraces the full spectrum of primary and secondary health care.

Section 9 – Patient evacuation coordination

3.52 Patient evacuation coordination should ensure the most effective use of medical treatment and evacuation resources, and that all patients receive appropriate care as fast as possible. Depending on the size and complexity of the area of operations, a patient evacuation coordination cell (PECC) might need to be established at different levels of command in the commander's combined joint operations centre.⁸³ Patient evacuation coordination personnel must have direct access to clinical advice, must be qualified and able to conduct operations 24/7. This includes the following functions:

- to monitor the current common operational picture.
- to maintain the medical operational picture.
- to manage the flow of patients.
- to provide timely and accurate tracking information throughout the entire medical evacuation and treatment chain.

3.53 Long distance medical evacuation of patients which can only be stabilized for a limited time may require specific capabilities, such as in transit surgery and critical care. Resources, manning and procedures might be

⁸³ See also para 2.4ff The Combined Joint Medical Branch and chapter 2, section 5. Medical Evacuation

limited by the characteristics of the available platform, and differ from nation to nation. Patient evacuation planning and coordination must therefore consider respective alternative evacuation routes and treatment protocols.

3.16 The UK separates the coordination of patient evacuation into operational coordination (by a PECC) and tactical coordination.



In the land environment, the latter will be carried out by the headquarters that commands and controls the evacuation assets which, for ground assets, will be the medical regiment attached to a brigade.

A. The blue light matrix

3.54 The blue-light matrix is part of the medical operational picture and provides a dynamic overlay, which is highlighting the medical support coverage in the area of operations and determining the location of medical assets on the ground, their capabilities, capacity and readiness status. The number, localization, readiness and type of evacuation assets available has a direct impact on the length of time medical providers have to hold patients before evacuation is available and on the time patients need to arrive at their destination. The blue light matrix is an important tool to support effective patient evacuation coordination.⁸⁴

B. Patient flow management

3.55 Patient Flow Management is a dynamic process, directing, controlling and coordinating the transfer of patients within and outside an area of operations from the point of injury or onset of disease to definitive treatment facilities. Those can be in the patient's home nation, in other NATO countries or in an out-of-theatre firm base installation.⁸⁵

3.56 Critical factors to be considered for patient flow management include:

- The clinical need of the individual patient.
- The operational and natural environment.

84 If not included in the blue light matrix a similar tool/matrix is required regarding the status/capacities of MTFs

85 Even if strategic MEDEVAC is a national responsibility, the PECC might be asked to assist

- The availability of medical capabilities for forward, tactical and strategic medical evacuation.
- The variant and range of medical evacuation platforms.
- The location and capacities of medical treatment facilities, their specialist capabilities, medical equipment status and staffing levels.
- The current bed occupancy status at each medical treatment facility including any surgical backlog.
- The location, number and clinical condition of patients.
- The tactical situation associated risk to patients or evacuation assets.
- Communication management in the medical emergency response chain.
- The theatre patient return policy.⁸⁶

3.57 The flow of casualties should follow the continuum of care. However, this is a medical organizational pattern and not a linear pathway that has to be followed in a sequence. Timely evacuation should be to the most appropriate medical treatment facility primarily based on clinical imperatives, but also tempered by the operational environment, noting that the most appropriate facility may not necessarily be the closest. Operational imperatives (such as the casualty load in major joint operations) may necessitate to consider contingency and emergency plans and procedures for prolonged casualty care and casualty evacuation.

3.58 Aeromedical evacuation (AE) is the mode of patient transportation with the most limitations and restrictions and the highest safety, support and infrastructure requirements.⁸⁷ The coordination of tactical and strategic air movement is a responsibility of the NATO theatre movement agencies and air commands. Air commands will normally establish an aeromedical evacuation control centre (AECC) within their staff, while Nations often

.....
⁸⁶ A command decision, indicating the maximum period of non-effectiveness before patients have either to return to duty or to their home country for further treatment and recovery

⁸⁷ See also chapter 2 section 5 Medical Evacuation

use a national patient coordination centre (NPCC) to coordinate medical evacuation requirements with airlift capability, assign medical missions to the appropriate aero medical evacuation elements in the system and to monitor patient movement activities. Close coordination and communication between all elements involved in aeromedical evacuation with the theatre patient evacuation coordination cell is necessary to ensure a comprehensive monitoring and coordination of all demands and capacities for and of patient treatment and movement.

