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AJP-4.10

**ALLIED JOINT
MEDICAL SUPPORT
DOCTRINE**



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NORTH ATLANTIC TREATY ORGANIZATION
NATO STANDARDIZATION AGENCY (NSA)
NATO LETTER OF PROMULGATION

February 2002

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Director

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FOREWORD

My tenure at SHAPE, as the ACE Medical Advisor, has been an exciting time. Fundamental changes have occurred in NATO in the last few years: a new strategic concept, a new command structure, the enlargement of the Alliance by Poland, Hungary and Czech Republic. At the same time NATO has conducted the Balkans operations. Expectations on quality and quantity of medical support of forces deployed have increased, at a time when resources and personnel had decreased dramatically. In such operations of prolonged duration the sustainability of a medical support system, capable of providing a standard of care as close as possible to that prevailing in peacetime, has become an issue. Concurrently, the need to optimise the overall medical resources available in the theatre of operations has become a priority.

This publication expands and explains the fundamental principles of support enshrined in the MC 319/1 "NATO Principles and Policies for Logistics" and 326/1 "NATO Medical Support Principles and Policies" and translates them into a consistent doctrine of multinational medical support to NATO Forces. All existing NATO medical and logistics publications have been considered and critically reviewed with the aim of providing NATO and national medical staffs with a consistent doctrinal source and a unique reference book. New concepts have been developed in conjunction with the nations, whose standpoint has always been sought and whose contributions have been very much appreciated. The lessons learned from operations have been carefully introduced in this publication, as well as the very extensive experience that the medical staffs at Strategic, Regional and Tactical Levels have gained in years of planning for multiple options and changing circumstances. Acknowledgement must be given to the vast amount of coordination that has occurred between medical and all other SHAPE staffs, to ensure overall consistency and consensus.

It is with not inconsiderable pride that I present the final product of almost two years of dedicated work. I strongly recommend that all medical staffs involved in operations read this publication. Many uncertainties lay in the future as well as many opportunities. The strengthening of medical interoperability and the most effective management of scarce and precious medical assets will be the measure of NATO nations' willingness to respond positively to these opportunities and to keep ensuring that our troops receive, on operations, nothing less than the best medical care.

Rear Admiral F. SIMONETTI
Italian Navy
ACE Medical Advisor

31 August 1999
Supreme Headquarters of Allied Powers in Europe

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CHAPTER 1 – THE ALLIANCE CONCEPT OF MEDICAL SUPPORT

SECTION 1 - INTRODUCTION

General

0001. The transformation of the world security environment has had a profound impact on the North Atlantic Alliance, which in 1992 and 1999 changed its strategic concept. The danger to the security of NATO members is less likely to come from aggression to their collective territory, but mainly from risks to their collective interests in areas beyond their territory. The new risks may include the proliferation of weapons of mass destruction, disruption of the flow of oil, terrorism, genocidal violence and wars of aggression in other regions that threaten to create great instability.

0002. To deal with the above-mentioned risks, Alliance members need to have a way to rapidly form military coalitions that can accomplish goals beyond NATO territory. The Combined Joint Task Force (CJTF) concept provides the means to generate multinational forces rapidly deployable beyond the traditional Area of Responsibility (AOR) of the Alliance, for the whole spectrum of non-Article 5 Crisis Response Operations. Such coalitions will include some, but not necessarily all, NATO members, and may include non-NATO members.

0003. Therefore, whilst Article 5 operations remain NATO's primary mission, significant changes have occurred in the way the Alliance can expect to operate in the future. NATO will also need to be able to integrate non-NATO forces, and to undertake non-Article 5 operations with all the commensurate additional logistic support requirements that result from the potential lack of established infrastructure. Medical staffs must also adapt to these new situations, and develop concepts to support multinational joint operations.

0004. The experiences gained from Bosnia, during NATO's first land force deployment, have provided considerable impetus to the further development of the Alliance's operational doctrine. This had started in 1993 with the preparation of Allied Joint Operational Doctrine (AJP-01), as a capstone document, and has been followed by Allied Joint Logistics Doctrine (AJP-4). These documents respond to newly agreed NATO policies and principles, the reality of nations' changing force structures, and NATO's expanding operational interests.

0005. While the massive Article 5 war, with huge numbers of casualties occurring over a large area, is still a significant concern for NATO, this scenario is appearing less and less likely. Smaller, more localised, operations such as peacekeeping and peace support, are probably going to be the most common operations for NATO in the short and medium term. From the medical viewpoint, crucial aspects of the most likely types of future operations are:

- a. Joint operations (operations in which elements of more than one service participates (i.e. land, air and maritime forces)).

- b. Combined (or multinational) staffs and force structures (i.e. more than one nation).
- c. High degree of flexibility and mobility.
- d. Variable and generally lower average casualty rates than have traditionally been planned for an article 5 scenario.
- e. Emphasis on medical support as close as possible to national peacetime standards.
- f. Emphasis on force protection at all levels, to assess medical support readiness, share lessons learned and good ideas, and identify issues for command awareness.
- g. Emphasis on environmental hazards leading to the need for preventive medicine based on accurate health information.
- h. High level of media coverage leading to more public focus on the need for adequate medical support and more influence on morale of troops and public support.
- i. Requirement to support humanitarian emergency situations together with International Organisations, Governmental and Non-Governmental Organisations (NGOs).

Aim

0006. The aim of this publication is to provide medical support doctrine for NATO multinational joint operations and essential material for medical planning staffs. As the NATO hierarchy of medical documents is still in a formative stage, and there is at present a lack of subordinate documents within the medical support area, this publication contains more details than would normally be expected. However, this detail will be subsumed by subordinate documents as they are written, leaving a succinct publication more suited to be a true doctrinal publication.

Scope

0007. This document forms a doctrinal bridge between medical support principles and policies included within MC 326/1 and planning guidelines developed at the strategic, regional and sub-regional levels. It is consistent with AJP-4, which refers to a supporting doctrine publication, in which medical doctrine is further developed and explained to provide operational planners with a greater overview of the finer points and complexities of medical support planning and execution.

0008. NATO medical support doctrine allows considerable flexibility. It does not reflect nor exclude any particular nation's approach to medical support. The doctrinal framework is focused on "how to think" rather than "what to think" and does not preclude close cooperation between the nations, even if some differences in national doctrines exist. Hence different options for cooperation in medical support are offered, to be tailored on a case by case basis.

0009. This publication provides a detailed overview of the interactions between medical and other staffs. The statement that "in NATO, Medical is part of Logistics" is true but incomplete. It poorly reflects the span of collaboration and interactions across the entire spectrum of the command staff elements that is required from the medical staffs in operations. In fact medical staffs operate in a highly specialised and multifaceted environment, which involves linkages and interface with all key NATO commander staffs, of which logistics is only one part.

0010. Novel terminology not yet defined in the NATO Glossary of Terms and Definitions (AAP-6) or the NATO Glossary of Medical Terms and Definitions (AMedP-13) is defined in the Glossary to this publication.

0011. The custodian for this document is the Bi-Strategic Command (SC) Medical Advisory Group (Bi-SC MEDAG) to which all comments, proposed amendments and updates should be forwarded.

Allied Joint Doctrine

0012. Allied operations are defined as “operations carried out by forces of two or more NATO nations”. Combined operations are defined as “operations carried out by two or more nations consisting of NATO and non-NATO countries”. Joint operations are defined as “operations in which elements of more than one service participate”. These should be prepared, planned and conducted in a manner which makes the best use of the relative strengths and capabilities of the participating countries and the forces they offer for the operation.

0013. A common doctrine supported by standardisation of equipment and procedures, validated through participation in Allied, joint and combined training exercises, provides the basis of force interoperability. At the operational level, emphasis must be placed on the integration of the Contributing Nations’ (CN) forces and the synergy that can be attained. This will have a decisive effect on a multinational force’s ability to achieve the commander’s objectives.

Levels of Allied Joint Operations

0014. Operations by Allied Joint Forces (AJF) are directed, planned and conducted at three levels:

a. The Military Strategic Level. At this level, armed forces are employed with other instruments of power to secure the strategic objectives of the Alliance. A SC may be directed to draft an outline plan which, subject to North Atlantic Council (NAC) approval, would be passed to the operational commander for development as an operational plan. Thereafter, the SC would monitor the operation to ensure that the operational commander continues to have, inter alia, the correct mission, Rules of Engagement (ROE), forces, etc.

b. The Operational Level. At the operational level, armed forces are employed to attain strategic and/or campaign objectives within a designated AOR. Normally this will require sustained operations with simultaneous and/or sequential actions by the committed forces. It is at the operational level that tactical successes achieved in engagements and major operations are combined to achieve strategic objectives. To that end an operational level commander will refine a campaign within a designated AOR, create an operational plan and direct operations.

c. The Tactical Level. At the tactical level, forces are employed to conduct military tasks and to accomplish military objectives of less magnitude than those defined at strategic level. Successful accomplishment of these objectives is designed to achieve operational results

0015. The key to delineation of these levels is that normally strategic authority allocates objectives and resources, setting necessary limitations; while, at the operational level, the commander orders the activities of his assigned formations in pursuit of his own campaign plan. At tactical level, commanders employ units for combat in order to achieve the military objectives of the campaign.

SECTION 2 - MEDICAL SUPPORT ORGANISATION

Medical Mission in NATO Operations

0016. The mission of medical support in military operations is to support the mission, through conservation of manpower, preservation of life and minimisation of residual physical and mental disabilities. Appropriate medical support makes a major contribution to both force protection and morale by the prevention of disease, rapid evacuation and treatment of the sick, wounded and injured and the return to duty of as many individuals as possible.

0017. In order to accomplish the mission a spectrum of services is required, ranging from preventive medicine through first aid, resuscitation and stabilisation of vital functions, to evacuation and definitive specialised care.

0018. Medical capabilities must be commensurate with the force strength and the assessed risks to the deployed forces. The medical services must expand progressively as force strength expands and risks increase, and there must be a surge capability to deal with peak casualty rates in excess of expected daily rates.

Standards of Medical Care

0019. The difficulties of treatment under the adverse conditions in some operational scenarios, the austerity, simplicity and mobility of the equipment and the necessity of haste in caring for the immediate surge of casualties does not mean that military surgery or military care in general are carried out in an atmosphere of confusion and disorder or that standard principles of treatment are abandoned. On the contrary, as military history shows, intelligent planning, application of the state of the art in treatment of wounded, together with appropriate training and equipment in anticipation of military needs have resulted in enviable and ever-improving health outcomes.

0020. Medical support to NATO forces must meet standards acceptable to all participating nations. Even in crisis or conflict, the aim is to provide a standard of medical care as close as possible to prevailing peacetime national medical standards, given the difficulties of doing so in an operational setting.

0021. Advances in medical and information technologies should be exploited to keep the operational standard of care as close as possible to peacetime standards and to deliver emergency care and emergency surgery as close as possible to the point of wounding.

Mass Casualty (MASCAL) Situation

0022. In a MASCAL situation the principle of treatment changes from one based on the individual needs of each patient to one based on the greatest good for the greatest number. This means that time consuming treatment and evacuation is withheld from those who would place a high demand on medical resources and this allows the same resources to be concentrated on a larger number of other casualties instead.

0023. In such a situation, the following triage priorities are to be used:

a. Immediate Treatment (Group T1). To consist of those requiring emergency care and life-saving surgery. These procedures should not be time-consuming and should concern only those patients with high chances of survival. Examples: respiratory obstruction, accessible haemorrhage, emergency amputation, etc.

b. Delayed Treatment (Group T2). To consist of those in need of surgery, but whose general condition permits delay in surgical treatment without unduly endangering life. To mitigate the effects of delay in surgery, sustaining treatment (for example: stabilising i.v. fluids, splinting, administration of antibiotics, catheterisation, gastric decompression and relief of pain), will be required. Examples: after large muscle wounds, fractures of major bones, intra-abdominal and/or thoracic, head or spinal injuries, uncomplicated major burns.

c. Minimal Treatment (Group T3). To consist of those with relatively minor injuries who can effectively care for themselves or who can be helped by untrained personnel. Examples: minor lacerations, abrasions, fractures of small bones and minor burns.

d. Expectant Treatment (Group T4). This group comprises of patients who have received serious and often multiple injuries, and whose treatment would be time-consuming and complicated, with a low chance of survival. If fully treated they make heavy demands on medical manpower and supplies. Until the MASCAL situation is under control, they will receive appropriate supportive treatment. The extent of treatment will depend on available supplies and manpower and may involve the use of large doses of narcotic analgesics. These patients should not be abandoned, but every effort should be devoted to their comfort, and the possibility of survival with even alarming injuries always kept in mind. Examples: severe multiple injuries, severe head or spinal injuries, large doses of radiation, widespread severe burns.

Time-Related Constraints of Medical Care

0024. Time is a critical factor in patient survival and recovery. Hence, time is the major driver dictating the type and location of medical assets in operations and conflicts, and timeliness in providing emergency care and emergency surgery to the wounded is crucial. In general, the interval between injury and definitive treatment is critical to the probability of patients' recovery.

0025. In order to reduce the mortality rate of casualties, resuscitation and stabilisation should be initiated on the field, primarily within the first hour of trauma management, sometimes called "the golden hour." A proportion of casualties resuscitated will deteriorate or remain unstable. These casualties will require emergency surgery as soon as possible. Where emergency surgery can be provided forward the number of casualties saved can be increased, and the degree of disability can be minimised.

0026. Most battle wounds will be contaminated, leaving the casualty prone to life threatening infection. The treatment for this is the surgical removal of dead tissue (debridment), not to be confused with the above-mentioned life-saving surgery. The time limit for debridment is six hours from time of wounding.

0027. In conclusion, among the medical principles, responsiveness, which is providing timely and effective medical care, is a cornerstone. All these considerations about time constraints of medical care in operations are summarised in the guidance that "emergency surgery must be provided as soon as possible, ideally within the first hour, but not later than six hours from wounding".

Continuity of Care

0028. Patients passing through the medical system must be given care, which is continuous, relevant and progressive. Casualties must be managed continually until they reach definitive care. In transit care must be available during evacuation and the clinical condition of the individual is the key factor governing the timing, means and destination of the patient's evacuation.

0029. Medical care is provided in a progressive manner through the four roles/echelons that identify the capability of medical facilities, from point of injury or sickness through evacuation to specialised care and eventually to definitive treatment and rehabilitation.

Casualty Management

0030. The medical support system in military operations depends on well organised pre-hospital treatment and medical evacuation. It utilises different and successively staged techniques and protocols to treat the casualties.

0031. Emergency care (resuscitation and stabilization) and emergency surgery when necessary render the casualty transportable to a suitable hospital for definitive treatment. The initial surgery at a forward facility might not be the definitive surgery, rather it may be the initial effort required to save life and limb and preserve function, to the greatest extent possible.

0032. This means that a patient may be cared for by a series of surgeons in different medical facilities with different and generally increasing medical capabilities. This concept of casualty management allows forward medical facilities to be more mobile and concentrate more resource-intensive casualty care in secure areas where medical facilities are not required to move with the changing tactical situations. In a combined operation medical treatment might well be delivered by personnel of different nationalities at various Medical Treatment Facilities (MTFs) along the evacuation chain. This calls for a need of a high degree of standardisation of casualty treatment regimes.

0033. Casualty management requires the creation and the maintenance of a comprehensive patient management system with a common information base, which includes treatment information to be recorded using a standardised NATO format. This system will facilitate patient tracking, patient regulating and medical documentation and record keeping within and between theater medical facilities. This common information base should be accessible to entitled personnel by means of the Communications and Information System (CIS) assets available for the operation.

Medical Capabilities

0034. Within NATO, the medical resources and assets are usually distributed into four tiers on a progressive basis to conduct treatment, evacuation, re-supply and other functions essential to the maintenance of the health of the force. Land/air medical facilities are categorised into four Roles, according to their capabilities, whilst maritime medical facilities are categorised into four Echelons. Roles and Echelons are closely related, but are not directly interchangeable terms. The differences between them will be discussed later in this document, in paragraphs 0041 to 0062. "Capability" describes what the medical facility can do. Capability increases from Role/Echelon 1 to Role/Echelon 4.

0035. The capabilities of medical facilities fall into two categories :

- a. Minimum capability, which is mandatory, or
- b. Augmentation, with additional enhancements, tailoring capability to specific missions.

0036. The minimum capabilities of each Role/Echelon are intrinsic to each higher Role/Echelon, that is a Role 3 facility has the ability to carry out Role 1 and Role 2 functions. A medical facility cannot be reduced below the minimum capabilities of its given numeric descriptor. Therefore a medical asset cannot be described as Role/Echelon "minus" (e.g. there is no Role 2-).

0037. However, minimum capability may be enhanced to meet the specific requirements of a mission by the addition of selected capabilities. The presence of augmented capabilities is indicated by the sign "+" (e.g. Role 2+). The specific augmentations may be described separately. Augmented medical assets are very likely to be employed in Peace Support Operations (PSO), to meet the peacetime medical standards of care.

0038. As a general rule, as medical support capabilities are increased, they do so at the price of increased requirements for complex equipment, personnel and supplies, which in turn requires increased lift and other support. Highly sophisticated medical facilities in the combat zone could encumber the commander and restrict his freedom of movement. However, if the nature of the operation allows it, sophisticated medical facilities can be positioned near to the point of wounding.

0039. Under battle conditions the flow of casualties generally follows the pattern from Role 1 to Role 3 facilities. Then repatriation to Role 4 hospitals takes place as appropriate. But this is an organisational pattern and not a matter of rigid prescription. One or more Roles or Echelons may be bypassed on grounds of efficiency and patients' needs.

0040. The number and types of treatment assets and their location will be determined by the casualty estimates and the time required for transportation from point of wounding or sickness to the required treatment resource, keeping in mind the time related constraint of medical care. The availability and type of transport assets to be utilised, the length and difficulty of the evacuation route, the operational environment and its limitations and the theatre evacuation policy will have an impact on the size and capability of medical facilities.

Land/Air Medical Treatment Facilities

Role 1

0041. The Role 1 medical treatment facility provides first aid, triage, resuscitation and stabilisation. It is an essential element of every national contingent and it must be readily and easily available to all force personnel.

0042. Normally included within the basic Role 1 capabilities are: routine sick call and the management of minor sick and injured personnel for immediate return to duty, as well as casualty collection from the point of wounding and preparation of casualties for evacuation to the rear.

0043. Whenever a national contingent is unable to meet these criteria an increase in capability or medical support from another contingent's medical resources should be negotiated.

Augmented Role 1 (Role 1+)

0044. In accordance with the mission, Role 1 medical capabilities can be augmented by one or more of the following:

- a. Very limited patient holding capacity.
- b. Primary dental care.
- c. Basic laboratory testing.
- d. Preventive medicine.
- e. Operational stress management.

Role 2

0045. A Role 2 medical facility is an intermediate structure capable of receiving casualties, providing triage and stabilisation for further evacuation, treatment and holding of patients until they can be returned to duty or evacuated.

0046. In addition to Role 1, Role 2 minimum capability includes :

- a. Re-supply to Role 1.
- b. Evacuation from Role 1.

- c. Limited holding capacity.
- d. Personnel reinforcement to Role 1.
- e. Patient record maintenance.
- f. Tracking of evacuated patients.
- g. Operational stress management.

0047. The deployment of Role 2 units is mission-dependent, especially when:

- a. There are large numbers of personnel or when there is a risk of high numbers of casualties.
- b. Geographic, topographic, climatic or operational factors may limit evacuation capability.
- c. The overall medical capability of the force at Role 1 might require additional support or reinforcement (such as during realignment of troops, or during retrograde operations and training exercises in theatre).

Augmented Role 2 (Role 2+)

0048. Augmented Role 2 (Role 2+) medical facilities consist of Role 2 minimum capability augmented by any or all the following:

- a. Emergency surgery.
- b. Intensive care.
- c. Essential post operative care.
- d. Blood replacement.
- e. Laboratory capability.
- f. Basic imaging capability (e.g., radiology, ultrasound).

0049. It must be understood that the addition of ancillary services reduces the mobility of the medical facility, by increasing the requirements for medical personnel and equipment. A balance between medical capabilities and tactical mobility should be met in the light of operational circumstances.

Role 3

0050. Role 3 medical facilities include the capability of Role 2 extended by surgery, intensive and post-operative care, medical, dental and nursing care, and relevant diagnostics. Role 3 units can provide lower level units medical personnel replacement. Resupply of Role 2 facilities and either control of or ready access to patient evacuation assets are included within the minimum capability.

0051. In addition to beds required for the seriously ill, the holding capacity will be sufficient to allow diagnosis, treatment and holding of those patients who can receive adequate treatment and be returned to duty within the evacuation policy. It is important to note that the mobility of Role 3 facilities depends significantly on the operational scenario. Many need only to be deployable into theatre and will not

subsequently require redeployment. However, in a highly mobile conflict some will also require to be redeployable in order to be able to continue supporting the manouvering formations.

Augmented Role 3 (Role 3+)

0052. Augmented Role 3 (Role 3+) medical facilities include one or more of the following :

- a. Specialist surgery (neuro-surgery, maxillo-facial, burns, etc.).
- b. Advanced and specialist diagnostic capabilities (CT scan, arthroscopy, sophisticated lab tests, etc.).
- c. Major medical, dental and nursing specialities.
- d. Preventive medicine.
- e. Environmental health capability.

Role 4

0053. A Role 4 medical facility provides definitive care of patients for whom the treatment required is longer than that dictated by the theatre evacuation policy or for whom the capability usually found at Role 3 is inadequate.

0054. This would normally include definitive care specialist surgical and medical procedures, reconstruction and rehabilitation.

0055. This care is usually highly specialised, time consuming and normally provided in the casualty's country of origin. Under very unusual circumstances, a Role 4 medical facility may be established in the Theatre of Operations (TOO).

Maritime Medical Treatment Facilities

Echelon 1

0056. Echelon 1 medical facilities provide the basic integral medical support of individual units. Capabilities are limited to resuscitation, stabilisation and those described for Role 1.

0057. Such support extends from small war vessels where no medical staff is carried and where care is limited to self and buddy care, through ships with medical personnel but no physician, to ships with a number of medical officers and staff. In a maritime force trained medical personnel will staff the medical departments on small ships and provide emergency care independent of a medical officer, whilst on ships with a medical officer assigned, the capability for a more advanced level of emergency care exists.

Echelon 2

0058. Echelon 2 medical facilities provide emergency surgery. There is limited post-operative holding capacity and therefore evacuation is essential to sustain the recovery of patients. They are essentially equivalent to the land forces Role 2+ capability.

0059. This capability is available either afloat in some major combat or logistic vessels, or ashore at the Forward Logistic Site (FLS).

Echelon 3

0060. Echelon 3 medical facilities provide specialist surgical teams and more advanced medical support in which the major medical, dental and nursing specialities are represented.

0061. These capabilities can be provided afloat, by Primary Casualty Receiving Ships (PCRS), which can be either hospital or major amphibious ships¹ and ashore at the FLS and Advanced Logistic Support Sites (ALSS).

Echelon 4

0062. Echelon 4 medical facilities provide full and definitive medical treatment. They will be shore based, either in Host Nation (HN) hospitals or in the home country.

Component Medical Support

Land/Air Operations

0063. The support to land/air forces was traditionally designed within the context of the various zones of the battlefields. In particular, there were two distinct support areas: the Rear Support Area (RSA), where most operational level support functions are performed and the Forward Support Area (FSA), where tactical support functions take place. The traditional organisation for combat casualty care and evacuation was likewise based on two distinct zones, the combat zone and the communication zone (COMMZ), and the various levels of medical care were arranged in static, incremental fashion.

0064. On the modern, non-linear battlefield or during PSOs, these zones may not be well established or defined. Therefore, the location of MTFs will be mission-dependent. In many circumstances, for example, the Role 3 MTF could be placed centrally, with the sending units arranged around it in a “hub and spoke” paradigm.

Maritime Operations

0065. In maritime operations, support to a deployed maritime force has two facets: shore support and afloat support. Shore support encompasses all the activities in direct support of a maritime force. Afloat support is the responsibility of the commander at sea who controls all assigned assets, including medical.