3.59 Medical evacuation, particularly aeromedical evacuation of patients with known, suspected or highly contagious infections may be severely impeded due to international health regulations or nationally imposed restrictions of movement even if patient movement would be required to safeguard the force. The employment of specialist teams and equipment such as air transportable isolators, may reduce the risk of contaminating critical infrastructure and resources and of spreading contagious diseases to an acceptable minimum.⁸⁸ Close coordination between the joint force commander's staff and civil authorities as well as force and public health protection will be required for infectious patient evacuation, notably in outbreak response.

C. Patient tracking

3.60 Patient tracking is the precise and continuous monitoring of the location, intended destination and clinical condition of each individual patient within the continuum of care. In the multinational environment, patient tracking may present challenges such as language barriers, communication and information systems compatibility or differing national tracking processes.

Section 10 – Medical critical incident management

3.61 NATO medical critical incident management is described in more detail in AMedP-1.10 Medical Aspects in the Management of a Major Incident/Mass Casualty Situation. Medical critical incident management is a comprehensive approach based on the mnemonic CCSCATTTTER⁸⁹ (see Annex C) to respond to an incident requiring extraordinary medical resources and procedures.

88 See also AJMedP-7 Allied Joint Doctrine For Medical Support to CBRN Operations

89 Command and Control, Safety, Communications, Assess, Triage, Treatment, Transport, Exploit, Recover

- a. A **Critical incident** is a natural or manmade event with a critical impact on the mission, on the security in the area where it occurs, on infrastructure, health and environment, even if it might not directly result in high numbers of casualties.
- b. A **Major medical incident (MMI)** is a critical incident where the number, severity, or type of medical cases to treat, or its location, requires extraordinary resources and procedures. A MMI is usually declared 'bottom up', from each level of command considering the need to employ extraordinary resources and procedures.
- c. A **Mass casualty incident** is an MMI, overwhelming the available medical capabilities and/or capacities despite the employment of extraordinary measures. A mass casualty incident may have a significant impact on current operations up to a forced break in the conduct of operations and therefore needs in most cases to be managed 'top down'. The principles of treatment might need to be changed from focusing on the individual needs of a particular patient to achieving the best outcome for the greatest number of patients. Commanders bear the ultimate responsibility to plan for and decide on these issues with advice and support from their medical staff.

3.62 Complex emergencies, incidents or disasters necessitate employing innovative and varied event responses. However, some events such as the release of chemical, biological radiological and nuclear agents may rapidly spread their harmful effects which could quickly overwhelm even the most prepared forces and require immediate action.

3.63 Effective management shows the theatre ability to respond as a whole to a critical incident by cross-border mobilisation and coordination of resources. Medical considerations include, but are not limited to, medical assessment/detection of the event, recommendations on force protection (decontamination, vaccines and antidotes), medical countermeasures, psychological support, epidemiological surveillance, victim identification, and health education.