0066. The fundamental precept of the maritime support is to provide shore-centralised distribution and support sites so that units, while afloat, can be self-sufficient. While the concept is flexible and specific capabilities and organisation will be mission dependant, generally it calls for ALSSs in support of the entire force, and smaller, more mobile FLSs located closer to the supported force. The distribution of medical resources, assets and capabilities between the maritime force and the shore medical facilities will be scenario dependent and subject to contingency planning.

0067. Although the minimum medical capabilities for maritime medical facilities have been previously described, these capabilities will have a considerable degree of variation in the maritime environment. As with land operations, these variations will depend on the composition of the force, the remoteness of the deployment, as well as the specific requirements of the mission.

¹ These do not normally include aircraft carriers.

0068. The concentration of manpower within the relatively small volume of a ship's hull means that casualties are likely to occur in groups, and this has resource implications. Transfer of casualties between a damaged unit and supporting medical/surgical facilities either afloat or ashore requires helicopter assets since they are the fastest, most efficient and safest means of evacuation. Further, in a ship, the organic medical personnel stand more chance of becoming casualties themselves and the timely transfer of additional medical personnel to the damaged unit can be done better by air. Even though surface transportation may be used, afloat surgical facilities are less effective without helicopter assets for the movement of casualties between the damaged ship and the facility. Therefore, maritime force medical and evacuation assets overall, available either afloat or ashore, should be sufficient to meet the requirement to treat the estimated number of casualties.

0069. Resupply is also different in the maritime environment. Medical supplies are usually stored for the duration of the mission and if resupply is required this is often from tanker/resupply vessels or from ports of call. An independent maritime force deploying beyond the evacuation range of the ALSS and FLS must be provided with a higher ratio of medical support relative to its size, since it cannot rely on medical assistance from adjoining or supporting forces and will have to hold more patients.

0070. The inherent difference between maritime and land force operational medical support may generate different solutions, but integration of the total land and maritime medical support should be considered to achieve economies of scale.

SECTION 3 – MEDICAL INTELLIGENCE

General

0071. Medical intelligence is a form of finished intelligence that is the end product of “all source” information and intelligence analysis, processing, and production by professional intelligence staffs. Medical Intelligence is defined as “that category of intelligence resulting from collection, evaluation, analysis, and interpretation of medical, bio-scientific, epidemiological and environmental information. It also includes the assessment of foreign medical capabilities in both military and civilian sectors.”

0072. Medical intelligence serves several essential purposes at the strategic and operational levels of planning. Firstly, it is important to the intelligence and operational staffs for formation of strategic assessments. Secondly, it is important to the medical planning, preventive medicine, and operational staffs. Medical intelligence is used for:

- a. The assessment of health risks.
- b. The formation of medical estimates.
- c. The development and execution of preventive medicine actions and necessary prophylactic measures.
- d. The planning of more detailed health risk assessments.
- e. The ongoing management of medical support services.
- f. Force Protection and Defence.

0073. In a somewhat broader context, medical intelligence is useful in the following areas of military planning:

- a. Strategic intelligence assessments.
- b. Analysis of enemy capabilities and vulnerabilities.
- c. Operational planning and execution.
- d. Civil-military medical planning and operations.

0074. Medical intelligence provides the basis for action throughout the range of military medical operations. Throughout the operation, deployed forces will be required to notify the unit surgeons of any intelligence, which may affect medical readiness. This information will then be reported up to the theatre level for appropriate command advice on risks and recommended response.

Intelligence Requirements and Requests for Information

0075. The intelligence required for medical planning and operations must be comprehensive, rapidly available, accurate and up to date. Amongst others, it must provide information on:

- a. Geographic factors such as effects of climate, topography, flora and fauna, etc. on health.
- b. Epidemic and endemic diseases, their types and prevalence, local prophylactic measures, resistant strains, treatment, etc.
- c. Special environmental and occupational hazards such as radiation hazards, road movement hazards, pollution, toxic industrial hazards, etc.
- d. NBC warfare capability of protagonists.
- e. Medical resources available in the TOO.

0076. Medical staffs are responsible for developing intelligence requirements in order to enable the intelligence staff to efficiently request, acquire, and disseminate the finished intelligence products needed. Intelligence requirements are often categorised as either “Standing Requirements” or “Priority Intelligence Requirements” (PIRs).

0077. Standing requirements are the recurring routine requirements for intelligence to be fulfilled in normal day to day strategic and operational planning. PIRs tend to be orientated to operational planning either for contingency or for crisis action planning. In the latter case, staffs develop and submit the most critical PIRs, usually just a few that are essential to plan development and the formation of estimates. In either case, both standing requirements and PIRs are usually written in the form of questions about a specific topical area and can be used interchangeably.

0078. Examples of generic intelligence PIRs of relevance to the medical planning staffs is provided below selected under sub-categories.

- a. Diseases

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- What are the endemic diseases of operational importance in the TOO that could adversely affect the health of NATO personnel?
- What are the operationally important diseases with incubation periods of less than 15 days?
- What are the operationally important diseases with incubation periods of greater than 15 days?
- What is the geographic distribution of operationally important diseases in the TOO associated with elevation, terrain, and vegetation?
- Are the operationally important diseases limited to select geographic foci?
- What are the historical trends and variations (incidence, prevalence, etc.) of operationally important diseases in the TOO through a full 12 month cycle?
- What is the disease situation in the civil population?
- What communicable diseases in the TOO are projected as being significantly drug-resistant? Identify the drug resistance.
- What significant disease outbreaks have occurred in refugee populations?
- What disease outbreaks can be projected in refugee populations if no preventive or corrective measures are taken?
- What is the risk of introducing new disease problems into refugee populations, which are potentially malnourished and more susceptible to communicable disease?
- How might disease problems in the civil population impact on medical support requirements associated with civil-military cooperation?
- What is the status of AIDS and HIV in the civil population? What is the strategic economic and military impact? What is the estimated HIV sero-positivity rate?
- What is the status of tuberculosis in the civil population? Are there drug resistant strains?

b. Environmental Factors

- What are the environmental characteristics in the TOO that could have a negative effect on the health of NATO personnel (e.g. status of water supply quality/potability, waste disposal practices, environmental contamination status, etc.)?
- What is the status of public infrastructure such as piped water supply, surface water supply, water treatment plants and systems, sewage treatment systems and piping, etc.?
- What are the major sources of industrial and agricultural pollutants? Where are they?

NATO UNCLASSIFIED

- What kinds of indigenous hazardous (venomous/poisonous) animals and plants occur in the area of operations? What is their geographic distribution? What are the types of habitat, terrain, and elevation where they might be encountered?
- What types of anti-venom supplies are available indigenously to counter venomous bites?

c. Medical Infrastructure and Capabilities

- How many fixed site medical treatment facilities are in the TOO (number, bed capacities, etc.)?
- What is the relative quality of service relative to modern standards of medical care (equipment/facilities, staff availability and training/competency)?
- What are the locations of these installations?
- Do any of the major hospitals have a helipad? What overall evacuation capabilities (air and ground) exist?
- What are the capabilities of those facilities? What services and clinical specialties?
- Where are the major blood banks? What is the capacity? What diseases are screened?
- Where are the major pharmaceutical plants? What is the quality of products? By what agency are they certified/approved.

d. Medical Capabilities of Enemy Forces

- What types of military medical units exist in the opposition? What are their number and locations in the TOO?
- What types and extent of medical support services exists for the opposing forces?
- What is the relative health status and medical readiness of the opposing force?
- Does the opposing force have a military medical support structure that is at the same level of unit readiness as the combat forces it supports?

e. Enemy Military Capabilities

- What are the major weapon systems and associated health risks characteristics upon combat and other deployments?
- Does the adversary have NBC weapons? If so, what are the types of delivery systems, agents, yield, and doctrine for employment?

0079. There will be times, especially during evolving crises, where intelligence is either insufficient or absent. In these situations, the medical planning staff will need to forward “Requests for Information” (RFIs) to the supporting intelligence staff. RFIs will usually be submitted in a format similar to a PIR, but should be very well defined, narrow in scope, and specific to a command mission or objective.

Medical Intelligence Dissemination

0080. Dissemination is the timely conveyance of intelligence, in an appropriate form and by suitable means, to those who need it. Intelligence products can take the form of oral briefings, reports, summaries listed in formation and unit Standard Operating Procedures (SOPs), and the updating of NATO and national databases.

0081. These products, including medical intelligence, will be disseminated to NATO commands through intelligence gateways and the supporting intelligence staff. The intelligence staff will then provide the products to the requester. It is important to note here, that NATO staffs do not request intelligence on NATO nations. Information about NATO nations is not an intelligence issue or function. The doctrinal basis for intelligence in NATO is outlined in detail in STANAG 2936 and AINTP-1.

SECTION 4 – MEDICAL FORCE PROTECTION

General

0082. Force protection may be defined as the protection of personnel, facilities, and equipment in all locations and situations. Three primary focus areas for force protection programmes established by NATO commanders, and incumbent upon all CNs for proactive collaboration, include the following:

- a. Physical and Operational Security: guarding personnel and material against hostile intent.
- b. Safety: protecting individuals against injuries from inappropriate procedures and inattention.
- c. Health: protecting individuals against the physical environment and disease.

0083. In a medical context, force protection is the conservation of the fighting potential of a force so that it is healthy, fully combat capable, and can be applied at the decisive time and place. It consists of actions taken to counter the debilitating effects of environment, disease, and selected special weapon systems through preventive measures for personnel, systems, and operational formations.

0084. Medical force protection programmes will cover the following key tasks:

- a. Assessment of the adequacy and readiness status of the medical support structure to provide required medical services.
- b. Education and training campaigns to protect and promote the health of the troops.
- c. Promotion of what works well across the entire force.
- a. Identification and working toward resolution of critical issues and shortfalls.

Medical Force Protection Assessment

0085. Medical force protection assessment focuses on the readiness of the medical support structure to prevent and respond to personnel injuries and illnesses (i.e. organisational and planning readiness). Major categories of criteria for conducting this assessment include NATO STANAGs and Operational Plans (OPLANs)

0086. Medical support capabilities, which may serve as qualitative items for assessment, include:

- a. Air, maritime and ground evacuation capabilities.

- b. Emergency surgery and treatment capabilities.
- c. Epidemiological surveillance and medical reporting functions.
- d. Medical information collection and intelligence functions.
- e. Preventive and veterinary services functions.
- f. Preventive and health education for deployed troops.
- g. Overall medical planning functions.
- h. Medical support to non-NATO personnel and humanitarian assistance.

0087. Conduct of deployed force exercises requires also assessment functions to be performed to key aspects of medical support. Assessment criteria utilised for this function may focus on a range of both organisational, resource, and performance characteristics of the medical support structure, for the exercise and training forces, and for home based units supporting insertion of exercise forces.

Life-cycle Medical Surveillance for Operational Deployment

0088. Military personnel deploying to various regions around the world may encounter significant infectious disease, operationally based and environmental health risks. Disease and Non-Battle Injuries (DNBIs) are potentially a greater threat than Battle Casualties (BC) are to the effectiveness of operational units and the success of the overall mission.

0089. Life-cycle medical surveillance, prior to, during, and post deployment, must be an important national and NATO command priority for both effectively achieving the mission, and concerning the health and welfare of all deployed personnel. Personnel must deploy fit and healthy, maintain this readiness state during the operation, and then be harmonised back into their post deployment family and military life.

0090. This life-cycle focus has become a prominent national responsibility due to the complexities of modern operating environments with multiple exposure risks and mental stress factors, which have been increasingly recognised as interrelated risk factors. Hence, proactive surveillance by multidisciplinary health professionals across the full life cycle of deployment operations is required.

0091. Integration of information across all successive phases is critical to examine cause-and-effect relationships and to make adjustments in medical preparation and support, based on the health status of forces monitored across the full deployment life-cycle.

0092. There is a need, both at national and NATO level, to bridge the full life-cycle of specific operations and maintain macro or integrated focus on health issues germane to the entire force for important feedback. This serves both follow-on forces planning for longer-term operations and tailoring and enhancing life-cycle medical surveillance for future operations.

0093. This life-cycle assessment demands participation by national and NATO health professionals who interface with medical staff involved with each component phase of individual deployments. Information exchange between nations and NATO authorities is essential. This exchange must comply with CNs and NATO fundamental governing principles, standards and laws, including national approval, medical-patient confidentiality, legal requirements and limitations.

Pre-Deployment Medical Readiness Preparation and Baseline Assessment

0094. National and NATO command emphasis must be placed on personnel readiness before deployment so that medical (including dental and mental health) fitness and preparedness for duty upon arrival in a TOO are maximally achieved. This requires that each CN establish medical pre-deployment criteria and a system for administration, which includes, at a minimum, screening personnel for the following:

- a. Physical and Dental Fitness. Compliance with CN and, when defined, with NATO fitness requirements (contained in relevant medical STANAGs), for personnel prior to deployment.
- b. Mental Fitness. Compliance with CN and, when defined, with NATO medical requirements.
- c. Immunisation Coverage. Compliance with both STANAG 2037 “Vaccination of NATO Forces” requirements and in response to medical intelligence summaries for specific operations (e.g. as contained in the relevant OPLAN). Appropriate immunisations must be given to all deployed personnel, as guided by medical intelligence estimates of the infectious health risk.
- d. Preventive Medicine Training. Training should at a minimum include emphasis on preventive medicine measures for key infectious disease and environmental health risks, and on core preventive medicine principles, including following good personal hygiene and sanitation.
- e. Baseline Medical Surveillance Documentation. Increasing national and international emphasis is being placed on establishing strong baseline medical surveillance for deployed military forces due to illnesses and disabilities liability for multinational troops upon return from field deployments.

0095. Each nation has clear primary responsibility and liability incentive at the pre-deployment phase of operations for establishing and effectively executing a comprehensive baseline medical surveillance programme, to include both physiological and psychological health status.

0096. Although establishing objectives and executing a baseline medical surveillance are fundamental national responsibilities, the NATO commander has a collective responsibility for assuring that nations participating in NATO operations deploy healthy, fit-to-fight and sustainable forces as part of the team. NATO standardisation objectives involve harmonisation and integration of fitness requirements from member and participating nations.

Deployment Phase Medical Readiness Support Functions

0097. During the deployment phase of NATO operations, several key monitoring and surveillance functions provide important measures of medical support readiness. These measures are defined below:

- a. Assessment of the overall health readiness status of the troops through medical situational reports.
- b. Establishment of an epidemiological surveillance data-collection and reporting system.
- c. Verification of a system for the management of stress and prevention of Post Traumatic Stress Disorders (PTSD).
- d. Certification of the readiness and preparedness of non-NATO deployed medical capabilities.

- e. Assessment of the medical force protection function which will:
 - (1) Provide commanders with an assessment of the readiness and adequacy of the medical support structure at all levels.
 - (2) Identify positive lessons learned to assist and thereby promote exploiting operational success across the entire TOO.
 - (3) Advise commanders on medical support issues requiring national or collective action.
- f. Provision of selected force protection preventive medical initial and reinforcement training.

Post-Deployment Phase Medical Status Monitoring Functions

0098. A third major phase of medical status monitoring applies to the post-deployment, or troop return phase of an operation. This is an important primary function of national deployment responsibility, but also bears important implications for shaping follow-on phases of the same NATO operation, and for future operations. Information pertaining to changes in the health readiness status of re-deploying forces is important in both the short and longer-terms at national and NATO levels of management.

0099. In the short term for both participating nations and NATO commanders important insight may be gained on the adequacy of medical intelligence and health support services thereby providing input for changes in current or follow-on multinational operations. At the national level critical fitness for duty determinations for returning troops is also gained.

0100. Longer-term national relevance regarding liability determination for follow-up medical support requirements (disability liability and continuing medical support liability) may be ascertained. Longer-term benefit may also be achieved for the continuation and enhancement of NATO operations where economy and efficiency will continue to be important principles governing the multinational medical support.

Preventive Medicine and Medical Force Protection

0101. DNBI will be an ever present risk to personnel. Medical support plans must include provision for preventive medical measures and the means to implement them effectively. OPLAN execution requires a close collaboration of preventive medicine and medical force protection programmes.

0102. Preventive medicine measures must be capable of:

- a. Identifying the risks and threats to the health of all personnel deployed in a specific TOO, from terrain, climate, endemic disease, special environmental and occupational hazards.
- b. Identifying necessary preventive and controlling measures and advising commanders on their implementation, to include the development of a theatre policy on immunization and prophylaxis measures and on the appropriate training of all personnel, especially on measures to prevent food/waterborne and arthropod-borne diseases.
- c. Advising on and auditing the quality of water and food.
- d. Auditing and supervising implemented measures.

- e. Gathering of epidemiological and other technical statistics and information.
- f. Advising commanders on the overall health risks and threats and the limitations they may place on the campaign.

0103. Preventive medicine measures are an essential element of the planning process. Their implementation begins during the pre-deployment stage and continues throughout the deployment, irrespective of overall changes in the conduct of the operation and must extend well into the post-deployment period. They involve every individual in the operational theatre, who must be aware of necessary personal protective measures and be trained accordingly.

0104. The organisation to undertake preventive medicine measures must therefore be in place from the outset and must extend from theatre HQ down to units and below. Its shape and size will be mission-dependant but will include, at least, individual preventive medicine advice at every level of operational command. Depending on the circumstances, this advice may come from a single staff officer with multiple medical responsibilities or from a full preventive medicine staff.

Preventive Medicine Requirements

0105. Medical Intelligence/Information. The single most essential requirement of preventive medicine is a source of prompt, usable medical information and/or intelligence, available at the planning stage before the outset of an operation. This information must be accurate and its source sufficiently dynamic to inform the user quickly of threat changes.

0106. Immunisations, Education & Training Materiel. Other preventive medical resources will include provision for immunisations against specified diseases and chemoprophylaxis, advice on training and information for the prevention of DNBI, prophylactic medical materiel and a spectrum of mission dependent field support measures.

0107. Laboratory Capabilities. Surveillance and assessment of environmental health risks require laboratory capabilities. Field laboratory capabilities are part of the environmental health team support functions focused on identification, surveillance and monitoring of health risks in field operating environments. These capabilities should include technology for sampling and analysis for NBC contaminants in air, soil, water, and food supplies. Ruggedised equipment and transport capabilities are needed both in the form of a field mobile laboratory to support immediate sampling and initial screening of hazards; and a fixed laboratory capability to support both confirmatory evaluations and more extensive assessment of collected field samples pertaining to naturally occurring and manmade health risks.

Morbidity Surveillance and Casualty Reporting

0108. Both morbidity surveillance and casualty reporting systems are important functions performed by medical staff elements to support the NATO commander in the ongoing objectives of protecting the force and conserving the fighting strength and manpower of the force.

0109. The disease surveillance function serves as a key indication of troop health status, and as a key warning system or sentinel to trigger further investigation, preventive countermeasures, or other command action to reduce the adverse impacts of health threats. It also provides an estimate of the impact (manpower and working day losses) of disease occurrence.

0110. A NATO-sponsored morbidity surveillance system called EPI-NATO was introduced during the IFOR/SFOR Operation as a keystone tool to be managed by the medical staffs of deployed forces at all levels. It involves the monitoring, collection, and evaluation of illness/injury data on all deployed personnel

who report for medical treatment support, both on an outpatient and inpatient basis. It is also set to run in conjunction with other national reporting systems. EPI-NATO will be utilised in all NATO operations and exercises.

0111. In EPI-NATO, epidemiological data on all treatment visits, including both first and subsequent attendances in the TOO, are collated and analysed at theatre level. Relevant findings are reported as feedback to the reporting units. Medical staff and commanders thus have reliable, quantitative data planning and resource allocation regarding medical support and useful trend analyses by illness and injury category.

0112. Through the quantitative identification of causes of morbidity and qualitative measuring of their effect, an evaluation of both occurrences and consequences is the prime objective of this survey. Findings may then support appropriate response actions, both in the short and long term.

Civil Labour

0113. During operations civil labour is often utilised in large numbers and this can pose a number of health hazards:

- a. They may be reservoirs of infectious disease.
- b. When they are billeted in large encampments, the encampments can become unhygienic and pose an increasing risk of infectious disease.
- c. Infection of own troops from infected food handlers, from contamination of water sources and from sexually transmitted diseases are historical problems associated with civil labour.

0114. The HN should be responsible for the health of civil labour and any camps they occupy. However, where the HN's medical infrastructure is inadequate, the CNs employing civil labour need to make sufficient arrangements in order to protect the health of their own troops.

0115. At a minimum these arrangements must include a strategy to eradicate infectious diseases which are a threat to one's own forces, and a first aid service during work. Depending on the supporting civilian infrastructure, consideration will also have to be given to providing a primary health care service, if only to ensure the continued provision of the required labour.

MASCAL and Incident Response Planning

0116. A MASCAL situation is one in which an excessive disparity exists between the casualty load and the medical capabilities locally available for its conventional management. In PSOs a MASCAL situation will most likely be the result of accidents (road accident, plane crash, bomb, fire, etc.), hostile actions (guerrilla warfare, terrorist attack) or natural phenomena (flood, earthquake, etc.). Incidents will most likely be smaller in scale compared to an Article 5 MASCAL situation.

0117. A series of suitable plans must be developed for different scenarios at tactical level and integrated into a theatre-wide MASCAL Plan. Force protection measures require a rapid and efficient response to MASCAL situations and incidents. Their effective management shows the theatre ability to respond as a whole to a medical crisis by cross-borders mobilisation of resources and minimisation of obstacles to interoperability.

0118. MASCAL exercises at theatre and local level will help in developing and testing the overall MASCAL Plan. Training objectives may include amongst others:

- a. Evaluate the ability to conduct theatre level medical regulating and aeromedical evacuation (AE).
- b. Identify interoperability issues affecting multinational support.
- c. Practice cross levelling of medical supply and blood products.
- d. Determine the adequacy of emergency care resources.
- e. Test communications connectivity.

SECTION 5 – CASUALTY ESTIMATES

General

0119. Casualty estimates are the core of medical plans. In any scenario the analysis of likely casualty rates and numbers has a great political and operational significance and is fundamental in establishing the medical support requirements.

0120. The casualty estimate is a prediction of total losses of personnel in an operation due to various causes. It is expressed in numbers per day. Casualties are broken down into BC and Non-Battle Casualties. BC include Killed, Captured and Missing-in-Action (KCMIA), Wounded-in-Action (WIA) and Battle Stress (BS) cases. Non-Battle Casualties include Disease and Non-Battle Injuries (DNBI). Categories of personnel casualties are shown at Fig.4-1.

| PERSONNEL CASUALTIES | | | | |
|----------------------|-----|----|-----------------------|-----|
| BATTLE CASUALTIES | | | NON BATTLE CASUALTIES | |
| KCMIA | WIA | BS | DISEASE | NBI |

Fig.4-1 – Categories of personnel casualties

0121. Casualty rate is the operational estimate of the number of BC, which will result from the operation. Casualty rates are expressed as a daily rate (number of casualties/100/day). Historical casualty rates give the planners the frame of reference for those rates that can apply to the specific operation. Once the rates have been chosen, they can be applied to the force to be deployed to produce an estimation of casualties (both BC and DNBI).

0122. The process of casualty estimation for a specific operational plan draws on a broad base of knowledge on three linked operational parameters:

- a. Forces, defined by size (the Population at Risk (PAR)), configuration for operation (structural and functional organisation), order of battle and scheme of manoeuvre, mission sectors (main attack(s), secondary attack(s), fixing sector(s)). In short, the force commander's overall concept of operations and his intended overall scheme of manoeuvre must be known.
- b. Time during which a rate is applied.

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- c. Operational dynamics visualised as attacker-defender interactions (continuous front, disrupted front and disintegrated front).

0123. The empirical evidence from modern conflicts is clear that the most critical feature in rate expectation is the "manner" of an operation and its "overall result". On average the more successful an attacker is, the more likely his BC rates will be lower. That is, an attacker able to achieve high operational tempo slashing through defences should expect lower, not higher, rates. Forecast of what the operational result will be (who wins) and how operational success will be achieved is the key to accurate casualty rate estimates.

0124. The medical planner will support the development of the operational plan by constructing a profile of plausible rates for a given operation, which describes the rate behaviour - pulses and pauses - and their variability over the full force and time. Since plausible and reasonable patterns of rates are associated with the major patterns of operations, the judgements of possible operational results are crucial. The medical planner should realise that casualty estimation, which reflects the ultimate view of what will likely happen along the time line and across the force, is not primarily his responsibility. The responsibility for providing casualty estimates lies with the J3 staff. Projection of operational results should reflect the commander and staff's appreciation of the projected scenario.

0125. With regard to the estimation of BC in PSOs, there is little historical data but, it can be assumed that casualty estimates would be significantly lower and different, in kind and character, than in conventional warfare. In some operations, though no combat would be involved, casualties could result from the military operational environment (e.g. from residual mines, snipers, etc.) and these casualties would be counted as BC.

0126. A detailed analysis of expected sources of DNBI based on historical and current data would enable medical and operational staffs, working in concert, to produce a provisional DNBI rate for the operation. This is a technical estimation of the probable rate of diseases and injures not resulting from combat, which can be expected in the force, once deployment begins. DNBI rate is mission dependent and dynamic, related to the level and nature of activity, the acclimatisation, training and living conditions of the deployed personnel. DNBI rates for generic planning are provided in AD 85-8. The experience gained in recent NATO deployments shows that the AD 85-8 set of occurrence rates remains valid. The implementation of a morbidity surveillance system in NATO deployments will allow NATO to establish a library of health surveillance information that would assist medical support planning for future operations. A comprehensive DNBI analysis could produce more effective preventive medicine measures, including recommended policy on immunisation, prophylaxis and troop education. It could also be a driving factor in the size and capability of medical resources required in different scenarios.

0127. NBC Casualty Estimates. Guidance for the estimation of casualties from nuclear attack can be found in STANAG 2475 NBC/MED. Studies into casualty estimates with regard to biological and chemical attack are being carried out and are published as STUDY 2476 NBC/MED (Biological) and STUDY 2477 NBC/MED (Chemical). When completed and agreed by nations, these studies will form, covered by STANAG 2475, AMedP-8 (A), which will then comprise three volumes.

SECTION 6 – MEDICAL LOGISTICS

General

0128. Medical logistics defines the process of procurement, storage, movement, distribution, maintenance and disposition of medical materiel, including blood and blood products, in order to provide effective medical support and the application of this process in planning and implementation.

0129. The unique characteristics of medical materiel set it apart from other commodities, resulting in a separate military medical supply and logistics management structure that many nations have in place. Prominent distinguishing characteristics of medical stores are as follows :

- a. They are afforded protected status under the terms of the Geneva Conventions if stored and distributed separately.
- b. They play a key role in patient care management and must be able to respond rapidly to clinical demands because of the complex inter-dependence between treatment capability and the availability of medical materiel.
- c. They require tight controls and specialised management due to the technical nature of medical materiel, their often limited shelf life, their sensitivity to storage and transport conditions.
- d. They are governed by extensive national and international regulations.

0130. The scale and scope of a medical logistics system will be mission dependant. It must enable national contingents to be self-sufficient from deployment throughout the duration of the mission, in keeping with the sustainment statement specified by planning staffs. It must also be straightforward and reliable, capable of delivering medical supplies rapidly, theatre-wide. An audit system must be established, which is cost-effective, simple, and does not constrain demand or supply.

Blood and Blood Products

0131. The supply of safe blood and blood products is considered as a separate function from general medical logistics. Their provision at all levels at which surgery is offered is mandatory. The requirement will be for an in-theatre system with the minimum capability of:

- a. Receiving blood and blood components of a standard acceptable to all participating national contingents as established in STANAG 2939.
- b. Moving, storing and distributing blood and blood components and disposal of clinical items used in blood administration.
- c. Maintaining continuity of records from donor to recipient.
- d. Collecting, processing and testing blood on an emergency basis.

0132. Whilst 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 TOO for blood and blood products provision, provided that internationally agreed standards are met.

SECTION 7 – MEDICAL COMMUNICATIONS AND INFORMATION SYSTEM (CIS)

General

0133. Reliable and effective communications and information systems are critical to operational success and the effective employment and control of CIS resources are command responsibilities. CIS embodies the principal domains of computer automation systems, auditory communications systems and visual communications systems. Despite the apparent abundance of such modern communications technology as satellites, computers and fiber-optic transmission, communication capacity is a limited resource.

Medical CIS Requirements

0134. Medical support connectivity is an operational requirement. There is a need to allocate the most effective CIS means to capture the appropriate medical data from theatre MTFs. This facilitates regulation and tracking of casualties within a TOO and gives the ability to respond quickly to medical contingencies. There is also a need for medical professionals to communicate with each other so that medical cases can be discussed and clinical advice is provided. A well-structured medical CIS is the essential foundation of an efficient medical support structure. Medical staff must have the full range of office space, transport, communication equipment and information technology to carry out their mission responsibilities. CIS medical requirements for operations will include a span of dedicated and non-dedicated assets encompassing medical verbal and visual communication, automation technology, data and information management. The medical CIS and in particular the Medical Information Management System (MIMS) must have the capability to inter-face with the corresponding logistics data management systems such as the Logistics Functional Area Sub-System (LOGFASS).

0135. Medical verbal communications include all forms of auditory linkages of staffs within the medical support structure, and between medical support elements and other NATO and national organisational elements and staff. This is a critical component of the communications infrastructure and must have sufficient connections and capacity to support all essential medical CIS needs. This infrastructure will be used as the backbone to support in theatre tactical military connectivity down to the lowest force level. Critical connectivity among evacuation and treatment assets in theatre, and with the out-of-theatre evacuation and treatment assets must be supported. Direct signal communications support, in the form of terrestrial and satellite networks, commercial and military systems is required to provide a reliable and timely verbal communications architecture comprising radio, fax and telephone based capabilities.

0136. Visual communications includes those both real-time and store-and-forward technologies for transmitting visual imagery from one geographic location to another. Uses may range from tele-mentoring and tele-conferencing functions, among medical personnel, to the provision of distance-based medical diagnostic support.

0137. Automation technology embodies computer automation hardware and software capabilities, fundamental to medical support across the progressive spectrum of evacuation, treatment, record-keeping, surveillance, and the full range of staff functions, including information and data exchange through electronic mail linkages. This domain is critical for medical linkage into the architecture of the Crisis Response Operations in NATO Open Systems (CRONOS) and medical interactions at theatre and subordinate command levels.

0138. Medical data/information management involves the collection, recording, processing and storing of medical information/data of operational significance. Establishment of baseline architecture for the collection, storage, transmission, and retrieval of information are functions that must be performed at national and multinational level.

0139. Medical CIS should be capable of the passage of timely and accurate medical information to all entitled personnel and include:

- a. Patient tracking and regulating.
- b. Reporting on the status of readiness and sustainability of medical capabilities in the area of operations.
- c. Notification of deaths, serious illness and injury.
- d. Provision of statistics, for epidemiological and administrative purposes.

- e. Production of clinical evidence for official national or international inquiries.
- f. Provision of early assistance in the detection of biological/chemical attacks.

0140. The requirement for medical CIS is unlikely to be significantly different between Article 5 and non-Article 5 operations, although it is probable that the levels of data traffic on the communication pathways will be greater with respect to the former. The CIS architecture will be very similar in each case, as will the requirement to provide real time-visibility of the operational medical situation.

SECTION 8 – OTHER MEDICAL SUBJECT MATTERS

Medical Records

0141. Medical documentation is represented by the recording and processing of medical information on a patient to include personal details, clinical history, as well as medical care and evacuation requirements and support provided.

0142. Careful and standardised medical documentation in an operation is essential for:

- a. Medical treatment.
- b. Quality control.
- c. Evaluation process.
- d. Budget and legal aspects.
- e. Statistics and medical surveillance system functions.
- f. Programming medical supplies and other logistics support.
- g. Breaching language barriers and achieving effective translation documentation on patient treatment records.
- h. Medical intelligence documentation, reporting, and follow-up.

0143. Patient documentation procedures should be clear and comprehensive. Medical documentation should be interoperable throughout the area of operations. Standardised NATO documents/forms should be utilised in all cases for which such templates exist, such as prescribed through medical STANAGs. Copies of patient documents and digitised medical records, when available, should move with the patient throughout the evacuation system to definitive care, and then be retained in the individual service member's medical records.

0144. When care is provided to patients in MTFs other than their respective national MTFs, medical personnel should ensure that documentation of medical treatment is noted on official medical records and medical confidentiality is respected. Medical records will accompany the patients during evacuation and suitable medical documentation will also be released to the respective National Medical Liaison Teams (NMLTs).

0145. The following STANAGs deal with this subject, STANAG 2132 Field Medical Card, STANAG 2347 Medical Warning Tag, STANAG 2348 Basic Military Hospital (Clinical) Records and STANAG 2050 Statistical Classification of Diseases, Injuries and Causes of Death.

Prisoners of War (POW)

0146. The doctrine applicable to POWs is based in medical ethics and international law, including the Geneva Conventions. International law requires that appropriate medical treatment be given to enemy POWs, that captured medical personnel are afforded a special status as “retained personnel”, and captured medical materiel is not to be destroyed if it is serviceable and safe. It is appropriate to make use of enemy medical facilities for wounded POWs in order to minimise additional workload on friendly medical facilities.

0147. POWs are to be treated, evacuated and “returned to duty” (i.e. transferred to normal POW facilities) using the same clinical criteria that are applied to the capturing nation’s own injured. Nations may wish to cooperate to provide centralised POW treatment facilities, although legally the capturing nation remains responsible for POWs wherever they are held or treated.

0148. POWs must be treated in accordance with set principles in regard to medical or health matters. These require the following actions :

- a. To treat the prisoners humanely and never to endanger their health.
- b. To take all necessary measures to ensure the cleanliness and healthfulness of camps and prevent epidemics.
- c. To give the prisoners an adequate diet and suitable medical care.
- d. To supply free of charge to the prisoners the appliances necessary for their maintenance in good health, such as spectacles, dentures and other prostheses.
- e. To transfer to specialised establishments those prisoners whose state of health requires special treatment or surgery.
- f. Not to prevent prisoners from presenting themselves to the medical authorities for examination.
- g. To carry out medical inspections of prisoners at least once a month.
- h. To make regular checks on the fitness for work of those prisoners who are compelled to work and to exempt those who are unfit.
- i. To make an official enquiry if a prisoner dies or is injured in particular circumstances (especially if he is killed or wounded by a sentry, another POW or any other person).

0149. Enemy medical facilities captured intact should be immediately reported through the chain of command. Their incorporation into the capturing nations medical organisation for the treatment of POWs should be considered. Similar consideration should be given to captured enemy medical personnel. These can contribute to the management of POWs, particularly where there would otherwise be language or cultural difficulties. They are also useful where the captured enemy medical personnel have a particular expertise of endemic disease not normally seen in the CNs, and in the management of psychological disorders in POWs.

0150. Medical services need to be involved in the planning and running of POW cages, particularly when POWs may pose a risk to those guarding them from bad hygiene practices or endemic disease. The medical authorities will need to develop for the POWs a preventive medicine strategy, provide a primary health care service, ideally utilising enemy medical personnel, and ensuring that the guarding force has adequate medical support.

CHAPTER 2 – MULTINATIONAL MEDICAL SUPPORT CONCEPT

SECTION 1 - INTRODUCTION

Aspects of Multinationality

0151. Multinationality poses a number of key challenges whose resolution is crucial to military effectiveness and hence success in combined operations. These include the formation of an effective command system, an intelligence system which can draw and share data from a number of multinational and national sources, and a logistic system which acknowledges the need for national support but also caters for multinational needs.

0152. Multinational command arrangements may lead to slower response times than purely national command, and the speed and quality of decision making may become adversely affected. Such detrimental effects can be ameliorated through the adoption of common doctrine and procedures plus realistic training and exercises. Multinational command requires an attitude of mind that is international in perspective.

Multinational Cooperation

0153. Nations participating in multinational operations do so for reasons that are viewed as nationally advantageous in political and military terms. Therefore contributions must be judged not only on the capability of the forces provided but also by the full range of political and military benefits they bring to the multinational alliance or coalition operation.

0154. The political advantages of multinational cooperation include sharing political risks, demonstrating economic, diplomatic, military or political support to other regions, achieving international legitimacy through contributing to regional stability, and influencing national and international opinion.

0155. Cooperation adds military advantages in both depth (strength in numbers) and breadth (additional capabilities) to a force as well as providing access to national or regional infrastructures and in certain circumstances, access to high value information and intelligence products.

Obstacles to Optimal Multinational Cooperation

0156. Differences in force capabilities and operating procedures impose limitations on a multinational force's ability to operate effectively. Among the risks that may need to be addressed are deficiencies in interoperability, such as differences in operating procedures, technical incompatibilities and lack of standardisation. In fact:

- a. Procedural and tactical differences present the force with situations where different units from different services or nations may not be able to work effectively together.
- b. Language barriers present communications difficulties that may result in differences in interpretation of the mission or assigned tasks; and may be intensified by limitations in the range of communications technologies available.
- c. Lack of systems standardisation and interoperability can cause technical difficulties.

- d. Inability to exchange information, intelligence, technical data, or communications can result from incompatibilities and national security concerns.
- e. Medical cooperation can be degraded because of concerns about other Nations' capability and the lack of common medical standards of care.

Multinational Medical Support

0157. Multinational medical support is the overarching term for methods of medical support other than purely national to military operations. The multinational medical and logistic concepts are aimed to meet the demands of the joint commander's operational concept, assist in exploiting operational success, and achieve efficiencies and economies of scale resulting from the effective coordination and in some cases integration of assets.

0158. In the area of multinational medical support there is potential for overlap and confusion in the delineation of responsibilities between NATO commands and nations operating under NATO command. Guidelines must be established to outline the responsibilities of each element involved and the way they relate to planning and conducting multinational operations.

0159. The following are general responsibilities by organisation. It must be remembered that responsibilities may be tailored to the specific circumstances of each operation, as agreed by the CNs and commands involved.

SECTION 2 – AUTHORITY AND RESPONSIBILITY

NATO Commanders' Medical Responsibility

0160. Medical support in NATO is not a purely national responsibility. After Transfer of Authority (TOA) NATO commanders share, together with CNs, the responsibility for medical support of multinational forces. NATO commanders' medical responsibilities are related to their level of command, the force composition and the type of mission (e.g. time/event (conflict, peacetime planning, PSOs, exercises, etc.)).

0161. In consultation with the nations the NATO commander will:

- a. Establish the medical support requirements.
- b. Coordinate medical planning and support within his AOR.

0162. The medical support requirement will consist, as appropriate, of procedural, quantitative and qualitative determinations and will specify those resources necessary to collect, evacuate, treat and hospitalise casualties occurring at agreed daily rates. It will also include the resources to provide preventive medicine services and medical force protection support, including readiness assessment of medical capabilities.

0163. Medical planning will include the implementation of the different methods for medical support such as purely national or multinational as outlined below. Nations retain control over their own resources, until such time as they are released to the NATO commander. But the specific rules concerning authorities, responsibilities and funding, in the case of multinational medical support arrangements, are to be established at an early stage during the planning process and well before TOA.

0164. NATO commanders have the responsibility to ensure that the medical support system for the troops they are assigned is in keeping with the medical principles, policies and directives established and agreed by the Alliance.

0165. The prerequisite for the delegation of medical responsibilities to a NATO commander is the presence in his staff of appropriate medical representation, sufficient in rank, number, training and experience.

NATO Commanders' Medical Authority²

0166. Authority must be aligned with responsibility. Thus, if a NATO commander has been assigned responsibility for a specific operation, he must also be given the authority to establish and assess the medical requirements so as to ensure he has and maintains the ability to accomplish his mission. On operations the NATO commander has a vested interest in those aspects of health, which affect operational effectiveness.

0167. In NATO operations, units and formations should deploy and re-deploy with a coherent medical structure tailored to their anticipated employment. Under normal circumstances, nations must have first call on their own medical support. However, the force commander must be authorised to take appropriate action in order to cope with casualty peaks within his force.

Coordinating Authority

0168. The NATO commander is granted coordinating authority over medical assets to best support his plans. In coordinating medical functions and activities involving two or more countries, commands and services, he can require consultations but does not have the authority to compel agreement. In the event he is unable to obtain essential agreement he shall refer the matter to the appropriate authority. Coordinating authority is exercised both during the force generation process and during the execution of a given operation.

0169. In exercising his medical coordinating authority the NATO commander may, amongst others:

- a. Evaluate medical intelligence/information about possible deployment areas and incorporate this data into contingency plans.
- b. State requirements for and make assessment of the individual first aid, health and hygiene training of the troops allocated to his force and the collective training of medical units and their fitness to operate and survive.
- c. Require reports on existing bilateral and multilateral MedHNS medical support agreements, establish HN medical support requirements, initiate, participate, coordinate and conduct negotiations for HN medical support.
- d. Establish epidemiological surveillance on the health of the troops deployed.
- e. Direct appropriate education and recommend immunisation policy and programmes for disease prevention and control of the troops deployed.
- f. Direct environmental monitoring/occupational hygiene measures.
- g. Establish and run a specific command and control system in order to ensure continuity of medical care during patient evacuation.

² France rejects this authority to inspect its logistic assets

- h. Make arrangements to ensure safe shelter, food, water and sanitation within the deployment area.
- i. Determine the evacuation policy.
- j. Recommend the administration of NBC prophylactics.

Evaluation and Assessment Authority

0170. The NATO commander has the authority to evaluate and certificate medical units of non-NATO CNs prior to their deployment.

0171. During the mission, collective responsibility allows the NATO commander's oversight of all medical issues within his purview. Therefore, once in the theatre and for the duration of operation, all medical units will report in a timely manner their capabilities one level up in the chain of command. This requires a reporting mechanism that is both complete and easily interpreted.

0172. These reports may be developed as a collaborative tool among theatre and lower command level medical staffs. They support a range of objectives including:

- a. Assess the readiness status of the medical support structure to support troop health needs.
- b. Identify key lessons learned and promote a sharing of good ideas across all levels of operation.
- c. Identify key deficiency areas and issues for command awareness and follow-up action.

0173. Additionally, as a means to ensure force protection and gain necessary visibility of critical assets, the NATO commander is authorised to inspect CNs' medical assets in the area of operations. In such a way he is able to assess their level of readiness, sustainability and ability to fulfil their tasks.

0174. This evaluation and inspection should be based on a checklist focused on both core medical capabilities applicable to all NATO operations; and on capabilities tailored to specific operations, deployments, and exercises involving combined joint forces.

0175. The checklist may also serve as an important component of the ongoing Force Protection Assessment Programme conducted for the commander, involving physical security, safety, and medical components, and managed as a collaborative effort among the medical, J3 and other staff elements of the commander.

Redistribution Authority

0176. Under specific conditions (e.g. in an MASCAL situation) the NATO commander is authorised to use redistribution authority, to prevent local overload or to overcome unexpected deficiencies. Such authority will be exercised only temporarily and in extraordinary situations.

0177. Collective actions that may be directed include:

- a. Relocate or specifically site certain specified medical capabilities as and when made available by a nation or nations, and redirect casualty flows.
- b. Reassign medical personnel, as and when made available by a nation or nations, to other nations' medical assets.

- c. Redistribute medical materiel, as and when made available by a nation or nations, to other nations' medical assets.
- d. Redeploy medical assets, as and when made available by a nation or nations, to augment other nations' medical resources.

Medical Roles of Strategic Commands

0178. SCs' (SHAPE and SACLANT) medical roles are as follows:

- a. Strategic Guidance and Doctrine. SCs will:
 - (1) Translate medical principles and policies into their doctrine, concepts, directives and procedures in agreement with Nations.
 - (2) Provide the strategic level medical support plan. Plans and concepts are developed in cooperation with the national and Regional Command (RC) levels.
 - (3) Review and approve RCs' medical plans.
 - (4) In conjunction with the RCs and CNs prepare and negotiate HN Support (HNS) arrangements and Status of Forces Agreements (SOFAs), including medical aspects.
- b. Force Generation. The responsible SC allocates resources to include funding, to support the NATO commander's operational plan through the force generation process in concert with the nations. This is especially applicable to non-Article 5 missions.
- c. Support of Forces. SCs may assist in the coordination of medical support to CNs for specific national requirements identified either before or during the execution of a NATO operation.
- d. Medical C2. The responsible SC assists in developing the medical C2 organisation and multinational medical support arrangements in coordination with the operational command and nations during the initial planning stages of operations. The responsible SC supervises and assists medical C2 organisation during the mission.
- e. Stockpile Planning. For Article 5 operations SCs are responsible for stockpile planning guidance in conjunction with nations. Medical stockpile planning, as regards the establishment and maintenance of minimum medical material and pharmaceutical levels, as well as surge production capabilities, is aimed to ensure stocks of adequate medical supplies and equipment to support forces assigned and earmarked to NATO.
- f. Capability Packages (CPs). SCs and nations are responsible for the review of CPs to support NATO medical contingency planning.
- g. Reporting. The SCs require medical reports as per the Bi-MNC Reporting Directive Volume V.
- h. Assessment of Medical Support Capabilities. SCs in collaboration with operational HQs are responsible for developing evaluation criteria for the certification of medical units of non-NATO CNs prior to deployment. This function will also include guidelines to support the operational NATO commander in conducting inspections, including force protection medical support assessments, of national or multinational MTFs during the conduct of operations.

- i. Medical Information and Intelligence. The dissemination of medical intelligence, acquired through the INTEL Division, as well as other medical information relevant for medical planning purposes.
- j. Medical Surveillance. The SCs assist the operational commanders and CNs in developing evaluation criteria and running medical surveillance programmes to assess the health status of all troops participating in a mission. That includes recommendations for immunisation requirements (in pre-deployment phase) and the establishment of epidemiological surveillance indicators (during operations). The medical surveillance programme might extend to pre and post-deployment fitness screenings and indicators. The SCs' role includes feedback responsibilities to assist in shaping responses to lessons learned and to execute changes to medical support requirements applicable to any phase of the operation.

Medical Roles of Regional Commands (RC) and Combined Joint Task Forces (CJTF)

0179. RC commanders are responsible for the operational level of command.

0180. A CJTF HQ is deployable and its minimum framework staff (CJTF HQ Nucleus) is contained in each RC HQ (Parent HQ). The CJTF HQ Nucleus is expanded to meet the operational requirement through augmentation modules (additional staff elements from other NATO HQs and/or from nations) and support modules (specialised support organisations, e.g. HQ medical support unit).

0181. RC/CJTF commanders assume the following responsibilities:

- a. Contingency Medical Planning. RC/CJTF medical planning is conducted concurrently with the SC medical strategic plans. There is a constant dialogue between the two levels in order to provide transparency of medical planning efforts.
- b. Identification of Medical Support Requirements. The conduct of mission analysis and the identification of medical support requirements are essential. These requirements include the provision of medical resources, medical intelligence, medical communications, CPs, medical host nation support (MedHNS) or local resources and SOFAs. Funding and reimbursement policies should also be established.
- c. Medical Command and Control. Based on the medical planning process and associated planning conferences, the RC/CJTF details the medical C2 organisation and, on TOA, coordinates all aspects of medical support to a specific operation.
- d. Assessment of Medical Support Capabilities. The RC/CJTF commander is responsible for the evaluation of medical support capabilities and certification of non-NATO CNs' medical assets prior to deployment as well as the assessment of all nations' medical support capabilities during deployment³.
- e. Medical Surveillance. The evaluation of troops' health status during deployment is a key responsibility of the operational commander. He will share with the SCs the responsibility of developing mission specific assessment criteria and, in conjunction with the nations, will execute epidemiological surveillance programmes and other evaluation programmes of the health status of deployed troops.

Medical Roles of Component Commands/ Joint Sub-Regional Commands (CC/JSRC).

³ Note that France rejects this authority.