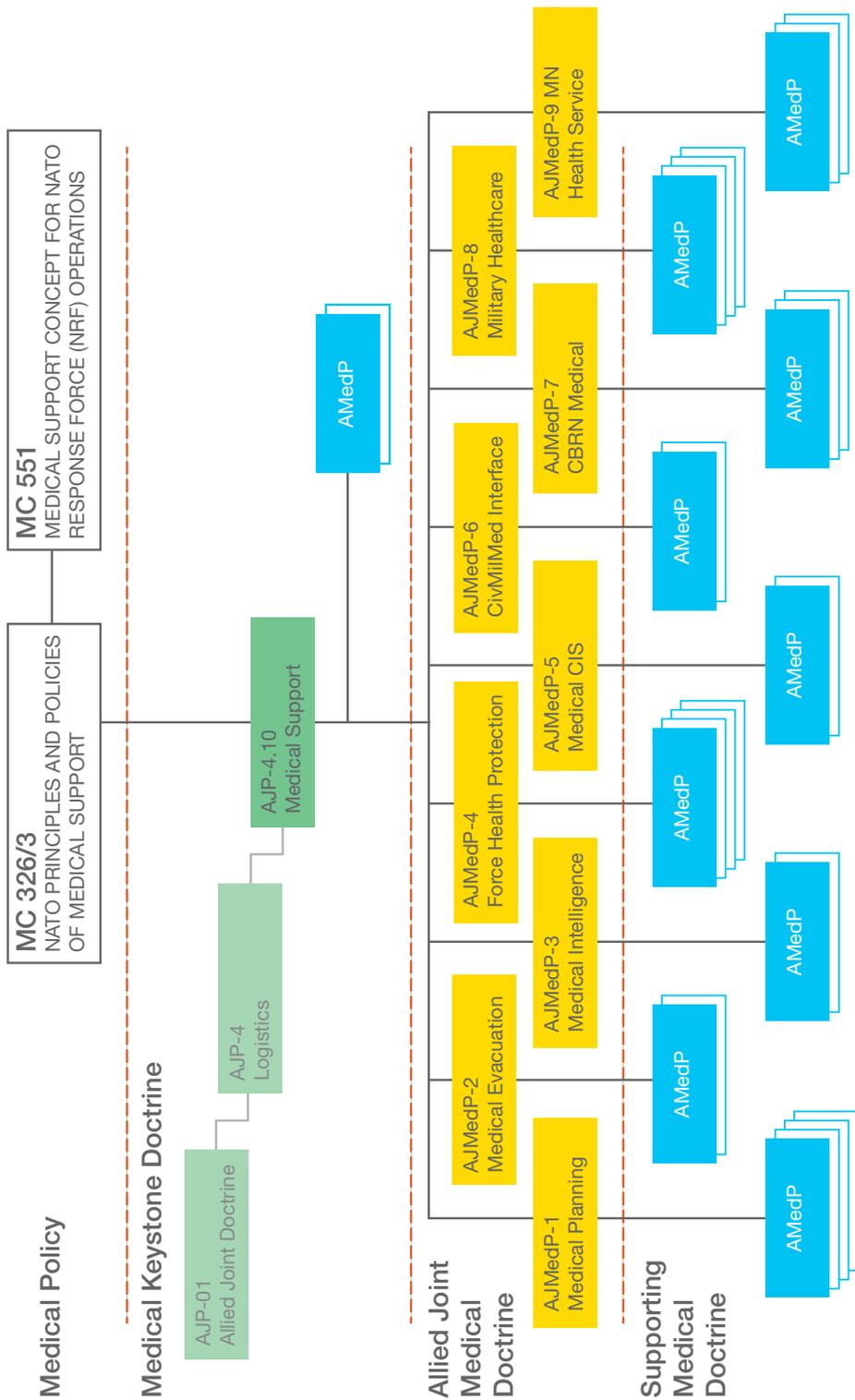
Key points



- Medical planning encompasses identifying, defining, designing and generating medical support capabilities needed to meet the mission and force structure requirements.
- **UK.** The UK planning process is initiated in response to an identified threat, emerging operation or crisis and will have medical representation from the outset.
- One of the most critical key factors for medical planning is time. The speed and quality of medical care can reduce the mortality and morbidity of operational patients.
- **UK.** Evacuation should be to the most appropriate facility to treat the casualty, noting that this may not necessarily be the closest.
- **UK.** All delays carry clinical risk. It is for commanders to balance these with other operational factors to determine whether the risks are acceptable.