0182. JSRCs and CCs develop joint or specific component orientated medical planning for contingency operations as directed by the RC Commander.

0183. Certain staffs of the JSRCs may provide medical augmentation to a Multinational Joint Logistic Centre (MJLC) nucleus, which is included in each RC HQ (Parent HQ). Medical staff of CCs may take part in operations as directed.

NATO Commander's Medical Staff.

0184. In order to ensure proper medical planning and support for the forces under his command, the NATO commander needs adequate staff to allow him to make assessments, and to plan and deal with the nations' medical support.

0185. Particular importance is to be given to those areas and in those circumstances for which collective responsibility must be exercised. The NATO commander's accountability in the medical field dictates a strong emphasis be given to force protection and related issues.

0186. The development and implementation of a robust medical force protection policy requires at all levels the medical advisor to have direct access to his respective NATO commander and other key command staff elements. Therefore, the medical staff function must be visible within the NATO command HQ staff organisation and, on operation, a medical advisor and his staff will be located at the advisory level in each concerned NATO command.

0187. The broad range of medical advice needed by a NATO commander for Article 5 and non-Article 5 situations requires that his medical advisor is a medical officer (physician) with wide medical, military and staff experience.

0188. During operations, the medical advisor is responsible for the implementation of medical policy and plans and coordination of medical support within his commander's AOR. The relations between the different medical staffs in theatre will be aligned to the authority and responsibility delineated in the C2 architecture by relevant Operational Plans (OPLANs) and Support Plans (SUPLANs).

0189. The medical advisor's staff must be capable of technically overseeing all required medical functions and successfully integrate into the HQ staff structure.

Roles and Responsibilities of Contributing Nations

0190. Medical Support to Contributed Forces. While there may be a variety of options to provide medical support to forces that nations have contributed to a NATO operation, the CNs remain accountable for the health of their own troops. If nations elect to support forces through a national medical support system, it remains vital that they establish a national medical element that interfaces with the NATO medical organisation.

0191. Contribution of Resources. With few exceptions all personnel and equipment required to conduct an operation are provided by CNs. These resources are dedicated, either through planned allocation of forces through the Defence Planning Questionnaire (DPQ) process, or through requirements identified in the contingency planning process. Under NATO procedures, nations transfer authority over their national force contributions to NATO at an agreed time. This transfer may include medical assets that nations nominate as centralised or theatre assets. Type and amount of medical assets and TOA limitations can dramatically affect the actual medical support concept for a NATO operation.

0192. Planning. Nations are involved in the medical planning process from the strategic down to the tactical level. In developing the initial medical support concept it is vital that nations be involved from the outset. This includes the development of the medical C2 architecture, establishment of mutual support

arrangements, and the conclusion of HNS agreements. Inclusion of national influence in the concept and plan development is essential to avoid shortfalls and misunderstandings during the force generation process. This is especially crucial for non-Article 5 missions, where force contributions by nations are voluntary and more likely to be made during crisis planning, in contrast to Article 5 missions, where nations have committed, through the DPQ, forces required to support an established Contingency Operation Plan (COP).

0193. Lead Nation (LN) or Role Specialisation (RS) Mission. Nations may be called upon to coordinate and plan, as well as to provide actual support in specific functional areas, including medical support, to other national forces. In all cases the assumption of these missions is voluntary and coordinated in the planning process.

0194. HNS. Nations may provide HNS, including medical HNS to Article 5 and non-Article 5 operations.

0195. National Support Element (NSE) Establishment. CNs may wish to establish a NSE to coordinate national logistic and medical support functions with other CNs and with NATO commanders' medical staffs. In such cases, coordination with the multinational medical C2 structure is required, along with a reporting framework, to promote good communications between and among levels of command and their respective medical support elements.

SECTION 3 – MULTINATIONAL MEDICAL SUPPORT OPTIONS

0196. The ultimate goal of the multinational medical support concept is optimisation of the use of medical resources through coordination and when possible integration of medical assets and capabilities. This goal can only be achieved through a proper balance of authorities and responsibilities between the NATO commanders and nations. Early and continued interactive dialogue and collaboration among all parties is fundamental.

0197. The NATO commander must be given sufficient authority over the medical resources to enable him to employ and sustain his forces in the most effective manner. If nations wish to achieve economies, especially in management of scarce assets, one way to attain this result is to allow the commander full visibility of the status and disposition of medical resources in theatre.

0198. If nations do not achieve broad and even full visibility of the theatre medical resources, they cannot hope for the potential opportunities and rewards of burden sharing. These rewards may include achieving synergy in provision of medical support services, while also attaining economy, efficiency, and effectiveness. The lack of information and coordination may result in a shortage and, at the same time, a redundancy of precious assets.

0199. From the beginning of the planning process the NATO commander and his medical staff have a key role in tailoring the medical support to meet the mission requirements. They also have a key role in coordinating medical functions and activities during the various phases of operations, and in some cases achieving redistribution or integration of medical assets to fulfil collective needs.

0200. The overall medical support for an operation can be optimised if it is coordinated to:

- a. Avoid competition for scarce assets.
- b. Improve asset distribution.
- c. Reduce national unused capacities while maintaining overall capacity to cope with emergencies.

- d. Reduce costs.
- e. Reduce logistic footprint.
- f. Share access to in-theatre medical capability.
- g. Coordinate and integrate medical assets.
- h. Achieve interoperability of medical support assets and capabilities.
- i. Explore all means to achieve collective synergy in the provision of medical services.

0201. Medical support options range from purely national support on one hand, to Multinational Integrated Medical Units (MIMUs) on the other. NATO forces can be supported by a combination of the options available.

National Medical Support

0202. National medical support will flow from national sources, usually based in the respective nation, to their most forward deployed national units in the AOR. Each nation maintains absolute control over its own assets. Role/Echelon 1 medical facilities are generally provided under this option. In the maritime environment Echelon 2 is also generally similarly provided.

0203. While there may be significant advantages to using multinational medical support options, 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.

0204. But, even when CNs relies solely on national medical resources, the NATO commander retains the responsibility to co-ordinate the overall medical support.

Mutual Support Agreements (MSA)

0205. CNs has the option to develop mutual support arrangements, bi-laterally or multi-laterally to ensure medical support to their forces. This is especially useful when CNs have low density force contingents collocated with the forces of another nation that has the capacity to support them, or during specific operations or phases of an operation (e.g. during a relief in place or when one formation is passing through another).

0206. Most MSAs will be made at the national level and co-ordinated by the SC. NATO coordination is essential to ensure the support arrangements fit into the overall NATO concept of support.

Role Specialisation

0207. In a particular operation common supplies and services may most efficiently be provided to all or a portion of the force from a single designated nation that has unique and qualified capabilities. A single nation may provide specified support to the entire, or a portion of, the force with customer nations compensating the Role Specialist Nation (RSN) for the support provided. Examples of candidates for role specialisation include certain medical services such as strategic AE or speciality care.

0208. In all cases where a RSN is designated, the support is coordinated and centrally managed by the NATO commander in the way that he determines will best support the operational concept. As a final point, before designating a RSN, national laws concerning the transfer of military goods and services must be considered.

Lead Nation

0209. LN support involves a nation assuming responsibility for coordinating and/or providing specified support and other functions within a defined geographical area to other CNs. Normally reimbursements to the LN will be a part of this arrangement. In a NATO operation more than one LN could be designated to provide a specified range of support.

0210. A LN mission is similar to a RSN mission with the main difference being that the LN mission is wider in scope and geographically orientated. Medical support to a HQ and AE covering a specific sector in the area of operation can be included under this option.

Multinational Integrated Medical Units (MIMU)

0211. To take advantage of economies of scale, medical units composed of more than one nation may provide medical support. This is an attractive support option when a single nation is capable of providing the nucleus and the command structure of a medical facility, which is supplemented/augmented with capabilities, assets, and services by other nations.

0212. Common funding, cost sharing, reimbursement or provision "free of charge arrangements" should be agreed to as a part of MIMU participation.

Medical Host Nation Support

0213. HNS is a result of an agreement between NATO and/or CNs and the government of the Host Nation (HN), receiving NATO or other foreign forces operating in, or transiting through its territory, so that provisions are established to facilitate the accomplishment of the military mission. It is the government of the HN that provides what is needed out of national assets, or which makes other arrangements for its provision. HN's departments or agencies are involved in writing the HNS plans, controlling their implementation, and monitoring the support provided.

0214. The quality and quantity of medical resources available in the TOO is important in determining the size and capability of the medical organisation the force must establish. The more HNS available for force use, the less has to be found from CNs. Resources which may be obtained through HNS include:

- a. Patient evacuation assets (air, land and maritime) for both intra-theatre and inter-theatre evacuation.
- b. Treatment capability at every level of care but particularly at Role/Echelon 3.
- c. Medical logistics support, including the provision of drugs, consumables, disposables and blood products.
- d. Essential non-medical support, including buildings, water, power, disposal of waste, laundry, labour, etc.

0215. The appropriate NATO commander must be involved in the development of HNS arrangements and is responsible for HNS planning and the development of Memoranda of Understanding (MOU). This will not affect the rights of CNs to negotiate and conclude bi-lateral HNS arrangements. However, as far as possible the number of MOUs should be limited with a single MOU supporting a broad range of potential operations. The NATO commander should be invited to participate in bi-lateral HNS negotiations, where he may promote cooperation between CNs and the HN. Furthermore, NATO commanders are authorised to negotiate and conclude HNS arrangements for NATO Multinational HQs, designated multinational units and selected theatre-level support.

0216. In the Article 5 scenario the support provided by the HN provides a crucial supplement to organic logistic support. From the medical standpoint, resource availability, compatibility of equipment, interoperability of medical support structures (both military and civilian), acceptability of procedures and quality of medical care available should be carefully considered.

0217. In non-Article 5 scenarios NATO forces can be deployed in areas in which local medical structures do not meet the same standards enjoyed by NATO nations. These areas may not be subject to the same regulations regarding the environmental impact of medical waste, or may utilise medications and supplies from sources not approved by NATO nations, or may not meet minimum standards for manufacture, storage or transportation. As an additional complication, local medical resources may have been damaged by conflict or may be overwhelmed providing care for the local populace and/or displaced persons.

0218. Overall a mixture of medical intelligence analysis and reconnaissance and the political decision will assess HNS capability by the HN to make resources available to the incoming force. A key issue will be the standards of medical care available, compared to NATO force and national contingent criteria. It is vital that the NATO commander's medical staff is directly involved in the assessment of MedHNS capabilities and in any attempts to develop HNS agreements in the medical field. Furthermore at all times the use of local resources must be authorised or coordinated with national medical staffs on the ground.

0219. Medical HNS potentially has many advantages, if medical care is available and of acceptable quality and reliability (particularly for handling MASCAL, incident response, and other medical treatment surge needs which may occur on an infrequent and unplanned basis). Medical HNS is particularly useful during deployment, when deploying NATO medical facilities may not yet be properly in place and when the expected workload will not unduly stretch available and suitable HNS facilities. However, there are many issues that must be resolved before a decision to use MedHNS can be made and many of these can only be resolved by medical personnel and those experienced directly in medical logistics. Therefore, planning for MedHNS must not be initiated without input by senior NATO or national medical personnel.

Local Contracting

0220. "Local contracting" refers to purchasing supplies from the local economy, in deals struck directly with local suppliers. This alternative applies in cases where a formal HNS agreement is not made or there is no legitimate or recognised government with which to formalise a HNS agreement. Local contracting will be considered a viable option in meeting part of the NATO force medical support requirements.

0221. Most contract actions will be funded nationally. However, NATO will coordinate national contracting efforts to ensure enhancement of the contract process, reduction of competition between CNs and realisation of economies of scale where possible. The NATO Maintenance and Supply Agency (NAMSA) has a role of providing expert assistance in contracting for the NATO commander and can also act as a broker for individual CNs.

0222. Even though the provision of pharmaceuticals and certain kinds of medical materials and services can be locally contracted, at all times there is the requirement for medical expertise from the earliest stages of the contracting process. Only experienced medical personnel are trained and capable of making some of the quality of care determinations necessary for the safe and effective procurement of local medical materials and services. The contracted support must conform to respective national regulations and NATO policies and NATO STANAGs governing materiel and support. More detailed instructions related to MedHNS and local contracting are given at Annex A to this chapter.

NATO Maintenance and Supply Agency (NAMSA)

0223. NAMSA has the capability for providing support for operations through collaborative purchasing of stocks at an international level. This option should be considered during the planning and execution of the mission.

0224. Especially in the medical field, national regulations and licensing constraints exist and must be taken into account. The exchange of medications and even procurement of spare parts for medical equipment could be problematic. However, NAMSA’s intervention may have a positive impact on interoperability and interchangeability of medical materiel and supplies during operations. NAMSA is developing new capabilities in the area of medical supply such as; the joint procurement of common items, specifically individual NBC protection, as encouraged by the Defence Capabilities Initiative (DCI) and the provision of databases for supply and interoperability.

Multinational Provision of Medical Supplies and Services

0225. Whilst planning to provide medical support to the standards acceptable to CNs, it is essential that every effort be made to achieve economies of scale and effort, because:

- a. Medical assets are expensive to procure and difficult to obtain.
- b. Medical assets under-employed in one TOO are not available for another.
- c. All medical assets, particularly Role/Echelon 3 and evacuation organisations, require much logistic and engineer effort to sustain them even when they are not in active use.

0226. Maximum effort must be made to tailor medical support to the predicted requirement. Some contingents may have an abundance of assets whilst others may lack all but the fundamentals. NATO commander’s medical staffs must aim to find a balance of capabilities and strive for the most cost-effective means, exploring all possible multinational modalities for the provision of medical supplies and service.

0227. The medical services and supplies provided by multinational provision will be determined in concert with nations before and during an operation. Type and level of multinational medical support will depend on the degree of medical interoperability achieved by the CNs and national desires. Table 2-1 shows different options for multinational provision of medical services and supplies.

| Type of support/supply/ service | HNS/Contracting | RSN | LN | Bilateral Agreement | MIMU |
|-------------------------------------|-----------------|-----|----|---------------------|------|
| Bulk Water | X | X | X | | |
| Bottled water | X | X | X | | |
| Environmental Health Laboratory | X | X | X | X | |
| Sanitation/Refuse/Salvage | X(1) | | | X | |
| Blood products | | X | X | X | |
| Pharmaceuticals & Medical Materials | X | X | X | X | |
| Role/Echelon 1 | | | | X | |
| Role/Echelon 2 | X | X | X | X | X |
| Role/Echelon 3 | X | X | X | X | X |
| Role/Echelon Augmentations | X | | X | X | X |
| AE Assets | X | X | X | X | X |

Note (1): Execution on national contracted basis, coordination on a multinational basis.

Table 2-1 - Different options for multinational provision of medical services and supplies.

National Support Elements (NSE)

0228. Regardless of the level of multinational or national medical support option that a nation chooses, it is likely to employ a NSE to support its forces. The NSEs can be located in and/or out of the TOO, to include intermediate sites between the CN and the most forward location of their contributed troops.

0229. The CNs must ensure consonance with the NATO commander's concept of operation and coordination with the NATO medical organisation. NSEs operating within the NATO commander's AOR will be subject to the MOUs, SOFA and other HN arrangements.

0230. NSEs, while remaining within their national chains of command, will provide reports on their medical assets to the medical staff at higher multinational command levels. The content, format and frequency of these reports will be established on a collaborative basis following a policy formalised at theatre level. The reports will also contain agreed upon information on the medical humanitarian assistance and civil implementation support provided by each nation.

Financial and Legal Aspects of Multinational Medical Support

0231. In planning for Allied Joint Operations, nations will inevitably have to deal with financial and legal aspects of their mutual relations in that specific operation. The NATO SOFA outlines the basic legal and financial principles governing the relations amongst NATO Nations.

0232. Procedures exist in NATO describing how to deal with mutual logistic assistance. They are:

- a. STANAG 3881 - NATO Standard procedures for compensation and form for request and receipt of support in the form of supplies and services
- b. STANAG 2034 (Edition 4) - NATO Standard procedures for mutual logistic assistance

0233. These documents establish procedures for effecting logistic assistance, including medical logistics, during peace, crisis or conflict, to the forces of NATO nations, international HQs, or multinational formations.

0234. They are to be used for support transactions, carried out under the authority of:

- a. Bilateral and multilateral agreements.
- b. Agreement reached by national representatives within Logistic Coordination Centres (LCCs) at strategic level.
- c. Arrangements concluded by national and logistic commanders under powers delegated by national authorities.
- d. ACE Directive 85-3, in which allied commanders are given certain powers to reallocate logistic resources.
- e. MC 319/1, in which under certain conditions, NATO commanders are given the authority to redistribute logistic assets within their AOR.

0235. Nations may provide services to one another:

- a. Free of charge.
- b. On a reimbursable basis in cash, or within 60 days following an invoice procedure.

- c. With an agreement to return items supplied for use.
- d. Under a replacement in kind/equal value arrangement.

0236. Contingency planning arrangements will determine the way the CNs wish to handle these aspects of multinational medical support. It is recommended to agree on one way of settlement and standard prices for services or supplies before deployment starts.

0237. The way to deal with legal claims, eventual additional requirements for insurance, etc., have to be determined by participating nations, in relation to existing SOFAs, MOUs or Memoranda of Agreement (MOA).

0238. Medical support to local populations may be provided on a humanitarian basis. Based on appropriate legal guidelines, in compliance with the rules of engagement and within capabilities, any indigenous personnel may be provided with emergency medical care. Provision of further levels of care, including evacuation abroad for specialised care and follow-on, are subject to national approval. A common policy addressing terms and conditions of medical support that may be provided on a national or multinational basis to the local populations, including the issue of reimbursement, might be established for a NATO operation. Considerable differences in national policies, which might be perceived as biased and discriminatory, have the potential to backfire on NATO operations. Humanitarian provision should be seen to be equitable between the different factions, which may be receiving it. It is also important that the level of aid provided is in keeping with the infrastructure of the country and does not create a level of provision or dependency, which cannot be maintained once the NATO forces withdraw.

0239. A corollary issue to be addressed is medical support provided to International, Governmental and Non-Governmental Organisations (NGOs). On a case by case basis, when requested, medical facilities can, within capabilities, provide support to these organisations, but only after coordination with the appropriate principal staff and approval by the theatre commander, with the consent of the nations. Formal agreements governing medical support to NGOs and other personnel might be established before specific operations start. These agreements should address the types and conditions of medical support that will and will not be provided on a multinational or national basis and also address the issue of reimbursement.

Multinational Medical Support Enablers

0240. Nations play the most important role in the implementation of multinational medical support concepts, through enablers that are powerful leverages in facilitating medical coordination and integration. The key enablers, which must be proactively emphasised by all nations, are:

- a. Commonality of medical principles, policy and doctrine.
- b. Commonality of medical standards of care.
- c. Standardisation of treatment regimes.
- d. Standardisation and qualification of medical personnel.
- e. Interoperability of main equipment and interchangeability of supplies.
- f. Standardisation of medical records, record keeping, and medical surveillance data.
- g. Multinational and joint exercises in which medical equipment, procedures, personnel, and other components of medical support are practised in real-world operational settings.

- h. Reduction of the language barriers.
- i. Mutual trust and the ability for medical personnel to exercise and operate together.
- j. Harmonisation of laws and regulations concerning the transfer of military medical goods and services.
- k. Effective and transparent common system of pricing, accounting and reimbursement for medical services and supplies.
- L. Interoperability and enhancement of medical CIS.

0241. As fundamental documents that provide agreed policy and standards among NATO nations, STANAGs and Allied Publications contribute an essential framework for specific support concepts, doctrines, procedures and technical designs. Standardisation allows synergy of forces and capabilities and promises considerable savings. Therefore it should be pursued vigorously.

SECTION 4 - MULTINATIONAL MEDICAL COMMAND & CONTROL ARCHITECTURE

Multinational Medical Command and Control (C2)

0242. A flexible C2 structure must be established to coordinate national and multinational medical support in order to follow the NATO commander's concept of operations. C2 activities must be organised based on the operational mission and coordinated with nations to obtain support and manning for the structure. For the sake of simplicity the layers of command should be kept as few as possible and the responsibilities clearly delineated, fully understood and agreed upon. The lines of medical accountability and C2 must be clearly established in relevant OPLANs and agreed upon by CNs.

0243. The medical C2 organisation in theatre must be capable of planning, executing, controlling, sustaining and assessing the full range of medical support functions. It must also be capable of passing prompt and accurate operational medical advice to respective commanders and pertinent general medical information to the NATO commander's medical staff. In fact the medical C2 structure must provide the NATO commander with visibility over medical implications that will impact on operations.

0244. The medical C2 structure should be granted visibility and autonomy, as medical personnel face unique problems affecting the health of armed forces. Many medical decisions have a logistic impact (e.g. the number and siting of resource intensive hospital beds, the evacuation policy time frame and movement of casualties). Other medical support activities are not logistics related, such as:

- a. Collection of medical intelligence.
- b. Advice to commanders on health risks and appropriate medical responses to reduce such risks.
- c. Establishment and management of a multinational epidemiological surveillance system.
- d. Establishment and conduct of a preventive medicine information exchange and education system.
- e. Conduct of medical force protection assessment of medical support readiness, etc.

0245. Other medical activities are bound to a level of professional confidentiality (patient medical data exchange) or timeliness (provision of care) which demand specific qualifications, requirements and procedures.

0246. These requirements dictate that medical personnel be involved in all medical issues. That demands a specific medical C2 structure in theatre, distinct from the logistics one, whilst fully coordinated with it. “Medical support” as a concept is indeed integrated with “logistics” as part of a functional system of support, but is not necessarily subordinated to the logistic organisational structure.

0247. Medical C2 should be so organised that each level of the command structure designed for a specific operation must have a Senior Medical Officer (SMO), designated the “Formation Surgeon”, directly accountable for coordination and guidance in medical matters and with direct access to the operational commander. The formation surgeon must be part of the operational team and maintain a detailed understanding of both current and future plans. To achieve this task he must : be co-located with his commander; either attend or be represented at planning meetings and operational briefings; and establish effective interactions with other principal commanders’ staffs and advisors without intermediaries.

0248. The formation surgeon is located at the advisory level in the commander’s staff and must be supported by an appropriate number of qualified and experienced medical staff. The formation surgeon and his staff form the “Surgeon Group”.

0249. If there are medical staff sections at HQ level embedded in other J staff cells, they are to follow technical directions given by their relevant formation surgeon.

0250. Whilst overall policy, direction and control of medical activity are vested in the various key medical offices, implementation is effected through a comprehensive staff structure. To achieve a full operational and coordinating capability, it is crucial that the medical personnel are identified by the parent NATO HQ and CNs and fully trained in the medical management of operations according to their job descriptions.

0251. To accomplish their specific mission and tasks across the whole medical C2 structure, the multinational formation surgeons and staffs work under the authority granted to the commander they are assigned to and exercise, as directed, coordinating, assessment, inspection and redistribution authorities in the area of medical support. It should be noted that the delegation of authority in terms of Operational Command (OPCOM) and Operational Control (OPCON) does not include a delegation or change of administrative or logistic responsibilities. Any such delegation or change must be specifically ordered either separately or together with the delegation of command authority. On occasion, changes to the degree of command authority may require changes to administrative or logistic responsibilities, and circumstances will arise in which administrative or logistic considerations place constraints on operations. Therefore, a delegating authority must always consider the possible administrative and logistic implications of any intended operational arrangement.

0252. The medical C2 architecture includes the SC medical advisors and extends through the Theatre Surgeon (TS) and other multinational formation surgeons (e.g. Division Surgeon, MNMF Surgeon, etc.) to all medical assets in theatre. An example of a medical C2 structure in a multinational joint operation is given below.

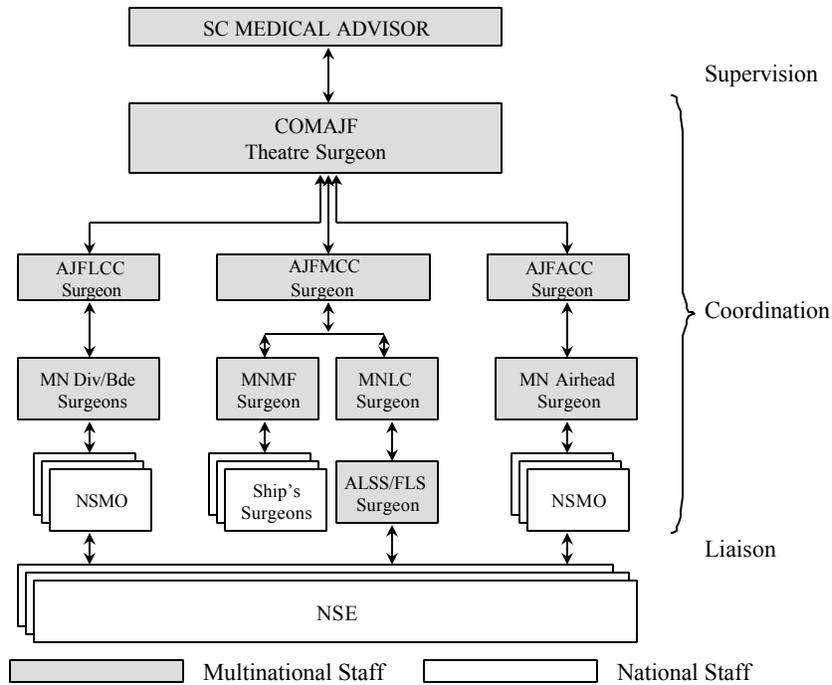


Fig. 2-1 - An example of a possible medical C2 structure in multinational joint operations.

SC Medical Advisor

0253. At SC level medical representation may be activated in the Joint Operations Centre (JOC), Strategic Direction Centre (SDC) and other logistic coordination centres, such as the ACE Logistics Coordination Centre (ALCC), which may be established to deal at the strategic level with crisis management. Depending on circumstances, the medical representation in these elements may be occasional or permanent.

Theatre Surgeon

0254. On operations, the medical advisor of the HQ providing the HQ staff for the CJTF will normally serve as the TS. He is aligned at the advisory level in the CJTF HQs with an appropriate staff element.

0255. He is responsible for setting medical policy for the theatre, coordination of in-theatre medical resources, and provision of joint medical guidance through liaison with multinational component command surgeons.

0256. The TS will:

- a. Coordinate all medical force-protection related actions (preventive medicine, medical intelligence, epidemiological and environmental survey, hygiene and sanitation, veterinary services).
- b. Establish an overall MASCAL Plan, in coordination with other HQ staffs.
- c. Provide medical NBC advice.

d. Direct the preparation and maintenance of a summary of the medical support capabilities in the theatre and other relevant medical information (Theatre Medical Handbook) for theatre-wide dissemination.

e. Coordinate with and support Civil-Military Coordination (CIMIC) staffs in the area of public health and humanitarian assistance throughout the theatre.

0257. The staff of the TS expands through national augmentees from a nucleus to a full establishment, able to address the whole spectrum of medical issues that the operation demands.

Medical Coordination Centre (MEDCC)

0258. The MEDCC is the executing body of the medical organisation for all CJTF operations. The MEDCC works under the technical direction of the TS (Fig. 2-2) and co-ordinates multinational joint and multifunctional issues, including AE. The MEDCC will normally be placed in the Multinational Joint Logistic Centre (MJLC). When an MJLC is not formed, the MEDCC will be part of the J 4 staff.

0259 The MEDCC is designed as a modular structure that encompasses two cells, Medical OPS/PLANS Cell and the Patient Evacuation Coordination Centre (PECC). The TS may advise, according to the specific needs of the mission, on the number and position of personnel employed within the MEDCC.

0260. The MEDCC, like the TS staff, expands from a nucleus through national augmentees to its required establishment. Due to the lack of medical specialists in the NATO Peace Establishment (PE) structure national augmentation will be required from the early stage of an operation. The size of the MEDCC will be tailored during the planning process and either expanded or reduced according to the specific mission phases.

0261. The main function of the MEDCC is the execution of medical plans and the implementation of medical policies set by the TS. It coordinates implementation and execution of the full spectrum of medical and health plans between all components of the CJTF. The MEDCC provides professional guidance and executive oversight for the medical section when the MJLC Support Unit is established.

CJTF HQ Medical Staffs

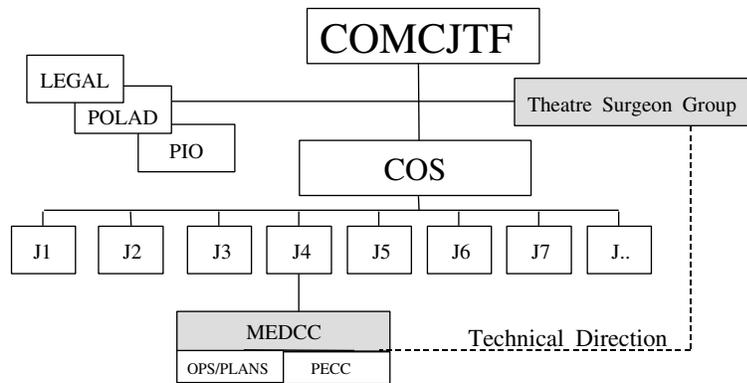


Fig. 2-2 – Relationship between the Theatre Surgeon Group (TSG) and the MEDCC

Multinational Component Command Surgeon (MNCCS)

0262. The function of the OPS/PLAN Cell is to coordinate current medical operations and develop medical support planning for future medical operations as directed by the MEDCC Chief. It develops and updates the theatre-level MASCAL Plan and cooperates with the PECC in case of its execution. It provides the expertise required to implement the preventive medicine and environmental policies directed by the TS. The OPS/PLAN Cell co-ordinates the activities of the "Environmental Health Team". During a CJTF mission there will generally be the need for qualified personnel to assess the health risk and to provide preventive and environmental medicine support. As a theatre asset these personnel with the relevant equipment will be found through the force generation process and employed under the control of the MEDCC environmental health officer.

0263. The PECC provides the theatre level medical evacuation and regulating functions for all patients, moving beyond formation boundaries, in conjunction with force components and theatre logistic and movement control agencies. It is responsible for patient tracking and the maintenance of the medical facility capability database. The PECC must have its own dedicated communication links to the key nodes of the evacuation system. Should a MASCAL situation arise, then the PECC will implement the TS's decisions and act as the interface between the TS and the units involved in the MASCAL.

0264. The NATO medical support concepts embrace jointness, but each component (Land, Maritime, and Air), due to the nature of their mission, has a different approach to its implementation. Whilst it is essential that support elements remain flexible and responsive to the requirements of the component commander, where efficiencies can be gained, jointness should be pursued down to the lowest level acceptable and practical.

0265. On operations, the MNCCS is aligned at the advisory level in the component commander HQ together with an appropriate multinational staff element.

0266. Medical planning and coordination will focus mainly on medical support to the component. The MNCCS and his staff are responsible for component medical planning, formulation of medical requirements to implement component plans, monitoring and evaluation of medical resources of the component. The MNCCS will supervise component-wide medical force-protection related actions, provide component-orientated medical NBC advice; establish component MASCAL plans to be integrated into the overall MASCAL plan.

0267. The integration of component medical plans and requirements into a comprehensive theatre-level joint plan is essential. It may bring the nations considerable savings, since the assets may serve more than one component at the same time or in different phases of the operation.

0268. Through liaison with the TS and multinational formation surgeons, the MNCCS will ensure uniformity of medical policy and guidance and coordination of medical resources. Reports will be prepared and delivered as required, within the overall medical C2 architecture.

0269. Should a Multinational Logistic Centre (Land) (MNLC (L)), a Multinational Logistic Command (Maritime) (MNLC (M)) or a Multinational Logistic Centre (Air) (MNLC (A)) be established, the relationships between the medical staffs embedded in it and the MNCCS will mirror those existing between the TS and the MEDCC.

Multinational Formation Surgeon (MNFS)

0270. The multinational formation surgeon (multinational Division/Brigade, Multinational Maritime Force (MNMF), multinational Airhead) and staffs will be responsible for the coordination of medical support at tactical level, in accordance with the medical policy and guidelines established at theatre level.

0271. The relationships between the MNFS and his commander will mirror those described at theatre and component level. The MNFS will have the same tasks as the surgeons at higher command level, but he will focus at formation level.

0272. The MNFS will maintain liaison with the component and TSs to ensure integration of medical planning at least one level up and uniformity of medical policy and guidance. He will liaise with the senior medical officers of the CNs, to achieve visibility of capabilities, readiness and sustainability of their medical assets and coordinate medical support in his AOR.

National Senior Medical Officer (NSMO)

0273. An efficient liaison between national contingents and the theatre medical C2 structure must be established to ensure that nations are aware of and react appropriately to both national and NATO priorities, and that such priorities are harmonised. The theatre commander will, in coordination with medical staff of all participating national contingents, establish procedures for the administration, management and reporting of medical support and casualty evacuation.

0274. The CNs will each designate their NSMO to liaise with the theatre medical C2 structure. The NSMO will be responsible for reporting one level up the information concerning capabilities, readiness and sustainability of national medical assets and collecting data for the epidemiological surveillance system. He will also provide a focus for coordination of and sharing of medical information and intelligence.

0275. A recommended option to interface the multinational medical C2 structure and national medical systems is the manning of the formation surgeon staff by the concerned nations.

0276. National input will be coordinated within the theatre-wide medical organisations as established in relevant OPLANs/SUPLANs. The national assets will follow the medical policy guidelines issued by the TS and will incorporate them into the national directives and SOPs.

National Medical Liaison Teams (NMLT)

0277. In any multinational theatre, all nations should take into account that occasionally patients will be treated and evacuated in each other's medical structures, on an emergency basis or as a result of arrangements in application of multinational medical support options. It is therefore essential that each nation establishes a NMLT within the TOO.

0278. The function of the team is to deal with all issues related to a patient evacuated and treated through another nation's medical support structure (e.g. language problems, medical files transit, coordination for evacuation, legal and budgetary aspects of treatment and transit).

Liaison with the HN and Civil Agencies and Organisations

0279. Coordination and cooperation between NATO and HN military and civilian authorities must be carried out at all appropriate levels to optimise medical support. Cooperation requires a clear division of responsibility, and in turn a clear understanding of the various national capabilities and limitations, and of the NATO medical support structure. Cooperation also extends to Governmental and Non-Governmental Organisations, which may operate alongside NATO in the theatre.

0280. Specified points of contact and liaison with HN and Civil (International, Governmental and Non-Governmental) Agencies and Organisations must be identified at every level of the command structure.

0281. Civil Agencies and Organisations may be involved in assisting the local population, including medical services. Links are to be established by the C2 medical architecture in theatre, at appropriate level in order to coordinate efforts, share important medical information, and to optimise resources in the achievement of adequate medical support.

MEDICAL HOST NATION SUPPORT (MedHNS)

1. NATO has, over the decades, developed a system of HNS for operations in defence of Europe, including the multinational medical support of such operations. In the Article 5 scenario, it was envisioned that, for the most part, force movements and locations would be within the boundaries of the NATO nations. The procurement of supplies and services under such circumstances was well-defined, and in many cases involved provision or purchase of materiel or services from those Allied nations within whose boundaries NATO forces were located or were transiting. Quality of available resources and acceptability of medical practices were unlikely to be of concern.
2. HNS in the medical field during an Article 5 scenario remains a complex but resolvable issue, whilst in non-Article 5 missions the issue of MedHNS has become more difficult to resolve. In evaluating the desirability of using MedHNS or local contracting, it must be realised that medical support is perhaps the most complex of all logistics operations, and has extremely high political and media interest. Command, logistics staff and medical authorities must carefully coordinate their efforts to ensure that appropriate decisions are made.
3. Non-Article 5 operations may make the use of MedHNS desirable from several viewpoints. As a general rule current NATO doctrine does not plan to provide health care to local populations. However, Peace Support or Humanitarian/Disaster Relief operations will probably result in more frequent and direct contact with the local population than would normally be seen in combat operations. Integration of MedHNS with the NATO medical organisation in this arena may offer advantages both of scale and of political support. Provision of medications and supplies to support paediatric, geriatric, and obstetric problems in the local population may best be served by use of In-Country Resources (ICR), if available, rather than by providing NATO resources directly. The decrease in tonnage and personnel to be transported occasioned by use of MedHNS or contracting would obviously be a major benefit to the logistical system. Counterbalancing these beneficial potentials are the facts that:

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- a. Local medical care practices (eg the use of medications or surgery) may not be in accord with those practices as carried out in the NATO nations.
 - b. War or disaster may have depleted local medical stocks.
 - c. Local medical production may not meet NATO standards for quality or cleanliness.
 - d. War or disaster may have damaged local medical facilities.
 - e. Local medical practices may not meet NATO standards (for example, in some cultures, nursing is provided by families rather than by trained hospital personnel, as are meals for patients).
 - f. Most importantly, all local medical resources may be needed for the local population, with limited availability for use by NATO forces. In this case, it is possible that attempting to purchase large stocks on the local economy (either by the HN or by NATO directly) may produce those stocks at the expense of the civilian populace. If purchases could disrupt the local market, supplies should be purchased and brought in from outside the affected area.
4. Even if ICR appear to be available, the appropriateness of utilising local sources for medical supplies and services must be carefully considered in terms of:
- a. Expected timing/rate of use or distribution.
 - b. Speed of delivery possible from local sources.
 - c. Appropriateness of the items available and quality thereof.
 - d. Likely effects on the local market.
5. Particular factors, which may justify local procurement (if supplies of adequate quality and quantity are available), include:
- a. Such action will lead to decreased impact on the long-range logistic transport system.
 - b. Locally available items may be better suited to local needs than any which would be imported (particularly important when providing care to local populations, should that become an assigned mission).
 - c. Service and repair facilities are available for local manufactured materiel, but not for imported materiel.
 - d. It may be desirable to stimulate the regeneration/growth of local production capabilities.
 - e. During the initial relief phase of an emergency operation, urgency of delivery may be an additional consideration. If needed materiel is available for immediate delivery locally and will be put to use before any supplies could be brought in from NATO nations, local purchase may be beneficial.
6. Types of ICR which might be desirable, and some questions which must be asked prior to agreeing to make use of them, include:

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- a. Medical Equipment:
 - (1) Is the equipment available safe and effective.
 - (2) Do NATO personnel know how to use it appropriately.
 - (3) Are support/maintenance materiel available (specialised tools, repair parts).
 - (4) Is this equipment sterilisable by means available to the NATO forces.

- b. Medications:
 - (1) Are drugs and infusions available which meet NATO standards for purity and effectiveness.
 - (2) Have such medications been certified for use by the NATO nations.
 - (3) Can delivery be guaranteed on specified schedules.
 - (4) Can refrigeration or other environmental requirements be guaranteed during transit and storage.

- c. Medical Supplies:
 - (1) Do available supplies meet NATO standards of cleanliness and storage.
 - (2) Can delivery be guaranteed on specified schedules.

- d. Medical Storage:
 - (1) Is bulk storage available which is accessible, securable, and if needed climate-controlled.

- e. Medical Evacuation:
 - (1) Is medical evacuation assets (either ground, air or maritime) available.
 - (2) Are medical personnel provided, trained and certified to give care enroute.
 - (3) To what standards should such personnel be certified.
 - (4) How will such certification be documented.
 - (5) Will NATO standard stretchers and other medical equipment fit appropriately into the vehicles.
 - (6) Who will provide fuel and maintenance for the vehicles.
 - (7) How will maintenance and safety be documented, particularly in the case of AE.
 - (8) If there is any possibility of armed conflict, does the transport meet the prescriptions of the Geneva Conventions in terms of markings and attendents' identification.

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f. Medical Care:

- (1) Is medical care available of quality acceptable to NATO forces.
- (2) What is the training level of care providers, and how is this training documented.
- (3) How is the care given to be documented?
- (4) What provisions are made for determining the patient's wishes and ensuring that all care is given in accordance with patient desires and with his or her consent.
- (5) Is nursing care provided as a normal part of hospital care, or must the unit or family provide this.
- (6) Is food service provided to patients, or must the unit or family provide that.
- (7) How, and in what detail, will medical care given be documented, and what documents will accompany patients transferred.
- (8) What liaison personnel are required in local hospitals to ensure that patient-physician-NATO communication and reports occur.
- (9) What reports are required.

g. Medical Waste Disposal:

- (1) What types of medical waste will be generated.
- (2) Who has responsibility for disposing of it.
- (3) In what way will it be disposed of.
- (4) What standards for environmental cleanliness will be maintained.

7. If satisfactory solutions can be found to problems encountered in reviewing the above questions, use of ICR either through MedHNS or through contracting may prove to be a viable solution to many problems of providing medical support both in Article 5 and in non-Article 5 scenarios.

CHAPTER 3 - MEDICAL EVACUATION CONCEPT

SECTION 1 – MEDICAL EVACUATION

General

0282. The main aim of this chapter is to describe a concept of medical evacuation for Allied combined joint operations, which is consistent with the principles and policies dictating the organisation and capabilities of the medical evacuation system whilst taking into account the development of multinational operational integration, as regards AE.

0283. The medical evacuation concept described in this chapter does not impose a unique mandatory evacuation system on nations. It should enable nations to maintain their national evacuation procedures as far as possible. At the same time it encourages smaller nations to plan for reliable, cost-effective AE to medical facilities where they can subsequently collect their patients under non-threatening conditions. The concept may facilitate bilateral or multilateral agreements and promote common planning, programming, and training.

0284. Evacuation of casualties is a fundamental aspect of medical support. Movement of casualties is not their simple transportation to a suitable MTF but is part of the continuum of their treatment and care, and is therefore, a medical responsibility.

0285. To achieve its mission, a medical evacuation system must have the following capabilities:

- a. The ability to evacuate casualties to a medical care facility 24 hours a day, in all weather, over all terrain and in any operational scenario.
- b. The provision of clinical sustainment of the casualty throughout the journey, using appropriately trained clinical staff.
- c. The ability to regulate the flow and types of patients when circumstances require and accurately track patients throughout evacuation.

Medical Evacuation Assets

0286. To meet the evacuation demands a spectrum of evacuation assets will be required as follows:

- a. Intra-Theatre assets, appropriate to the mission, which may include high mobility wheeled or tracked ambulances (including armoured), ambulance buses, helicopters, fixed wing aircraft, trains and boats/ships.
- b. Inter-Theatre assets. They will also be mission dependant. The most likely option will be to use fixed wing aircraft, but helicopters, ships and trains might also be available, depending on the nature of the TOO and movement distances involved.

0287. Medical evacuation assets must have communications on board to allow:

- a. Appropriate assets to be directed to incidents and subsequently directed to the most suitable MTF.
- b. Reduced response times by increasing flexibility.
- c. The targeting of assets, thus reducing the numbers of medical evacuation assets required.
- d. Direct communication at the scene of an incident.
- e. Direct communications between in-transit medical staff and the receiving clinicians. This allows advice to be given and permits the receiving facility to plan the availability of appropriate staff and equipment.

Interdependence of Evacuation and Treatment

0288. The availability and type of evacuation assets to be utilised, the length of evacuation route and the operational environment will determine the size and capability of in-theatre MTFs. Evacuation limitations have a direct impact on the requirements for holding patients.

0289. The theatre evacuation policy is a command decision indicating the maximum length of time (days) that a patient will be allowed in the theatre for treatment, recovery and return to duty. If the prognosis is that recovery will take longer than the evacuation policy, then the patient will be evacuated as soon as he/she is considered suitable for evacuation. Theatre evacuation policy is the key to balancing the treatment capability available at each Role/Echelon against the medical evacuation assets required to provide casualties with the best possible medical care.

0290. The theatre evacuation policy has:

- a. To balance the medical capability and limit the need for unnecessarily sophisticated in-theatre resources.

- b. To ensure that, whilst the less serious sick and injured are managed and returned to duty at the correct Role/Echelon, the seriously ill are evacuated to appropriate treatment as rapidly as possible.
 - c. To ensure that in-theatre MTFs remain capable of reacting rapidly to operational imperatives.
0291. The theatre evacuation policy must:
- a. Be established by the operational commander on the advice of the TS, in concert with the operational staffs.
 - b. Be mission dependent. It will also be influenced by assets available and constraints on movement, particular operational imperatives, weather and topography.
 - c. Be dynamic, i.e. able to respond to rapidly changing situations. For example, the outset of an operation requires a short evacuation policy dictated by the medical assets in theatre. As medical assets build-up, the evacuation policy increases as operations develop. Finally, as the force scales down, the evacuation policy shortens to a minimum.
 - d. In the absence of tactical imperatives, be influenced by other factors such as welfare considerations, public expectations, national policy and cost of strategic evacuation.

Evacuation Priorities

0292. Those casualties who require to be evacuated must be sorted into priorities, based on their needs for surgery and/or resuscitation. However, a large number of factors must be balanced for casualty evacuation to be successful. For optimum results, the decision to evacuate casualties should be based primarily on clinical decisions.

0293. AE priorities are described in STANAG 3204, "Aeromedical Evacuation" and STANAG 2087, "Medical Employment of Air Transport in the Forward Area".

Medical Regulating

0294. Medical regulating is the process of directing, controlling and coordinating the transfer of patients within and without a TOO. This means from point of wounding or onset of disease through successive MTFs, in order to facilitate the most effective use of medical treatment and evacuation resources and to ensure that the patient receives appropriate care in a timely manner.

0295. To achieve this requires dedicated regulating staff, with appropriate CIS, providing the requisite visibility of the status of medical facilities, evacuation assets and casualty flow.

0296. The management of patients in any TOO is a dynamic process, taking into consideration a large number of important planning and operational factors:

- a. The availability of evacuation assets at the tactical and strategic level.
- b. The existing patient mix and type of medical facilities, the specialist capabilities available, medical equipment status, and staffing levels.
- c. The current bed occupancy status at medical facilities and any surgical backlog.

- d. Location of Air Ports of Embarkation (APOEs) / Sea Ports of Embarkation (SPOEs).
- e. The condition of each patient.
- f. The current tactical situation and any risk in moving patients or using valuable evacuation assets.
- g. Communication status in the regulating chain.
- h. The theatre evacuation policy.

Patient Tracking

0297. Patient tracking is the precise and continuous monitoring of the location and the intended destination of the patient in the medical treatment and evacuation chain. Keeping track of all personnel once they have been introduced into any medical evacuation chain (both national and multinational) is of crucial importance in terms of the individual's medical status, readiness implications to the unit of origin, and media and family sensitivities regarding all casualties.

0298. A patient tracking system must be rapid, accurate and dynamic, using standardised procedures and involving the personnel staff at the various HQs. Failure to establish a competent system for patient tracking, to include across national boundaries, will produce national political disquiet, unnecessary administrative efforts and distress for both patient and relatives.

0299. Continuous monitoring and notification of patient location status is of both a great challenge and is of significant importance in a multinational environment, involving transfer of information between and among nations. Practical issues of language differences, communication system compatibility, and record keeping practices combine to complicate multinational patient tracking functions. These challenges make interoperability evaluation and training tasks of paramount importance.

SECTION 2 – GROUND AND MARITIME EVACUATION

0300. Ground evacuation assets comprise ambulances, buses and trains. Ground evacuation assets are used to convey casualties from point of wounding to a MTF, or between MTFs within the TOO, and finally from MTFs to the point of embarkation, be it rail, sea or air.

0301. Ambulances are the most common type of ground evacuation transportation assets. Within ambulances there is considerable variation in terms of capabilities and patient capacity. At the top of the scale are advanced support units, staffed with trained personnel who can provide resuscitative care, administer basic drugs, and begin administration of intravenous fluids in addition to providing basic first aid. Others, usually a greater number, are equipped for basic life support only. In forward areas armour protected ambulances are used to afford some degree of protection for casualties and medical personnel.

0302. Ambulance buses are also used for sitting and lying casualties, but due to their very nature, buses do not have a cross country capability and are usually only used on roads between MTFs and from MTFs to the point of embarkation. In a MASCAL situation ambulance buses may be used to convey large numbers of slightly or moderately injured casualties.