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Medical doctrine architecture



A

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Annex B

First aid and combat casualty care⁹⁰

First aid is basic medical care given to someone suffering a sudden illness or injury prior to professional medical help being available. First aid aims to preserve life, prevent the casualty's condition from worsening, or to promote recovery. By the Hartford Consensus critical incident response experts 2013 established the mnemonic T.H.RE.A.T approach for first aid in unsafe environments and mass casualty events:

- **T**hreat control
- **H**emorrhage control
- **R**apid **e**xtraction to safety
- **A**ssessment and aid by medically trained personnel
- **T**ransport to appropriate level of care

Battlefield first aid or combat casualty care takes into account the specific needs of treating wounded combatants and non-combatants during armed conflict. The principles of care are the same, but preferences and procedures may differ depending on the situation, the environment, the condition of the patient, the skills and experience of the caregiver and the resources available.

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90 This annex will be deleted from AJP 4.10 as soon as a sound description of first aid – combat casualty care is provided within the framework of AJMedP-8 Allied Joint Doctrine on Military Health Care and its subordinated publications

Battlefield first Aid – Combat Casualty Care	
Immedicate, direct threat: combat, hostile, or non permissive environment	<ul style="list-style-type: none"> control of obvious and accessible critical bleeding rapid casualty extraction from the "hot zone" (Care under Fire)
No direct threat: uncertain, semi permissive or safe environment	<ul style="list-style-type: none"> minimize bleeding, obtain airways open, support breathing and circulation avoid further deterioration of the casualty's condition resulting from environmental hazards. (Tactical Field Care)
First responders with advanced skills and the respective equipment can perform casualty care techniques usually reserved for medical professionals to stabilize casualties in critical condition for and during evacuation (Evacuation Care) or, if the continuum of care is compromised, to maintain their vital functions over time with the available resources (Prolonged Field Care)	

Figure B-1. Battlefield first aid – combat casualty care

B

Annex C

Medical incident management

Mnemonic CCSCATTTER:

Command and control (C2): rests with the battle-space owner, both in critical incident response planning and execution, but requires medical advice to the incident commander and control over the medical response to the incident.

Safety: includes the awareness of threats to the safety of first responders, the scene, and the casualties and the use of individual protective equipment like covers, helmets, eye protection, body armour, protective outer layers against chemical, biological, radiological or nuclear agents etc. Clearance of explosives, additional force protection, special equipment for the extraction of wounded/injured personnel or extinction of fires might have to be initiated and coordinated before medical personnel can take care of the patients.

Communications: enabling all authorities and organizations involved in critical incident management to cooperate and effectively respond to the incident.

Assess: evaluating the scene to determine the cause of the incident, the number and medical condition of casualties, and the initial medical response to the incident.

Triage: determining the priority for initial and further treatment or medical evacuation of casualties after a primary survey. This is a dynamic and repeated process. The principles of triage must be endorsed by the incident commander with the declaration of a mass casualty incident. (see figure B-1)

Treatment: Casualty care according to national / NATO standards.

Transport: Medical evacuation to clear the scene of casualties.

Exploit: collection and retention of evidence including medical evidence to allow the chain of command to exploit the response to the incident.

Recover: restoration of the response system to the pre-incident state plus the immediate after-action analysis to learn lessons from the incident.

Category and colour	Implicated actions	Characteristics
T1 IMMEDIATE RED	immediate life-saving interventions rapid MEDEVAC	Patients with life threatening injuries but a high chance of survival when treated
T2 URGENT YELLOW	stabilizing treatment reassessment fast MEDEVAC	Patients with severe injuries but not in immediate life threatening condition
T3 MINIMAL GREEN	first aid supplies reassessment transport	Patient with minor injuries able to care for themselves
DEAD WHITE on BLACK	No treatment, collect protect transport	Patients declared dead by a medical professional or with non-survivable injuries and no vital signs
T4 EXPECTANT BLUE on WHITE	supportive pain and anxiolytic treatment only reassessment transport	Patients expected to die only to be used in mass casualty incidents and when authorized by the Commander or MEDAD/MEDDIR