0303. Purpose built ambulance trains and other rail assets can be used for the movement of casualties. One of the advantages of rail transportation is its large patient carrying capacity.

0304. Maritime Evacuation assets can range from small boats with no capabilities, used to evacuate casualties from shore to an afloat medical facility, to full scale Echelon 3 hospital ships which both treat and ferry casualties to more advanced shore facilities or evacuations points.

0305. The provision of ground and maritime evacuation assets can be via national contributions or under one of the forms of multinational medical support (Bi-lateral Agreements, LN, RSN, HNS/Contracting). Pooling assets will allow small national contributions to build a larger multinational organisation that may be difficult to achieve from one single nation. Centralisation of these assets, under the Force Commander, allows economies of scale, effective operational management and timely and unhindered intervention all over the TOO. In this case the PECC, in the MEDCC, is expected to provide the regulating functions for all patients through its own dedicated communication links. Details on the overall concept for medical evacuation in the specific theatre, national or multinational lines of control and accountability, coordination of medical evacuation assets must be given in the OPLAN (see Annex B to Chapter 5, Paragraph 4e).

SECTION 3 – AEROMEDICAL EVACUATION

General

0306. AE is the movement of patients under medical supervision to and between MTFs by air transportation. It may include up to three phases that are complementary:

- a. Forward AE. That phase of evacuation which provides airlift for patients from the battlefield to the initial point of treatment and to subsequent points of treatment within the combat zone. Forward evacuation is normally a national responsibility and is therefore not generally discussed below.
- b. Tactical AE. That phase of evacuation which provides airlift for patients from the combat zone to points in the Communications Zone (COMMZ), and between points within the COMMZ.
- c. Strategic AE. That phase of evacuation which provides airlift for patients from overseas areas or from theatre of active operations, to the home nation, to other NATO countries or to a temporary out of theatre safe area.

Governing Factors

0307. When planning tactical and strategic AE, the following factors must be taken into consideration:

- a. Force Structures: Generic combined force structures are described in AD 85-8.
- b. Missions: The AE concept is to be subordinated to the operational mission and any limitations imposed by it. The concept must allow for contingency planning. Selected options should always be driven by the specific operational scenario and based on the force commander's operational guidance.
- c. Authority/ Responsibility of NATO Commanders.
- d. National Doctrines: National medical evacuation doctrines and capabilities differ substantially. However, the development of multinational operational integration increases the need for flexibility in national medical support structures. Differences in national doctrine and capability do not preclude close cooperation. Properly coordinated procedures can assure the smooth transfer of patients within a multinational medical support structure.
- e. Medical Workload.

f. AE Assets: Civil and military aircraft each have merits and limitations and a flexible mix of both is recommended for this concept. For reasons of medico-technical continuity, the use of dedicated civil aircraft might be the preferred option in some contingencies and roles, whereas the use of military aircraft might be the better or only option in other circumstances. The concept will allow for the flexible use of both military and civil aircraft. These aircraft may be used in a dedicated or in a multi-purpose role. There is an existing potential within nations, as well as appropriate NATO channels, to make civil AE assets available if needed. Within the Senior Civil Emergency Planning Committee (SCEPC) structure in NATO, the Civil Aviation Planning Committee (CAPC) is charged to assist the nations in maximising the availability of civil aviation resources during crisis and conflict, and to optimise the Alliance's use of civil aviation resources. This committee will pursue civil-military planning necessary to provide a NATO civil air evacuation transports capability, if such capability is needed. The Joint Medical Committee (JMC) has the responsibility to pursue joint civil-military planning to support military medical requirements in a crisis. During a crisis, a Civil Emergency Crisis Cell (CECC) will be established at NATO HQ, which will interface with the nations for the provision of civil assets. The Allied Movement Coordination Centre (AMCC) is the major NATO command agency for coordinating, prioritising and deconflicting movement and transportation activities.

g. Liaison and Communication: There is a requirement for each nation to establish National Medical Liaison Teams (NMLTs). These teams will be normally located at their respective national support element and will deploy, as required, to medical facilities in order to assist in the administration, tracking and evacuation of their nations' patients. To carry out their function properly the NMLTs must have communication with the PECC in the MEDCC.

h. Location: Geographic and climatic factors have a crucial impact on movements. MTFs and evacuation assets should be carefully located in order to facilitate patient transfers through the support structure. Generally, medical treatment and holding facilities may collocate with road evacuation assets and be deployed preferably in the vicinity of airfields used for transportation purposes. Planners will however be aware that, depending on the operational environment, such deployment may effectively eliminate the protection guaranteed to medical facilities by the Geneva Conventions. On the other hand, if medical facilities are not placed close to airfields, there will be a need to deploy additional holding facilities at airfields as well as ground evacuation requirements for transit to aircraft. Helicopter landing pads are needed in the direct vicinity of all medical facilities. Ground transport evacuation means should always be planned to cover all situations where AE is not possible due to operational or geographic/climatic factors. Delays in the evacuation chain may force medical facilities to hold patients for longer periods than normally planned. Movement limitations potentially lead to congestion. Poor medical evacuation will have direct effects on patients' condition and hospital bed availability in theatre. Enhanced use of a multinational tactical AE channel may reverse this situation.

i. Other Factors: As related to contingency planning, which could include NBC factors.

Multinational Aeromedical Evacuation System Concept

0308. The concept for multinational AE is an integral part of medical support planning for combined joint NATO operations. It will optimise available assets and provide for economy of effort in utilising all multinational options for medical support/supplies/services as agreed between nations. A conceptual deployment options diagram is at Annex 3-A. Assumptions with regard to this concept are listed:

a. Nations will take responsibilities as LN, RSN or any other role within the multinational medical support options.

b. The overall coordination of tactical and strategic air movement is the responsibility of the relevant NATO theatre movement agencies and air commands AMCC, Joint Transportation Coordination Centre (JTCC), National Movement Coordination Centre (NMCC), Regional Airlift Control Centre (RALCC)). Air commands will normally establish an Aeromedical Evacuation Control Centre (AECC) within their staffs.

c. Activities will be coordinated in conjunction with nations through specialised NATO agencies like the SCEPC and CECC, when required.

d. The overall control of all movements within a TOO is a responsibility of the theatre command. To execute this function, it will establish specialised coordination structures as needed IAW AJP-4 and MC 336/1.

Description

0309. The multinational AE concept describes at least one guaranteed combined joint and centrally coordinated channel from one or two staging facilities for multinational use within the theatre. These staging facilities, are the Casualty Staging Unit (CSU) which feeds into a hub-facility called the In Transit Evacuation Facility (IEF), established in a location where theatre operational contingencies have no predominant influence. At that facility, nations would, under normal peacetime conditions, evacuate their patients to the national territory hospitals, either by national means or in cooperation with other nations.

0310. In order to make this multinational channel work, four basic components are needed:

a. Coordination, liaison and communication elements embedded within the theatre coordination structures.

b. CSU: a theatre medical facility caring for in-transit patients located on or in the vicinity of an air base or strip, with the capabilities as defined in paragraph 0318.

c. AE assets: these comprise, as a package, aircraft, aircrew, medical crew and AE equipment.

d. IEF: a medical facility located rearwards or outside the TOO, caring for in-transit patients, located on or in the vicinity of an air base or strip, with the capabilities as defined in paragraph 0323.

0311. As there is no agreed capability standard for medical facilities in NATO, the concept will define the functional role of each of its components. This description does not mandate any particular organisational structure, but identifies those functional elements, which are necessary for successful multinational medical evacuation.

0312. Depending upon the task organisation, mission, and medical support structure, different organisational structures could serve in these various roles, and conceivably, a single staff element or organisation could accomplish more than one role.

0313. Nations can, based on this functional description, task existing medical units or form ad hoc medical groups to perform the required function, based on contingency planning factors such as available infrastructure, HNS, local resources, etc. The functional description of each of the components is provided below.

Patient Evacuation Coordination Centre (PECC)

0314. The PECC, as part of the MEDCC has already been described in paragraph 0263. It must have functional communication means with the CSU and IEF. It will perform the following detailed functions:

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- a. Receive patient movement requests and input into automated support system.
- b. Coordinate receipt or bed assignment of the patient with receiving CSU and IEF or nation.
- c. Coordinate the flow of contingency/MASCAL patients in a crisis.
- d. Provide in transit visibility of patients in coordination with the Originating Medical Facility (OMF), CSU, IEF and the NMLT.
- e. Coordinate with the responsible clinician the following:
 - (1) Fitness of the patient for movement.
 - (2) Requirements for medical attendants, if any.
 - (3) An accepting physician for urgent and priority patients.
 - (4) Management issues necessary to support the patient in flight.
 - (5) Identify clinical management issues and special needs of the patient in coordination with the Aeromedical Evacuation Coordinating Officer (AECO), NMLT, ground support and eventual special equipment managers.
 - (6) Provide pertinent patient information to supporting crews.
 - (7) Develop load plan for patient movement, if needed.
- f. Coordinate air and ground ambulance requirements as well as aircraft requirements directly with the appropriate movement coordination centre.
- g. Coordinate AE pick-up and delivery with nations or organisations providing the aircraft support.
- h. Coordinate AE pick-up with the CSU and delivery with the IEF through the AECO function.
- i. Verification of aircraft itinerary.
- j. Compile a patient manifest for each mission.
- k. Pass manifest to nation or organisations supporting the mission.
- l. Keep facilities aware of inbound time changes and emplaning and deplaning loads.
- m. Track and monitor missions for destination arrivals and departures.
- n. Keep ground support aware of inbound missions and their estimated time of arrival.
- o. Provide clinical consultation to operations staff. When necessary, coordinate requirement for special medical equipment supporting AE missions. Provide clinical quality oversight on AE mission support.
- p. Report to the MEDCC/TS as per SOP.

Aeromedical Evacuation Coordinating Officer

0315. An AECO is a medically qualified person who is collocated with each OMF, CSU and IEF. The AECO will normally be provided by the nations providing the OMF, CSU and IEF functions. The AECO responsibilities listed below include those responsibilities which in some nations are carried out by an Aeromedical Evacuation Liaison Team (AELT). The AECO will:

- a. Have overall coordination responsibility for all AE matters, and will provide a unique interface between the PECC and the medical facility at his location.
- b. Provide a communication link with the PECC and the medical facility at his location.
- c. Verify and coordinate physiological and patient movement requirements.
- d. Closely coordinate with personnel preparing patients for transfer to the CSU or to airframes.
- e. Timely reporting of patients to the PECC.
- f. Keep the PECC aware of mission progress and coordination of patient movement issues.

National Medical Liaison Team (NMLT)

0316. The NMLT function provides the national medical authority interface for each patient to the PECC. They will advise the PECC in best coordinating all aspects of their national personnel evacuation through the AE system and consequent national repatriation.

Originating Medical Facility (OMF)

0317. The OMF is a medical facility in support of a theatre force component (e.g. land component Role 3 MTF, air component MTF, hospital ship, HNS hospital, ALSS) which initially transfers patients. It will:

- a. Provide initial medical evaluation of the patient's condition in consultation with a physician trained in aviation medicine.
- b. Identify and report to AECO special escort/equipment requirements related to specific patients.
- c. Report to AECO all the information required to coordinate AE.
- d. Liaise as appropriate with NMLT.
- e. Prepare in coordination with AECO patients' prioritisation, classification, administration, medication, and escort for evacuation transfer to CSU (IAW STANAGs 3204 and 3345).
- f. On order, evacuate or transfer to evacuation unit, escort and transfer stabilised/stable patients to CSU.
- g. Report all transfers as per SOP.
- h. Temporarily hold patients waiting for transfer and act as a CSU.

Casualty Staging Unit (CSU)

0318. The CSU function provides:

- a. At least Role 2 capabilities.
- b. Reception and administration of in transit patients arriving from an OMF.
- c. Review of patient priority, classification and dependency.
- d. Appropriate medical control, maintenance of stabilisation, nursing and feeding of patients.
- e. Patient tracking and reporting in coordination with AECO.
- f. A storage/transfer/exchange point for medical supplies and equipment.
- g. A temporary holding facility for up to 50 patients, with the capability to transfer up to 200 patients over 24 hours.
- h. A means to transport patients to airframes.

Aeromedical Evacuation asset

0319. An AE asset is a military or civil, rotary or fixed wing aircraft, provided by a nation for aeromedical use. It is provided as a complete package with a stretcher support structure for NATO stretchers, and must be medically equipped and crewed in line with the minimum requirements of STANAG 3204 and national standards. The medico-technical responsibility for the acceptance of the AE asset lies with the AECO in the CSU/IEF in coordination with the PECC. The requirements for specialised equipment and AE escort staffs will be defined by the PECC at early stages of planning.

0320. Military and civilian fixed wing aircraft have unique advantages and limitations. These characteristics complement each other. The use of military fixed wing aircraft is more likely in the early stages of a crisis and in all situations where the influence of the operational environment is paramount. Civilian assets may have more advantages in a dedicated AE role for long range evacuation between two medical facilities in a permissive environment. In this respect, they constitute a precious back up potential for any strategic operational scenario.

0321. Nations providing AE assets, particularly when they act as RSN and provide assets in dedicated AE role, will have to put in place the ground support to maintain their capability. Some nations call this ground support an Aeromedical Evacuation Operations Team (AEOT). It is recommended that it be collocated with the IEF, as its function is to provide operational and mission management support. It can also be responsible for such items as AE equipment (e.g. ramps), special medical equipment exchange or recovery, supplies, coordinating food (special diets) and services, disinfection and other services support.

0322. The exchange/recovery of medical technical equipment attached to patients leaving the theatre will be organised and coordinated by AECO/PECC at the level of the CSU or IEF.

In-transit Evacuation Facility (IEF)

0323. The IEF must be capable of the following functions:

- a. Provide Role/Echelon 3 capability.

- b. Act as a multinational focus for national strategic AE
- c. Accomplish all the CSU functions.
- d. Have an expandable holding capacity (this capability is necessary to take into account possible long waiting times for evacuation).

Aeromedical Evacuation Control Centre

0324. As defined by STANAG 3204, the AECC is 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 AE elements in the system and monitors patient movement activities.

0325. The proposed role of the PECC at theatre level does not conflict with the need for a central focus for AE activities at the level of the air component staffs such as the Regional Airlift Control Centre (RALCC). The availability of an AE control centre at this level will enhance coordination and interoperability within the AE system. The AECC should focus its coordination activities primarily on all those aspects directly related to the use of the AE assets involved. In doing so, it will directly interface with the PECC at theatre level.

Conceptual Description of the Multinational Aeromedical Evacuation Process

0326. A patient in the OMF is assessed fit for evacuation by air, in consultation with a physician appropriately trained in aviation medicine. Details of the patient are notified to the AECO attached to the OMF, who, in turn notifies the PECC. In accordance with the theatre evacuation policy, the PECC consults the NMLT for a decision to evacuate the patient through the multinational system. The PECC coordinates all requests with the appropriate movement coordination centre. This agency, in turn, coordinates air movement with the RALCC and accordingly air/ground ambulance movement, as required. The RALCC will normally use its AECC to ensure close liaison with medical and operations staffs.

0327. The OMF, as instructed by the PECC through its local AECO, evacuates the patient to the CSU. This can be done by appropriate national means, or by evacuation assets provided within the force component or theatre support structure.

0328. The CSU receives, processes and feeds patients and provides an appropriate level of medical care until transfer of the patient to the evacuation aircraft is ordered by the PECC.

0329. The CSU transfers the patient to the aircraft and the patient is then flown to the IEF, if one is established. The AECO monitors and reports activities to the PECC.

0330. The IEF assists in unloading the airframe, receives, administrates, nurses and holds the patient until transfer to an aircraft for a national destination as coordinated by AECO/PECC.

0331. Each nation collects, or arranges for repatriation of, its patients via an evacuation route to the national facility or a regional IEF.

0332. All facilities continuously monitor patients' conditions and fitness for air transport.

0333. Both the CSU and the IEF have a responsibility in pooling/exchange/transfer of medical supplies and equipment accompanying the patients en route, to the greatest extent possible permitted by interoperability.

0334. Documentation of patients in transit will comply with STANAGs 3204 and 3345.

Coordination, Liaison and Communication Structure

0335. A combined joint evacuation channel as described cannot function properly without a unique PECC, with functional communication links to the key nodes of the system. It needs to be embedded/collocated within the theatre coordination structure (J4/MJLC/MEDCC) and must establish liaison with the NMLTs. It will follow the technical directions of the TS. The PECC's function is an integral part of the concept, regardless of the option taken for the contingency theatre or force command structure or the operational scenario. It should be equipped with a communications capability that will guarantee a minimal and reliable communications ability, in a crisis or catastrophe, where the normal communications structure of a theatre headquarters would not be available.

0336. Medical coordination, liaison and communication will be the responsibility of:

- a. The PECC function.
- b. The AECO function.
- c. The NMLT function.
- d. The OMF function.
- e. The CSU function.
- f. The IEF function.

0337. Fig. 3-1 situates these elements within a generic theatre coordination structure. Various described functions can be collocated or combined in a flexible way depending on contingency factors.

0338. CIS requirements to support the coordination structure are as follows:

- a. All the coordination elements of the structure will have to be routinely embedded within the planned theatre communications and information network structure, once established.
- b. In order to make the structure operable in the early stages of a crisis or catastrophe, the PECC needs to have a communications capability, such as SATCOM, which will guarantee reliable initial communications with NATO HQs. The PECC deploys with appropriate data information management systems.
- c. All AECO deploy with functional communications capability.
- d. A unique, dedicated frequency for the AE system is strongly recommended in order to establish a dedicated link between the PECC, CSUs, IEFs and, if necessary, other AE elements.

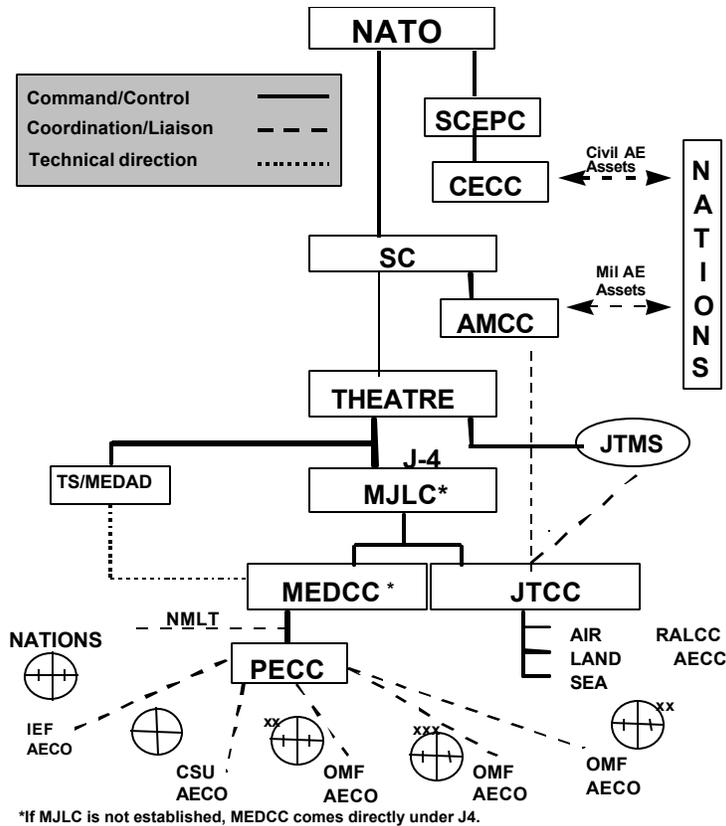


Fig. 3-1 – AE elements within a generic theatre structure

0339. Reporting responsibilities are described as follows:
- All OMFs routinely send reports within their normal force component reporting system as per SOPs.
 - All AECOs send reports to the PECC on individual patient movement within, to, and from the facility they supervise.
 - The PECC sends reports to the TS through the MEDCC as directed.
 - The TS sends reports to J1 for in transit visibility, to J4 for operational aspects and directly to the commander, if needed.
0340. The following procedures ensure in transit visibility for all casualties:
- J1 has the overall responsibility for personnel tracking, including patient tracking. The PECC provides in transit visibility for patients during their transit within the multinational air evacuation channel.
 - When personnel transit within the multinational medical channel, their visibility becomes a responsibility of the PECC as of departure from the OMF until boarding the national AE asset for repatriation.
 - The PECC will report all transits to the TS' office, which in turn will send reports to J1.

Capabilities Required to Support the Concept

0341. The actions that are required, for the implementation of an AE system, during the different phases of an operation are shown below:

- a. Peacetime status:
 - (1) Identify/earmark national infrastructure MTFs located close to an airfield as crisis IEFs.
 - (2) Identify/earmark nations willing to provide military aircraft, equipped and staffed for AE, general care and special care evacuation.
 - (3) Identify/earmark/establish initial functional communications for use in crisis (e.g. SATCOM).
- b. During developing crisis:
 - (1) NATO Precautionary System (NPS) measures already reflects the need for preparation and establishment of AE.
 - (2) This will include the need to identify civil aircraft.
 - (3) NPS measures may not constrain non-NATO force contributors and may need to be reinforced by contingency agreements.
- c. During Immediate Reaction Forces (IRF) deployment:
 - (1) Same actions as during developing crisis, plus deployment of the initial AE assets.
 - (2) Deployment of the advanced element of the CSU and AECO.
 - (3) Alert status for identified/earmarked deployable IEF provided by RSN.
- d. During Rapid Reaction Forces (RRF) initial deployment:
 - (1) Previous measures plus deployment of a PECC as part of J4 theater coordination structure.
 - (2) Deployment of the IEF.
 - (3) Deployment/stand-by of additional military AE assets as related to contingency planning.
 - (4) Activation of civil AE assets.
 - (5) Activation of escort teams and equipment for civil AE.
 - (6) Deployment of one CSU provided by a RSN.
 - (7) Activation of the second CSU provided by a RSN.