Figure C-1. Triage categories

Annex D

Medical care levels in maritime operations

- **Role 1 – Level 1.** Nationally mandated minimum medical requirements for that platform to provide primary care, triage, first aid, pre-hospital emergency care, evacuation. This will encompass minimum International Maritime Organization (IMO) standards and comply with relevant STANAGS.
- **Role 1 – Level 2.** Same as Level 1 but would normally include addition of a ship's doctor. This is the maritime equivalent to R1.
- **Role 2 – Level 3.** Same as level 2 but with access to specialist doctor-led resuscitation and damage control surgery within clinical timelines. If embarked it might include one surgical team and one operating table, basic laboratory and imaging capability, limited intensive care and a small holding capacity. This is the maritime equivalent to R2F/R2B.
- **Role 2 – Level 4.** Same as level 3 but with access to surgery directed at the repair of local damage caused by wounding, rather than correcting the generalized effects within clinical timelines. If embarked it might typically include up to two operating tables, two surgical teams, four intensive care beds, diagnostic capacity including x-ray, basic lab, blood-bank, pharmacy, sterilization capacity, dentistry, a moderate holding capacity for nursed patients and access to specialist medevac capability. This is the maritime equivalent to R2E.
- **Role 3 – Level 5.** Same as level 4 but with access to specialist surgery within clinical timelines. It is mission tailored but typically might include up to four operating tables, four surgical teams, eight intensive care beds, diagnostic capacity including Computerized Tomography (CT) scanner, oxygen production capacity, PECC, dedicated MEDEVAC capability, and a larger holding capacity for nursed patients. This is the maritime equivalent to R3.

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D

Annex E

Lexicon Part 1 – Acronyms and abbreviations

A

AE	Aeromedical Evacuation
AECC	AE Control Centre
AJP	Allied Joint Publication
AJMedP	Allied Joint Medical Publication
AMedP	Allied Medical Publication
AOR	Area of Responsibility
AOO	Area of Operations

B

BC	Battle Casualty
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C

C2	Command and Control
C4I	command, control, communications, computers and information
CASEVAC	Casualty Evacuation
CBRN	Chemical, Biological Radiological, Nuclear
CC	Component Command
CCAST	Critical Care Air Support Team
CCATT	Critical Care Air Transport Team
CCP	Casualty Collection Point
CDS	Chief of the Defence Staff
CFSG	Commando Forward Surgical Group
CIHSO	Continuous Improvement of Healthcare Support on Operations
CIMIC	Civil-Military Cooperation
CJ	Combined Joint
CJMED	Combined Joint Medical
COM	Commander
COMEDS	Committee of the Chiefs of Military Medical Services in NATO
CRSV	conflict-related sexual violence
CSAR	Combat Search and Rescue
CSU	Casualty Staging Unit
CT	Computed Tomography

D

DCMH	Department of Community Mental Health
DCR	Damage Control Resuscitation
DCS	Damage Control Surgery
DHC	deployed hospital care
DMS	Defence Medical Services
DNRC	Defence National Rehabilitation Centre
DOB	Deployment Operating Base
DPHC	Defence Primary Healthcare
DR	Disaster Relief

E

EIH	Environmental and Industrial Hazards
EU	European Union

F

FHP	Force Health Protection
FP	Force Protection

G

GDP	Good Distribution Practice
GO	Governmental Organisation

H

HA	Humanitarian Assistance
HCID	high consequence infectious disease
HN	Host Nation
HNS	Host Nation Support
HSS	Health Service Support

I

INT	Intelligence
IO	International Organisation

J

JFC	Joint Forces Command
JMED	Joint Medical
JSP	joint Service publication
JTF	Joint Task Force

L

LN	Lead Nation
LoAC	Law of Armed Conflict
LOC	Line of Communication

M

MED	Medical
MEDAD	Medical Advisor
MEDASSESSREP	Medical Assessment Report
MEDDIR	Medical Director
MEDEVAC	Medical Evacuation
MEDEVAL	Medical Evaluation
MEDINT	Medical Intelligence
MEDSITREP	Medical Situation Report
MERT	Medical Emergency Response Team
MHC	Military Health Care
MI2	Medical Intelligence and Information
MILMED COE	Centre of Excellence for Military Medicine
MMU	Multinational Medical Unit
MOD	Ministry of Defence
MRS	medical reception station
MTF	medical treatment facility

N

NGO	Non-Governmental Organisation
NHS	National Health Service
NMLT	National Medical Liaison Team
NSE	National Support Element

O

OPCP	Operational Patient Care Pathway
OED	Oxford English Dictionary
OEH	Occupational and Environmental Health
OPLAN	Operations Plan

P

PAR	Population at Risk
PCRFB	primary casualty receiving facility
PECC	Patient Evacuation Coordination Cell
PHTT	pre-hospital treatment team
PJHQ	Permanent Joint Headquarters
POI	Point of Injury/Insult

R

RAF	Royal Air Force
RAMP	reception arrangements for military patients
RAP	regimental aid post
RCDM	Royal Centre for Defence Medicine
RFA	Royal Fleet Auxiliary
RoM	Restriction of Movement
RRU	regional rehabilitation unit
RSN	Role Specialisation Nation

S

SACEUR	Supreme Allied Commander Europe
SAR	Search and Rescue
SC	Strategic Command
SERE	Survival, Evasion, Resistance and Extraction
SHAPE	Supreme Headquarters Allied Powers Europe
SOR	Statement of Requirements

T

TCN	troop-contributing nation
-----	---------------------------

U

UHBFT	University Hospitals Birmingham Foundation Trust
UK	United Kingdom
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNSCR	United Nations Security Council resolution

W

WHO	World Health Organization
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Annex F

Lexicon Part II – Terms and definitions⁹¹

A

Aeromedical Control Cell/Centre: The control facility established by the commander of an air transport division, air force, or air command. It operates in conjunction with the command movement control centre and coordinates overall medical requirements with airlift capability. It also assigns medical missions to the appropriate aeromedical evacuation elements in the system and monitors patient movement activities.

Aeromedical Evacuation: The movement of patients under medical supervision by air transport to and between medical treatment facilities as an integral part of the treatment continuum.

Allied Joint Medical Publication: An Allied medical publication containing doctrine applicable to NATO and NATO-led operations involving more than one service.

Allied Joint Publication: An Allied publication containing doctrine applicable to NATO and NATO-led operations involving more than one service.

Area of Operations: An area within a joint operations area defined by the joint force commander for conducting tactical level operations.

Area of Responsibility: For a given level of command, an area assigned to a commander to plan and conduct operations.

Aviation Medicine: The special field of medicine which is related to the biological and psychological problems of flight.(Source: Oxford English Dictionary – OED)

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91 Please note: The current status of terms and definitions can be found on the NATO standardization office webpage. As the status of terms and definitions may change requiring an update of this document, no annotation on the status is provided here.

B

Battle Casualty: A casualty incurred as the direct result of hostile action, sustained in combat or relating thereto or sustained going to or returning from a combat mission.

C

Casualty Collection Point: The first location where casualties are collected after rescue out of a non-permissive environment and picked up by forward MEDEVAC assets. It is usually established in semi or more permissive environment and manned with one or more designated emergency care providers. Note: Any obvious threat to the health of the patient or to the operational emergency care system has to be removed from the patient at the CCP. This is not a medical responsibility and may be performed by non-medical personnel trained for this role.

Casualty Staging Unit: A medical unit caring for in-transit patients under medical personnel supervision.

Combat Search and Rescue: The detection, location, identification and rescue of downed aircrew in hostile territory in time of crisis or war and, when appropriate, isolated military personnel in distress, who are trained and equipped to receive combat search and rescue support.

Computed Tomography: A form of tomography in which a computer controls the motion of the X-ray source and detectors, processes the data, and produces the image (Source: OED)

D

Damage Control Resuscitation: A systematic approach to dealing with major trauma combining the catastrophic bleeding, airway, breathing and circulation paradigm with a series of clinical techniques from immediate life-saving measures up to surgical interventions in order to minimise blood loss, maximise tissue oxygenation and optimise outcome.