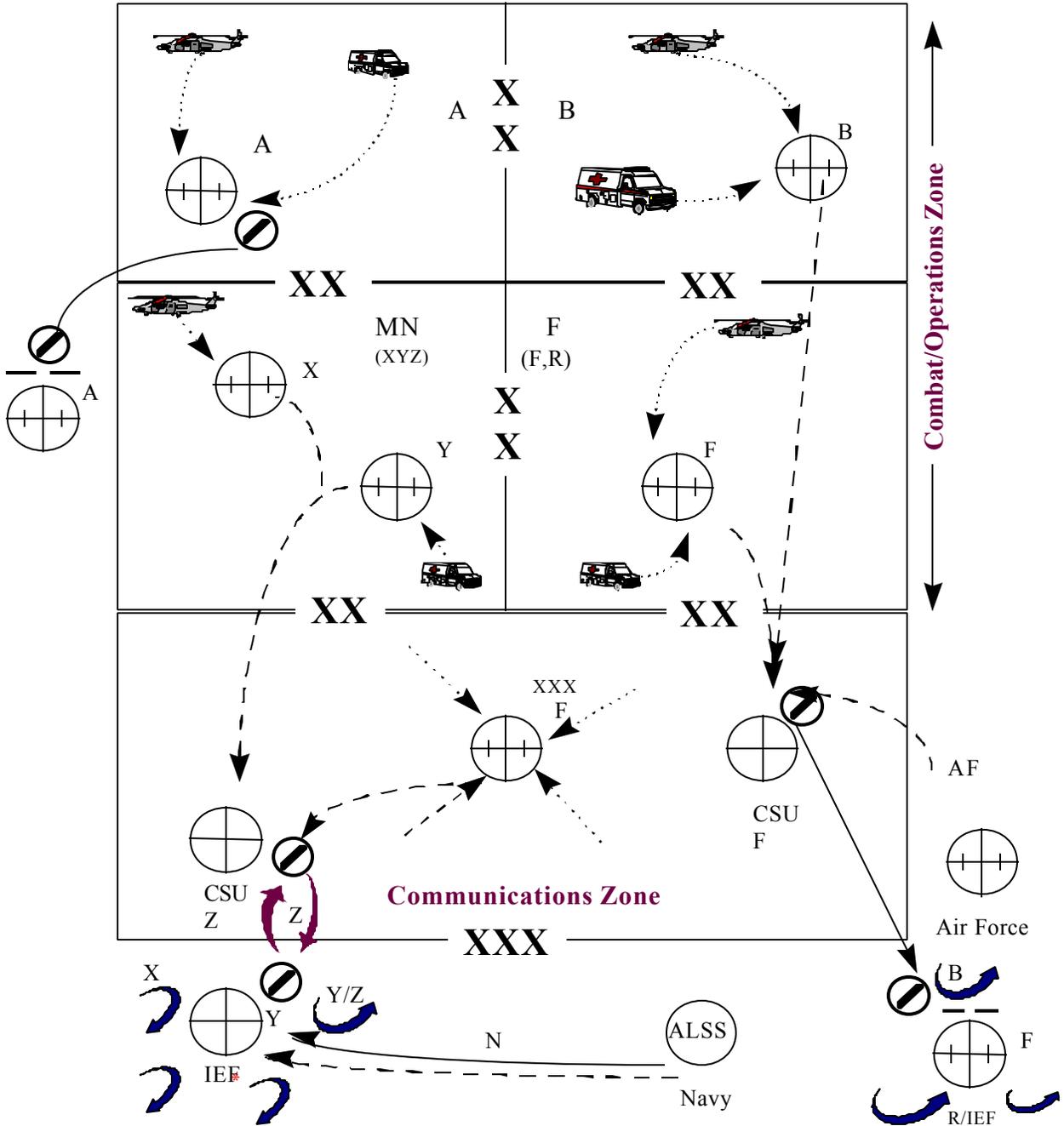
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- (8) Alert status for regional IEFs as appropriate.
- e. During full RRF deployment:
 - (1) Deployment of the full medical coordination structure as part of the TOO.
 - (2) Deployment of a second CSU provided by a RSN.
 - (3) Deployment/stand-by of civil AE as related to contingency planning.
 - (4) Activation of regional IEF as appropriate.
- f. During Main Defence Forces (MDF) deployment:
 - (1) Activation and deployment of all national AE assets as appropriate in support of MDF operations.

CONCEPTUAL DEPLOYMENT OPTIONS DIAGRAM

1. The intention of the conceptual deployment options diagram is to show generic examples of ways in which AE might be conducted in a combined and/or joint TOO. These examples are illustrative only, and are not prescriptive.
2. As stated, the concept allows for combinations and collocations of functions to best support contingency plans.
3. The example shows a generic combined army corps, composed of two national divisions (A and B), a combined multinational division (MN) and a framework division (F).
4. The dotted line indicates forward AE, the interrupted line represents tactical AE and the plain line indicates strategic AE.
5. The nation contributing division A has the evacuation means and the air and ground facilities to evacuate directly from its Role 3 to its Role 4 MTF. It reports its activities to the PECC.
6. The nation contributing division B has the means to support its own troops with forward AE, but has chosen to cooperate with the nation providing the framework division (F) for further evacuation. B evacuates to the CSU established by F.
7. Nations X, Y, Z each provide a brigade to form the division MN. Multilateral agreements lead to the following arrangements:
 - a. X and Y establish a Role 3 MTF for MN patients. Z provides the CSU.
 - b. Y provides the IEF.
 - c. Z provides dedicated AE assets between CSU and IEF.
8. Nation F provides a framework division in which nation R contributes a brigade. R evacuates all patients from Role 3 MTF to CSU, both established by F. B, F and R patients are evacuated to a regional IEF, provided by R.
9. Multilateral arrangements have been made for any nation's patients coming out of the Air Force Component MTF in theatre, or any nation's patients coming out of the Navy ALSS MTF or Role 3 MTF in the COMMZ to be evacuated to the CSUs or the IEF, in coordination with the PECC and NMLTs.

CONCEPTUAL DEPLOYMENT OPTIONS DIAGRAM



CHAPTER 4

INTERFACE BETWEEN MEDICAL AND OTHER STAFF FUNCTIONS

Introduction

0342. The purpose of this Chapter is to identify and provide guidance on staff interfaces among medical and other commanders' staff elements in NATO-based operations and describe the principal medical subject matters that are most closely related to those staff elements. What medical provides the J staffs and what the J staffs provide medical will be expounded on.

0343. Medical staff must operate with a close interface with the personnel, intelligence, operations, logistics, CIMIC, Legal, Engineers and CIS staffs to execute a wide range of medical support planning, surveillance, coordination, and direct support functions. Coordination and collaboration spans both the vertical and horizontal levels of command. The list is neither exhaustive nor definitive, but demonstrates the areas and subjects where medical staffs need to work in unison with other commanders' staffs and have access to and interaction with them without intermediaries.

J1 – PERSONNEL AND ADMINISTRATION

0344. There is a considerable interface between the functions of medical support and personnel support. They emerge during the initial planning stages and continue long after an operation has finished. Consequently, the working relationship between medical and personnel staffs must be well developed and relevant personnel concerns should be detailed in medical plans. The areas of interaction between J1 and medical are listed below.

HQ Medical Staff Manning and Qualifications

0345. Medical staff must advise J1 on the number of posts to be allocated to medical staff in HQs and the medical qualifications required for each post. J1 staffs have the responsibility to work with the CNs to ensure all positions are continuously manned with personnel capable of meeting the specific requirements of their post. Specific qualifications will conform to national and NATO requirements in terms of performance requirements, speciality skills, experience and grade levels.

Manpower Fitness and Health Standards

0346. J1 Staffs will ensure that personnel assigned to NATO operations achieve, before deployment, the standards of individual fitness and health predetermined by national policy. Medical staff will advise J1 staff on the immunisation policy and other individual preventive measures.

Patient Tracking

0347. J1 has the overall responsibility for personnel tracking, including patient tracking. Hence patient tracking is predominantly a J1 function with an essential medical input, and is developed in conjunction with national J1 staffs.

0348. Close coordination and a permanent guaranteed exchange of information and data between the personnel and medical functional areas will be required to avoid any shortfall or missing link in this high profile and high priority area.

0349. Patient tracking encompasses the reporting for POW and civilian patients and the reporting of deaths. The procedures for allied patients found in STANAG 2132 should be used for all patients unless more definitive guidance is produced for other categories, such as POWs and civilians.

Casualty Reporting

0350. J1 personnel staff are responsible for maintaining a theatre-wide casualty reporting data base, in conjunction with the medical staff. In addition to their own reporting systems, national contingents are to report casualties and admissions to MTFs in accordance with established SOPs for the specific TOO.

0351. Casualty reporting is to include any personnel captured, missing, wounded, hospitalised, injured or killed. J1 and the TS are key recipients of this data base, which includes mortality data, as part of the overall medical surveillance data base for the operation.

Handling of Deceased

0352. The multiplicity of nations involved in multinational operations, and the medical support structure for NATO operations will require that both national and multinational HQs become involved in the handling of the remains of deceased, belonging to other nations as well as their own. The primary goal is to establish clear procedures for the proper, timely and dignified handling of deceased NATO forces personnel in order to sustain morale, and to minimise the distress of next of kin.

0353. The procedure to be followed by all CNs in a NATO operation for the handling of deceased personnel, their remains, personal belongings and their military weapons and equipment, is established by the J1 staff. J4 staff are responsible for setting the policy with regard to the transportation and handling procedures (type of coffin, packaging, embalming etc.) to be observed when repatriating deceased personnel. The ultimate responsibility is with the CNs for the proper notification and repatriation of deceased personnel.

0354. The medical staff normally becomes involved in this process, with a primary role of handling of remains in theatre at medical facilities, and supporting the rapid repatriation under parent nation arrangements. The preparation of deceased personnel, for repatriation to their homeland, is, whenever possible, to be carried out to the satisfaction of the concerned medical officer.

Patient and Personnel Welfare

0355. The provision of physical and spiritual welfare amenities and personnel for deployed troops is the responsibility of the J1 Staffs in conjunction with CNs. Medical staff have an interest in the establishment of a robust spiritual and welfare policy and the provision of welfare amenities, as these are a vital component for ensuring that the troops morale is of the highest order.

J2 – INTELLIGENCE

0356. Intelligence is defined by NATO as 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 term is also applied to the activity that results in the intelligence product and to the organisations engaged in such activity. J2 is responsible for all intelligence activities and the dissemination of required intelligence products to the medical staff.

0357. In considering the interaction between the J2 staff and medical staff, it should be noted that the latter is primarily a “customer” of the intelligence staff. NATO intelligence staffs acquire appropriate intelligence products, including medical intelligence, through formal intelligence gateways at various levels of NATO commands and release them to medical staffs involved in NATO planning and NATO led operations.

0358. Although medical planning staffs may need all forms of intelligence at various times, primary products that will be required will be medical intelligence. The medical staff must develop and coordinate appropriate requirements with the supporting intelligence staff for certain types of intelligence products.

0359. Openly available, medically related information gathered by the medical staffs in the normal conduct of their duties may be of relevance to the overall intelligence system and process. Medical staffs who gather information in the normal conduct of medical support planning and operations are not collecting intelligence and should never use the term “intelligence collection” in association with medical support activities. Medical staffs do not engage in intelligence collection activities but gather medical information, which may be of use to the intelligence staff. At times the intelligence staff to provide advice and analysis on selected subjects may call on medical personnel.

J3 – OPERATIONS

0360. The operations staff acts as a focal point through which the commander directs and maintains continuous oversight of all operations. The operational commander establishes a JOC, which becomes the hub and central clearinghouse for the whole operation.

0361. Force protection oversight is a lead function of the J3 staff, and they coordinate with other relevant staff, including medical, in their conduct of the force protection programme objectives and initiatives.

0362. The J3 operations staff and medical staff often bring complementary but differing programme approaches and competencies to achieve health protection, treatment and promotion objectives. Provision of medical services to support the health of the troops is strictly a medical staff responsibility, while the operational commanders enable force protection through establishing and maintaining an adequate medical support system, and implementing/enforcing recommended preventive medicine policies.

0363. In short, the medical staff mission is directly focused on the health of the troops, while the operations force protection staff mission is focused on the readiness status of the medical support structure (i.e. focus on the “health” of the medical support organisation). Both staffs must work co-operatively as a team in the development and execution of force protection programmes.

0364. At any time during operational planning and execution the J3 Staffs are responsible for determining any change in the point of main effort, which may be accompanied by changes in the medical arrangements. They will determine the response to any situation, which compromises medical support to the force, and they will also make decisions over allocation of scarce resources. Medical staffs are responsible for ascertaining the medical implications of COAs selected by J3 staff and ensuring that they are made fully aware of these implications.

0365. One of the most important interactions between J3 and the medical staffs is the determination of casualty estimates for a given operation. AD 85-8 gives guidance for the calculation of casualty estimates for NATO ground/air operations and the BI-MNC Maritime Medical Planning Guidance for NATO for maritime operations. The BC rates provided in both these documents are generic in nature and can only be used for generic planning at the higher end of the spectrum of conventional warfare. For instance, in land operations, a single rate for level of command (Battalion, Brigade, Division, Army, and Corps) is selected, focusing on a single day of intense combat between capable forces in a continuous front scenario. If the flat rates given in AD 85-8 are applied to the overall size of the force for the projected time of an operation the resulting BC estimate may be of little value. A large number of factors must be taken into account for the estimation of BC in contingency and operational planning. Therefore, the selection of BC planning rates should involve consultation between operations, medical, intelligence and policy staffs, even though the determination of this estimate is primarily the responsibility of the operational staff. Appropriate casualty prediction rates for other than Article 5 operations are still being developed, but in general the DNBI rate

found in AD 85-8 (1.3%/day) appears to be valid. Battle casualty rates for PSOs will obviously not conform to those found in AD 85-8.

0366. MASCAL planning is not just the preserve of the medical staff. Any MASCAL would have the total focus of the commander, especially in a non-warfighting situation. Therefore, medical staff must coordinate MASCAL planning with J3, who will lead on all aspects of the plan and its execution, as the resources required will come from across the theatre and many will be non-medical.

J4 – LOGISTICS

0367. The J4 staff is responsible for assessing the logistic support required for achievement of the commander's campaign objectives, and for ensuring that these support requirements are met throughout the campaign. In addition to this assessment, J4 will also coordinate the overall logistic effort.

0368. As medical is part of the functional area of logistics, coordination between medical and logistics staffs is required to ensure consistency and integration of logistics and medical missions. Amongst others, activities that require the closest linkage between medical and logistics staffs are:

- a. The development of the support concept and plan for the operation.
- b. The creation of the statement of requirement (SOR) and the sustainability statement.
- c. The conduct of recce and other enabling operations.
- d. The resourcing process.
- e. The definition of logistics and medical C2 architecture.
- f. The MTFs deployment, employment and redeployment.
- g. The planning and execution of the logistic aspects of AE.

0369. Timely exchange of information, flexibility in decision making, team work spirit and mutual trust are essential in these relationships. The areas of interaction between J4 and medical are listed below.

Medical Support Planning

0370. From the very onset of planning for an operation, medical staff must work proactively with J4 staff to define the medical support concept, medical organisation and requirements fit for specific plan(s). Medical staffs will continue to directly participate in all OPLAN development processes and in all redirection planning, such as required for major phases of an operation and for crisis action response.

Medical Facilities Sustainment

0371. The J4 staffs play an important part in ensuring that medical facilities are able to carry out their primary tasks. It is their responsibility to provide many of the critical needs of a medical facility, which may include:

- a. Power, laundry, rations, water, maintenance of vehicles and accommodation.

- b. The provision of vehicles for the movement of MTFs, if required.
- c. The provision of HN support or local contracting for the supply of services to medical facilities.
- d. The employment of civil labour.

Engineering Support

0372. Within the area of logistics the need for engineering support, whose objectives and tasks are represented by the following, has taken on an increased importance in recent years:

- a. Maintain and develop the theatre highway routes, airports and seaports of debarkation, and railheads necessary to provide the appropriate level of force mobility and sustainability.
- b. Maintain and develop the quality of the HQs infrastructure to include offices, accommodation, food service facilities, water supply, warehouse and other facilities (including medical), needed to meet both minimum military requirements and the force protection requirements.
- c. Provide guidance and support to all CNs regarding environmental policy for protecting the natural environment, both within occupied sites and throughout the TOO.

0373. Medical staff functions require close coordination with engineer staff as both a customer of engineer support services and as a collaborative team member regarding advice and support to NATO commanders on health based design and operational criteria for deployment facilities, sites and operations.

0374. Medical evacuation and treatment functions are particularly dependent upon engineering support in the form of infrastructure needs. As a customer, medical staff must identify medical support infrastructure needs (office space, treatment facility, utility and other support etc). Engineer support requirements must be specific and in conformance with engineer staff guidance.

0375. All new facility construction plans, and plans for modification of existing facilities, should be coordinated by the engineering staff with the medical staff for their review from an environmental health protection perspective. Based on the facility design plans, medical staff will review and provide comment regarding compliance and any recommended changes as necessary, to promote health protection.

0376. The chief engineer is normally responsible for the development and coordination of environmental policy within a NATO TOO. A complex set of legal, financial, political and health protection considerations come into play in management of environmental protection. For a specific operation, the NATO commander and CNs are ultimately responsible and liable for environmental protection. This task, however, requires a truly integrated team approach, involving not only the engineers and medical staffs but also the legal advisor, J3, J9, and the NSEs of each CN to establish and execute compliance with a multinational policy and a set of standards.

0377. Medical staff must be prepared to be integrated into both the environmental protection policy decisions, regarding criteria and standards, and the daily technical challenge of identifying potential contaminants and quantifying potential health risks. Medical staff advise on the determination, selection of appropriate management, control and remediation of various categories of wastes, including hazardous of various categories (e.g. fuels and lubricants, ammunition and explosives, medical wastes, etc).

J5 – PLANS & POLICY

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0378. J5 staff have the primary function of coordinating and consolidating planning input from all key staff elements, including medical. They also promulgate the commander's decisions on the COAs for the campaign through planning directives, operation plans and contingency plans.

0379. The medical staff will provide medical input to the commander's OPLAN to the J5 staff.

J6 – COMMUNICATIONS

0380. The primary mission of the J6 communications staff is to provide reliable and secure CIS necessary to support an operation. The principles of flexibility, reliability, security, network resilience and interoperability are crucial to the NATO framework at all levels, as is the continued emphasis on commonality of CIS procedures.

0381. In the medical functional area, where there exists the potential for large amounts of detailed information and data on casualties to be transmitted, it is essential that early operational planning include the requirement to establish the commensurate priority for medical CIS.

0382. The most important aspect of this process is to engage the CIS staffs in recognising the need for CIS assets to provide adequate connectivity within the medical functional area, both vertically and horizontally in the C2 architecture.

0383. Medical support CIS needs must be assessed at all levels. In conjunction, medical and CIS staff will establish the medical CIS requirements for the operation and include them in the SOR. The CIS staff may also allocate the means to effect the capture of appropriate medical data.

0384. Medical CIS should include all MTFs in theatre, in order to facilitate the ability to rescue, evacuate, regulate and track casualties, permit commander's analysis and assessment of theatre medical capabilities, achieve direct interaction and information exchange on a continuous basis. Connectivity with the JOC and commander's staff elements must also be established and maintained for coordination purposes.

J8 – RESOURCES & FINANCE

0385. At the theatre level, J8 are the principal financial management advisers, and are responsible for the correct and efficient application of all international funds approved for use in the theatre in support of the operation.

0386. J8 linkages to medical support are indirect and thus transparent, relating to the planning, programming, budgeting, and execution oversight of the theatre-based operation. The financial staff are responsible for the correct and efficient utilisation of funds approved for in-theatre support of the mission. Direct theatre interaction between finance and medical staffs, however, may be necessary during the course of an operation. Specific examples where this may be required are as follows.

a. New Projects or Initiatives. Evaluate requests for support of national or multinational initiatives, which may be proposed during the course of an operation to meet newly identified needs (e.g. special immunisation requirement due to identified health risk to the multinational forces). Medical staff would be required to prepare and coordinate with J8 staff a justification for funding.

b. MOU. J8 staff may monitor the development and participate in negotiations of MOUs and other international agreements regarding medical support with financial implications. They will also coordinate NATO HQ level (Military Budget Committee) approval as required.

- c. Contracting Support. Support of in-theatre forces may require substantial procurement of medical goods and services located within the local markets. SC budget & finance division will provide direction and oversight over the contracting activities of the NATO operational commander and of subordinate organisations. J8 staff will therefore be an important linkage for medical staff in the form of providing procurement contracting technical guidance and support.

J9 – CIVIL-MILITARY CO-OPERATION (CIMIC)

0387. NATO commanders need to establish relationship with a variety of civilian authorities and organisations in their TOO. Allied commanders have a moral and legal responsibility toward the civilians in their area, which can only be met by cooperating with the civilian authorities and organisations. Therefore, the primary mission of J9 staff is the establishment of a specialist interface between an allied force and the civilian authorities and organisations, in order to establish and maintain good civil-military relations and gain the greatest advantage for the commander.

0388. Some of the conditions for military success can be achieved by harmonising the military commander's aims and methods with those of the civilian population, authorities and organisations in his area. This is especially true of PSOs, where civilian considerations impose severe constraints on tactical and operational freedom. Where harmonisation is undesirable or impossible, for example in a hostile theatre or fast moving high intensity conflict, CIMIC will still be a major consideration because of the need to obtain local resources, operate within the international legal framework and facilitate eventual transition to civilian government. J9 staff must use intelligence sources and collaborate with other key staffs in order to complete an assessment of need, establish priorities, and execute their mission.

0389. A CIMIC capability will help civilian institutions, in an area of conflict or peacekeeping operations, to achieve continuing civil implementation without the support from a NATO-led military force. The basic civil-military component of a NATO operation end state is achieved when the principal civil implementation organisations can complete their remaining or ongoing tasks without support from a NATO-led force.

0390. With the approval of the commander and in accordance with the tasks assigned in the OPLAN, J9 staff may request medical staff to provide non-emergency medical assistance to the local population. In assessing whether a military response should be provided medical staffs must establish that the task is one that, if undertaken, will facilitate a return to normality for the local community. This assistance must be for a limited duration, with the final outcome being the re-establishment of the local civil medical infrastructure.

0391. Another area of interaction between medical staffs and J9 staff is the advice that can be given on the coordination and implementation of different medical projects promoted by the J9 staff, or NGOs, in the area of health care to the civil community. This advice will take into consideration the duplication of effort and the priority requirements of the projects.

LEGAL

0392. The legal staff provides legal advice and services to commanders during all phases of an operation. For each operation, the medical staff, in conjunction with legal staff, will address issues concerning both national and international law.

0393. Many of the areas over which legal maintains technical supervision or key advisory input involve subjects which include either medical functions or topics for which the medical advice to the commander is required. Key among these linkages, which will bring the medical and legal staffs together in a direct working relationship, include:

- a. SOFAs and HNS arrangements.

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- b. MOUs, contracts for supplies and services, leases, or other arrangements with the HN or private enterprise, if no general MOU or contract will be negotiated by J4, may be negotiated by medical with direct support or, at a minimum, review through the legal staff.
 - c. Issues and actions pertaining to NATO support to International Organisations, NGOs, or the local population.
 - d. Claims activity within the AOO related to incidents involving damage to property, or injury or loss of life.
 - e. NATO liability regarding individual or public health, such as related to environmental contamination or other NATO operation based exposures.
 - f. International Committee of Red Cross (ICRC) inspections.
0394. Other areas of specific linkages between medical and legal staffs will include:
- a. Compliance with Humanitarian Conventions. The conduct of medical activities will comply with the rules laid down under The Hague and Geneva Conventions. Without discrimination, all entitled sick and injured shall be treated on the basis of their clinical needs and medical resources availability.
 - b. Treatment of POW and Other Protected Persons. All provisions of the Geneva Conventions pertaining to medical support to POWs, and other protected categories of personnel shall apply. The legal advisor will technically assist the medical and other staff in the interpretation of these provisions. He will collaborate on the development of Fragmentation Orders (FRAGOs) and other operational orders, guidelines and directives, which clarify medical support to all categories of protected personnel during specific operations.
 - c. Medical Confidentiality. Patient medical information is not to be communicated to any individual or organisation who does not have a medical need to know, except as required by national policy for that nation's patients. Confidentiality must also be ensured in dealing with medical reports, returns, and files containing information other than in anonymous form. Conversely, medical messages releasable to non-medical addressees must not contain any individual information without prior written consent by the individual. National laws will be accounted in the handling of medical records at the multinational level, with uncertainties or issues to be adjudicated through the legal staff.

PUBLIC INFORMATION OPERATIONS

0395. Public information and affairs staffs have the key mission of enhancing public understanding on the NATO operation's mission, goals, capabilities, and status. The public information office must be coordinated with all key NATO team elements, including medical staff, to ensure all target audiences are fully and accurately informed about the progress of the operation.
0396. Medical staff interaction with the public information media in a TOO will result from need to respond to incoming inquiries concerning medical issues and actions.
0397. As senior medical advisors to their commanders, medical staffs must be prepared to conduct media briefings or press type conferences, or provide scripted materials for senior staff, regarding medical updates and background on specific operations, actions, or issues. Information released or prepared for release must be consistent with operational security, troop safety and medical confidentiality.

0398. As a proactive tool, medical staff should look upon public information channels as an excellent leverage to achieve medical force protection and preventive health education objectives. This action may be taken to:

- a. Keep military and political authorities informed about significant medical aspects of the operation in a timely manner.
- b. Actively support media efforts to understand, promote and report on specific activities and goals.
- c. Conduct information programmes to create a better understanding of endemic and operation health risk factors and preventive medicine countermeasures to pre-empt health risks.

CHAPTER 5 - MEDICAL SUPPORT PLANNING

SECTION 1 - INTRODUCTION

General

0399. The purpose of medical planning is to support the commander in his accomplishment of the mission by identifying medical capability, capacity, mobility, sustainability and infrastructure necessary for operations at strategic, operational and tactical levels. The scope of this chapter is to define the method and the pattern of medical planning at strategic and operational level, as well as the planning required for medical exercises.