Damage Control Surgery: A surgical intervention where the completeness of the immediate surgical repair is sacrificed to achieve haemorrhage and contamination control, in order to avoid a deterioration of the patient's condition.

Deployment Operating Base: A base, other than the peacetime base, having minimum essential operational and support facilities, to which a unit or part of a unit will deploy to operate from in time of tension or war.

Disaster Relief: Services made available to individuals and communities that have experienced losses due to disasters (Source OED)

Doctrine: Fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application.

F

Force Health Protection: All medical efforts to promote or conserve physical and mental well-being, reduce or eliminate the incidence and impact of disease, injury and death and enhance operational readiness and combat effectiveness of the forces.

Force Protection: All measures and means to minimize the vulnerability of personnel, facilities, equipment and operations to any threat and in all situations, to preserve freedom of action and the operational effectiveness of the force.

G

Good Distribution Practice: GDP ensures that the quality of a pharmaceutical product is maintained by means of adequate control of the numerous activities which occur during the distribution process and secures the distribution system from counterfeits, unapproved, illegally imported, stolen, counterfeit, substandard, adulterated, and/or misbranded pharmaceutical products. (WHO Definition – Source UN Lexicon)

H

Health and Medical Support: A set of actions which contribute to the preparation and preservation of the human potential by full and coherent care.

Health Service Support: All services provided directly or indirectly to contribute to the health and well-being of patients or a population

Host Nation: A nation which, by agreement:

- a. receives forces and materiel of NATO or other nations operating on/from or transiting through its territory;
- b. allows materiel and/or NATO organizations to be located on its territory; and/or
- c. provides support for these purposes.

Host Nation Support: Civil and military assistance rendered in peace, crisis or war by a host nation to NATO and/or other forces and NATO organizations that are located on, operating on/from, or in transit through the host nation's territory.

Health and Medical Support: A set of actions which contribute to the preparation and preservation of the human potential by full and coherent care.

Humanitarian Assistance: As part of an operation, the use of available military resources to assist or complement the efforts of responsible civil actors in the operational area or specialized civil humanitarian organizations in fulfilling their primary responsibility to alleviate human suffering.

I

Intelligence: The product resulting from the directed collection and processing of information regarding the environment and the capabilities and intentions of actors, in order to identify threats and offer opportunities for exploitation by decision-makers

International Organisation: An intergovernmental, regional or global organization governed by international law and established by a group of states, with international juridical personality given by international agreement, however characterized, creating enforceable rights and obligations for the purpose of fulfilling a given function and pursuing common aims. (Source: OED)

J

Joint Operations Centre: Element of a joint force commanders headquarters established for planning, monitoring, and guiding the execution of the commander's decisions.

L

Law of Armed Conflict: The body of international law that regulates behaviour during armed conflict (jus in bello to limit its negative effects, applies not only to governments and their armed forces, but also to armed opposition groups (Source: OED)

Lines of Communication: All the land, water, and air routes that connect an operating military force with one or more bases of operations, and along which supplies and reinforcements move

M

Medical Advisor: The senior medical staff officer in a formation headquarters responsible for ensuring that the commander and his staff are properly aware of the health and medical implications of their actions and any related issues connected to an operation.

Medical Assessment Report: A report in a standardized format used to provide NATO commands with an overall assessment of the medical and health services situation for in-place and reinforcing forces together with any remedial action taken or planned.

Medical Director: the functional head of the medical services in a formation or theatre of operations.

Medical Emergency Response Team: A medical team trained and equipped to provide advanced resuscitation and pre-hospital emergency medical care, platform independent in any operational environment other than direct combat.

Medical Evacuation: The medically supervised process of moving any person who is wounded, injured or ill to and/or between medical treatment facilities as an integral part of the treatment continuum.

Medical Services: 1. Activities related to all professional, technical, and related functions performed by physicians and/or other health care provided under the direction of a physician or another medical professional. 2: Those organizational branches of the military that provide those professional, technical, and related functions performed by military medical personnel.3. In a military organization, all professional, technical, and related functions performed by medical professionals. (Source OED)

Medical Intelligence: Intelligence derived from medical, bio-scientific, epidemiological, environmental and other information related to human or animal health (requires medical expertise throughout its direction and processing within the intelligence cycle).

Medical Situation Report: A report in a standardized format used to inform higher echelons of the medical and health services about the medical and health services situation of friendly forces.

Medical Support: A function encompassing the full range of medical planning and provision of medical and health services to maintain the force strength through disease prevention, evacuation, rapid treatment of the diseased, injured and wounded, their recovery and return to duty.

Military Health Care: Measures and activities to sustain or restore the health and the fighting strength of all military personnel from enlistment to retirement through the full spectrum of military duties in garrison and on deployment.

Multinational Medical Unit: A unit formed when two or more nations agree to provide medical support.

N

National Support Element: Any national organization or activity that primarily supports national forces that are part of a NATO force (under the operational control of its national authorities and not formally part of a NATO force).

Non-Governmental Organisation: A private, not for profit, voluntary organization with no governmental or intergovernmental affiliation, established for the purpose of fulfilling a range of activities, in particular development related projects or the promotion of a specific cause, and organized at local, national, regional or international level. (Source: OED)

O

Operational Command: The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational and/or tactical control as the commander deems necessary.

Operational Control: The authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned, and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control.

Operation Plan: A plan for a single or series of connected operations to be carried out simultaneously or in succession. Notes:

1 – It is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders.

2 – The designation 'plan' is usually used instead of 'order' in preparing for operations well in advance.

3 – An operation plan may be put in effect at a prescribed time, or on signal, and then becomes the operation order.

P

Population at Risk: A group of individuals exposed to conditions which may cause injury or illness.

Point of Injury: The place where injuries occurred or acute symptoms were reported first.

Primary Health Care: The provision of integrated, accessible health care services by clinical personnel trained for comprehensive first contact and the continuing care of individuals experiencing signs and symptoms of ill health or having health concerns (includes health promotion, disease prevention, patient education and counselling, and the diagnosis and treatment of acute and chronic illness).

R

Restriction of Movement: A measure for controlling the spread of a contagious disease by restricting contact between healthy groups of personnel and those who either have, or are suspected of having, contracted a contagious disease.

Role of Medical Support: A category that identifies the functions and the capabilities of a medical unit or element. Medical care is categorised into four roles (Role 1, Role 2, Role 3, and Role 4).

Role Specialisation Nation: A nation that assumes the responsibility for procuring or providing a particular class of supply or services for all or a part of a multinational force.

S

Search and Rescue: The use of aircraft, surface craft, submarines, specialized rescue teams and equipment to search for and rescue personnel in distress on land or at sea.

Secondary Health Care: The provision of specialised clinical care requiring training and equipment levels beyond that which could normally be provided at the level of primary health care. (Source OED)

Standing Operating Procedure: A set of instructions covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness. The procedure is applicable unless ordered (Source: OED)

Strategic Command: The command organization at the highest level of the NATO military command structure (there are two strategic commands, namely, Allied Command Operations and Allied Command Transformation).

Survive Evade Resist Escape: A set of tactics, techniques, and procedures that is intended to give isolated personnel the skills to survive in any environment and to evade capture, or failing that, to resist exploitation by captors and, if the situation permits, escape captivity to finally support their own or assisted recovery and return with dignity.

T

Transfer of Authority: Within NATO, an action by which operational command or operational control of designated forces and/or resources, if applicable, is passed between national and NATO commands or between commanders in the NATO chain of command.

U

United Nations Office for the Coordination of Humanitarian Affairs: Part of the United Nations Secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies. OCHA also ensures there is a framework within which each actor can contribute to the overall response effort. (Source UN Lexicon)

W

World Health Organization: A specialized agency of the United Nations to direct international health within the United Nations' system and to lead partners in global health responses. (Source UN Lexicon)

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