Hierarchy of References

0400. The basic documents relevant to medical planning have been detailed in the reference list. The hierarchy of documents is as follows:

- a. Policy Documents. These are Military Committee (MC) documents formulating principles, policies and guidance on Logistics (MC 319/1), Medical Support (MC 326/1), Defence Planning (MC 299), Peace Support Operations (MC 327) Host Nation Support (HNS) (MC 334), Movement and Transportation Support (MC 336/1) and CJTF (MC 389).
- b. Doctrinal Documents. These are the Allied Joint Publications (AJPs) and the Allied Logistic Publication (ALPs). The AJPs focus on planning, execution and support to Allied joint operations while the ALPs give guidance on logistics and cover the logistic sub-concepts of force components: ALP 9 for land, ALP 11 for maritime and ALP 12 for HNS.
- c. Procedural Documents. These are mainly: BI-SC Directives, which cover implementation matters resulting from the doctrine (e.g. BI-MNC Reporting Directives, Volume V – Logistics Reports) and Force Standards, that establish operational and logistic capability requirements for forces allocated to NATO, in amplification of MC 55/3.
- d. Planning Guidance Documents. Planning guidance is given through:
 - (1) BI-SC Guidance for Defence Planning, which addresses national and NATO defence planning staffs with the mission driven approach to defence planning.
 - (2) BI-SC Guidelines for Operational Planning (GOP), which provide guidance to NATO regional commanders and nations on operational planning methodology.
 - (3) BI-SC Functional Planning Guides (FPGs), which give details of how to translate broad policy and principles into operational plans in specific functional areas (e.g. logistics and medical).
 - (4) BI-SC Stockpile Planning Guidance, which contains details on the minimum medical material and pharmaceutical stockpiling levels and for surge production capability to support national forces assigned and earmarked to NATO.
 - (5) Regional Planning Guides (RPGs), which are planning instructions produced by the RCs for their AOR.
 - (6) Specific Planning Guides (SPGs) issued at CC/JSRC level.

e. Medical Planning Guidance Documents. These give specific guidance for medical support planning, for land/air forces (ACE Directive 85-8) and maritime forces (BI-MNC Position Paper - Maritime Medical Planning Guidance for NATO).

f. Standardisation Agreements (STANAGs) and Allied Medical Publications (AMedPs). These are documents by which nations endorse and implement specific requirements in the medical field, concerning either equipment (technical STANAGs and AMedPs) or procedures (procedural STANAGs and AMedPs).

Plans

0401. The most relevant kinds of plans are:

a. Contingency Operational Plans (COPs). COPs are developed for possible operations for which the planning factors (e.g. scope, forces, destination, risks, AOR, etc.) have been identified or can be assumed. COPs are the result of advance planning.

b. Operational Plans (OPLANs). These are plans for a single operation and may be developed from an existing COP or in response to the current situation. An OPLAN is usually based upon stated assumptions and is in the form of a directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. An OPLAN includes a Medical Appendix, which provides a description of the medical support that the commander requires in order to carry out his mission.

c. Support Plans (SUPLANs). They provide detailed amplification for particular functional planning areas and must be directly linked to a specified COP or OPLAN. Fig. 5-1 below illustrates the relationship between Advance Planning and Implementation Planning phases (see also paragraph 0419).

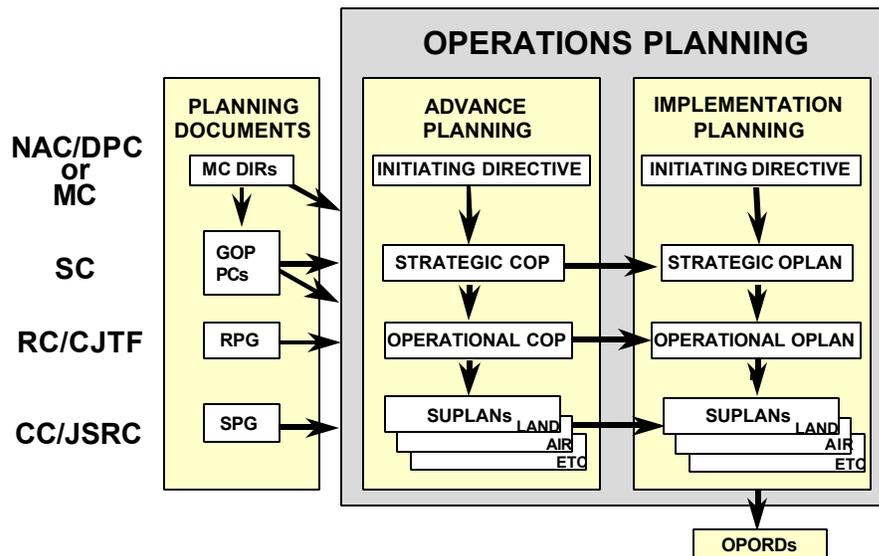


Fig.5-1 – Advance and Implementation Planning

SECTION 2 - MEDICAL ISSUES IN THE DEFENCE PLANNING PROCESS

Defence Planning

0402. The objective of NATO Defence Planning is to provide a framework within which national policies and planning can be harmonised, with the aim of meeting the military needs of the Alliance in the most effective manner. The Ministerial Guidance (MG) given by the NATO political authorities, the Military Implementation of the Alliance Strategic Concept (MC 400), the MC Guidance for Defence Planning (MC 299) provide a basis for the identification of Alliance's required military capabilities.

0403. Within the Defence Planning process, the Force Planning determines overall force structure whilst the other Principal Planning Disciplines (Logistics, Movement, Medical, CIS, Resources and Armaments) generate requirements to support the national contributions to the force structure. Force Planning encompasses a six-year planning horizon, validated biennially during the Force Goal Process.

Defence Requirements Review (DRR)

0404. The common basis for the Principal Planning Disciplines is found in the documents mentioned above as well as in the SCs' Mission (MC 109), the description of the Security Environment (MC 161) and the BI-MNC Staff Guide to NATO Defence Planning. The implementation of this guidance is done through further detailed planning such as, amongst others, the biennial BI-SC Defence Requirement Review (DRR).

0405. The Defence Requirements are drawn from a set of basic assumptions together with a list of Planning Situations (PS). The PSs are analysed in order to determine the operational capabilities required to successfully accomplish the SCs' mission.

0406. Due to the specific importance of the medical needs, a separate medical section is added to logistics requirements. As a result of this periodical process, medical policies are reviewed and new challenges considered. As a consequence, the previous medical requirements are revisited and new ones are formulated, as appropriate. These requirements represent the basis for the Force Goal Process.

Force Proposals/Force Goals

0407. Force Proposals are requirements, aimed at specific objectives, arranged in packages by the SCs, to be addressed to individual nations and formally discussed with them during bilateral meetings (the so called "Bilaterals"). Medical requirements are included in these packages.

0408. After a series of additional meetings, both with military (International Staff, International Military Staff) and politico-military (Defence Planning Committee, Defence Review Committee) representatives, the requirements are refined and coordinated into the Force Goals. (Fig. 5-2).

0409. The Force Goal Process produces collectively agreed specific planning targets for individual countries to meet and results in national commitments to NATO for the following two years.

Annual Defence Review

0410. The Annual Defence Review (ADR) provides the means by which NATO monitors national defence plans to assess their compliance with and progress in meeting the Force Goals. The Defence Planning Questionnaire (DPQ) is the main tool used to assess national capabilities and measure national contributions.

0411. Whilst medical contributions to forces may be generically addressed in the whole DPQ, they are assessed in detail in specific parts, where nations declare the existence and status of their medical resources and their plans for future developments in medical support. The ADR leads to a reappraisal of the requirements, thus initiating the next Defence Planning Review Cycle.

0412. “Out of cycle” consultations are possible and necessary where a country is contemplating important changes to commitments and plans already approved at ministerial level and where the timetable for national decisions prevents considerations of these changes in the next ADR.

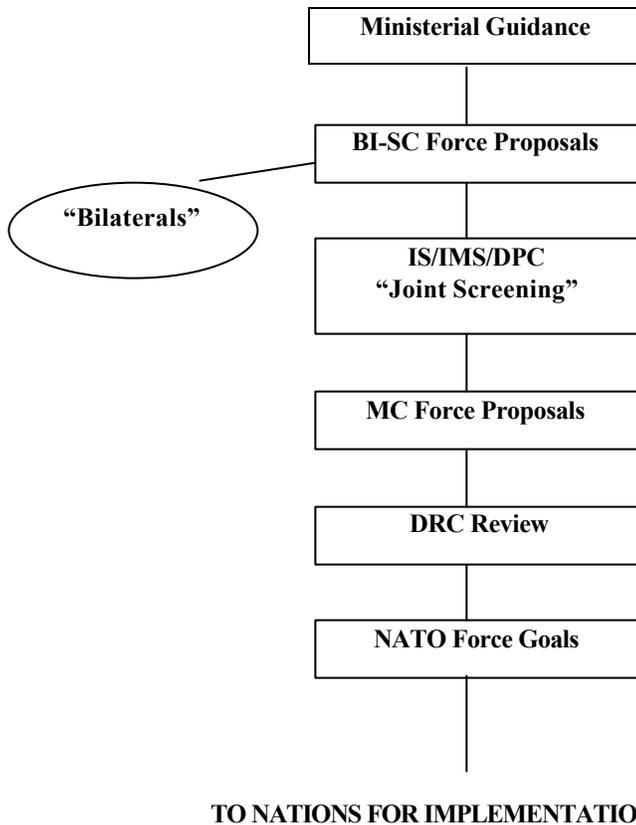


Fig. 5-2 - The Force Planning Process overview chart

Resource Planning

0413. The aim of resource planning is to develop and promulgate policy and priority guidance for the establishment of resource requirements and funding requests. Resource planning encompasses infrastructure, financial (budget) and manpower planning.

0414. The Defence Planning Process is linked with the Infrastructure Planning through the Capability Packages (CPs). Each CP addresses the resources needed to achieve a specific capability to execute NATO plans. Medical strategic and theatre level shared resources are susceptible to becoming part of a CP.

0415. The SCs issue annual guidance for the preparation of new CPs. The RCs, in consultation with their SCs, HN(s) and user nations develop the CPs that supports the required capabilities within their AOR. The package execution should happen in a reasonable timeframe, normally five years from time of approval.

0416. The use of civil resources is an integral part of NATO strategic concept. Civil and military cooperation covers planning for cooperation between civil authorities and military commanders in support of NATO operations. It overlaps HN support and reinforcement planning and includes the assistance given to the civil population by NATO Forces.

SECTION 3 - MEDICAL OPERATIONAL PLANNING PROCESS

0417 This section focuses on medical planning at the operational level. The disparate nature of NATO operations dictates that a medical support plan be purpose-built for each operation. The characteristics of NATO operations make it essential that initial outline planning be done rapidly, often with limited information and without the benefit of detailed reconnaissance. The operational estimate must be sufficiently comprehensive and accurate to allow for a reasonable estimate of resources requirement and initial planning, as comprehensive as possible. Given these constraints and imperatives, it is crucial that a straightforward and standardised planning process be used. The aim of this section is to provide an outline process that can be used as a tool for medical planning.

Planning Sequence

0418. An operations planning process is a coordinated staff process to determine the best method of accomplishing assigned operational tasks or of planning for possible future tasks. The planning process is designed to optimise logical, analytical steps of decision making in conditions of uncertainty and ambiguity. Planning will usually be inhibited by inadequate information, insufficient time and limited resources.

0419. Advanced Planning is the process of initiating and developing scenario-based plans in anticipation of requirements without time being a restriction on the process. The normal outcome of Advanced Planning is a COP. Implementation Planning is the process of initiating and developing plans in response to a current or developing crisis. Time is invariably a critical factor that necessitates expeditious coordination and approval of the developing plan. The normal outcome of Implementation Planning is an OPLAN.

0420. Advanced and Implementation planning, whether conducted at the strategic, operational, or tactical level, follows five logical stages:

- a. Initiation
- b. Orientation
- c. Concept Development
- d. Plan Development
- e. Plan Review

0421. Initiation - The operation planning process may be started at varying levels in response to either political or military events. Normally, the SC will receive political direction from the NAC/DPC or the MC. However, before the NAC or MC issues an Initiating Directive, they may receive advice from the military commander in the form of military options to be considered. The outcome of the Initiation Stage is an Initiating Directive, from the superior commander to his subordinate commander(s).

0422. Orientation - On receipt of the Initiating Directive, the commander will determine what has to be accomplished. The planning staff will conduct a detailed Mission Analysis, develop a Mission Statement, and brief the commander who, in turn, will issue his Planning Guidance. The three key elements of the commander's Planning Guidance are: his initial intent, his vision (which should include the desired end state), and the mission.

0423. Concept Development - Concept Development begins with a review of the commander's Planning Guidance, produced in the previous stage. This provides the necessary direction and guidance to the planning staff to conduct a staff analysis and subsequently shape the development of the Courses of Action (COAs). A COA is a possible option open to the commander that would accomplish the mission. It is initially stated in broad terms, with further details determined during the actual COA analysis. Additionally, it provides a framework for the necessary staff analysis that must consider all factors and deductions to determine the viability of the various options. The final product of this planning stage is a Concept of Operations (CONOPS) based on a single COA, chosen by the Commander.

0424. The CONOPS is derived through a comprehensive, logical analysis of the situation and the development and comparison of a number of viable COAs. Four steps are conducted during this stage:

- a. Staff Analysis
- b. COA Development
- c. Decision Brief
- d. CONOPS Development

0425. Plan Development - With approval of the CONOPS by the Initiating Authority, the staff will then develop the COP or the OPLAN as appropriate. Again, this is an iterative process and will include the development of the initial COP/OPLAN, identification of forces required, and a force deployment plan. Approval of the COP/OPLAN rests with the Initiating Authority. Fig. 5-3 illustrates the parallel nature of Medical Planning, which is conducted in concert with operations and logistics planning.

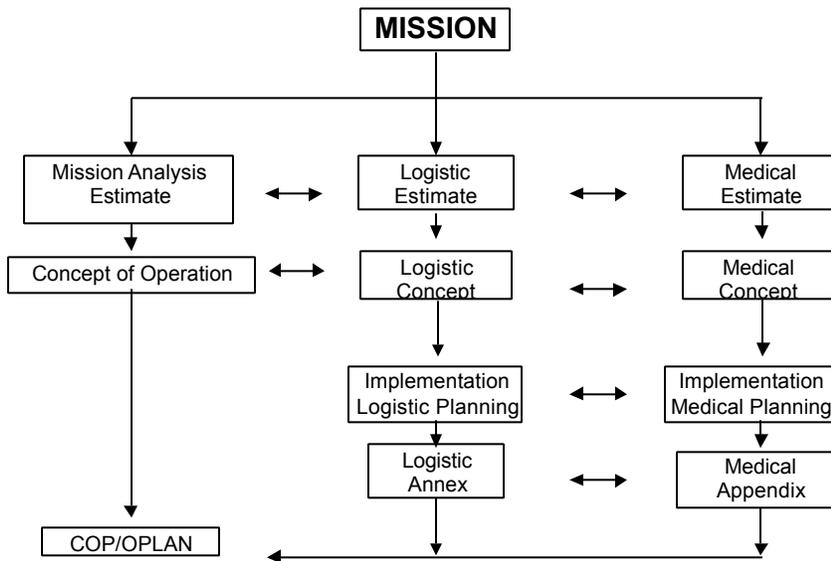


Fig.5-3 – Relationship between Operational, Logistic and Medical Planning

Development of Medical Concept

0426. The first and most essential step in the medical planning process is to have a clear understanding of the medical mission. Critical to this understanding are the operational scenario and the commander's intent. These factors will provide the medical planners with key points for the use in their planning:

- a. The geographical and geopolitical characteristics of the TOO.
- b. The size, mission and deployment pattern of the deployed forces.
- c. The timeline for the operation.
- d. The expected duration of the mission.
- e. The expectations after the mission.

0427. These key strategic considerations will lead the planner to take into account other more detailed factors. In the development of the Medical Concept, medical planners must go through the process of medical support estimate, which includes the following steps:

- a. The statement of medical mission.
- b. The consideration of all factors influencing the operation from a medical perspective.
- c. The medical support analysis, which includes the casualty estimate, the medical support requirements and resources available.
- d. The evaluation and comparison of different medical COAs.
- e. The formulation of the medical concept, which stems from the chosen COA.

0428. The estimate process is central to the formulation of the concept of operation. The medical support estimate is prepared concurrently with the mission analysis in unison with other staffs (intelligence, operations, plans, logistics, CIS, etc.) and mirrors its framework.

0429. Assumptions may be required as a basis for preparing the estimate. These assumptions are modified when specific planning guidance and factual data become available. Key medical requirements at this stage will be:

- a. Properly briefed and trained medical or medical planning officer(s) should be deployed on site reconnaissance missions to evaluate medical capabilities and concerns in the TOO.
- b. Access and assess all available medical intelligence on the TOO.

0430. The calculation of medical resources to support a specific plan requires the estimate of casualties and patients that are to be collected treated and evacuated. In some cases likely casualty rates and medical limitations could become deciding factors in planning development because of their potential political and operational significance. Casualty estimate draws on the knowledge of a large number of factors, which are considered in the medical support estimate process.

0431. A format for the medical support estimate is offered at Annex A. The medical planner must interpret the categories and apply the pertinent information or modify the category to fit the operational scenario. He should focus on the medical operations to correct anticipated deficiencies and eliminate possible threats. The examples provided in this annex do not include all possible scenarios or information needed to complete an estimate. They are included for illustrative purposes only.

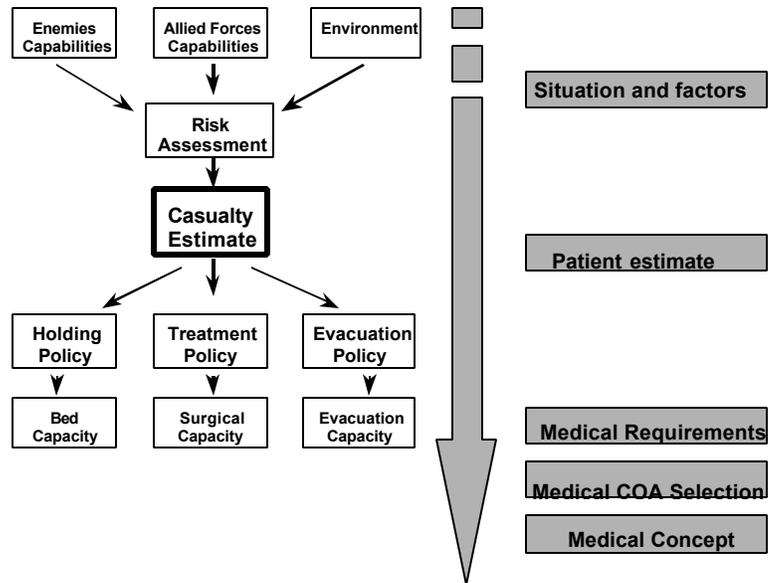


Fig.5-4 – The Development of the Medical Concept

Medical Concept

0432. The formulation of the medical concept, building on the selected medical COA, concludes the initial medical planning phase. It explains the general principles of medical support for the given operation and identifies the means necessary to accomplish the mission. The medical support is tailored according to the time frame and phases of the operation. It identifies and adjusts for shortfalls and assesses risks, based on the difference between desired and attainable support.

Implementation Planning Phase

0433. The staff’s conduct following promulgation of the CONOPS, detailed planning of operations. All NATO OPLANs will include a Medical Support Appendix within the Logistics Annex, detailing the medical support that ensures feasible execution of the operational plan. A Medical Support Appendix is shown at Annex B to this chapter.

Medical Support Modelling, Analysis and Simulation Tools

0434. Once personnel casualties (BC and DNBI) rates have been agreed upon within the commander’s staffs, there are computer software tools available to translate these into casualty estimates and required medical resources (number of beds, surgical teams, blood units, etc.)

0435. The ACE Medical Resource Guidance (MRG) Model and the Logistic Processor Medical (LPX-MED)⁴ are used by medical planners in NATO to generate medical support requirements, either theatre-wide or by operations. The MRG model was developed for use by NATO commands and nations, and LPX-MED for use by the U.S. Joint Staff.

⁴ A planned update of LPX-MED is the Medical Analysis Tool – 2 (MAT-2)

0436. Both models require extensive high quality input data in order to provide credible medical requirement estimates. MRG and LPX-MED use a common data set, the USA Department of Defence Deployable Medical Systems (DEPMEDS) NATO 1995. Since they are based on similar assumptions, when they use the same input, they are able to produce similar results in term of BC rates, stratification of casualties, bed and surgical team requirements.

0437. However, LPX-MED is a more complex and comprehensive model, which allows it to provide features that are not available in MRG. It allows the planners more control over input parameters and calculation of requirements for separate forces within one scenario. It includes a system of checks and balances that forces the user to enter consistent data and the ability to visually represent the geographic location of casualty sources in a scenario. Finally, LPX-MED provides the option to evaluate different COAs.

Medical Resource Planning for Operations

0438. The Medical Support Appendix to the COP/OPLAN will determine the medical resource requirements. The CNs are presented with a medical Statement of Requirement (SOR) that is implemented through the formalised procedure of Planning Conferences.

0439. This Medical SOR lists the medical resources (facilities, capabilities, supplies, services, etc.) to support the OPLAN. A serial number identifies needed medical resources. The SOR is normally refined with the CNs at the Medical Planning Conferences.

0440. These conferences are intended to provide specialist medical input and are held at SC level with participation from RCs and Nations. They can take place either within the Logistic Planning Conferences or be held in parallel with the Logistic Planning Conferences they mirror.

0441. The scope of the conferences is to ensure transparency in the medical planning process and coordinate the medical support for the operation. It is stressed that the planning process is a collective responsibility shared between NATO HQ staffs and nations.

0442. The following are the principal Medical Planning Conferences, but others can be held as and when required.

- a. Initial Medical Planning Conference. Its main objectives are:
 - (1) Inform nations about the mission and medical concept.
 - (2) Refine the medical concept.
 - (3) Review the medical C2 structure.
- b. Main Medical Planning Conference. Its main objectives are to identify:
 - (1) Medical requirements.
 - (2) National medical contributions.
 - (3) Medical functions that could be implemented via multinational agreements.
 - (4) Medical shortfalls.

c. Final Medical Planning Conference. It is held after nations' formal commitment of forces and before the Activation Order (ACTORD). Its main objectives are:

- (1) Confirm the medical plan.
- (2) Optimise the overall medical support for the operation.
- (3) Resolve any outstanding medical issues.

SECTION 4 - MEDICAL EXERCISE PLANNING

General

0443. The aim of medical exercises is to improve the capability of NATO and national forces, HQs and agencies to provide and employ medical support to the troops deployed. These exercises are used for the enhancing of medical cooperation and interoperability among forces of different nationalities.

0444. Exercise planning is to be conducted as close as possible to operational planning to engender familiarity with the process, although obvious differences between operation and exercise planning are apparent. Unlike with medical operational planning, where all casualties are real, medical exercise planning needs to cater for both exercise casualty management play and real medical cover. Therefore, when exercising with troops, both of these must be carefully planned to ensure medical exercise aims and objectives are met without prejudice to the safety of participants, in compliance with the NATO Exercise Planning Guide (EPG).

0445. In general terms, once exercises have been approved for execution, the Officer Scheduling the Exercise (OSE) develops the initial Exercise Specifications (EXSPEC) and the initial draft Exercise Planning Instruction (EXPI) based on the Exercise Concept of Operations (EXCONOPS). The importance of the EXSPEC is paramount because it states the fundamental requirements for, and the scope of, the exercise and will serve as a basis for subsequent exercise development. In particular it includes the medical exercise objectives.

0446. Subsequently the Officer Conducting the Exercise (OCE) produces his orders in the form of a more specific Exercise Operation Plan (EXOPLAN) and Exercise Operation Order (EXOPORD). The final EXOPLAN/EXOPORD produced by each Force Commander will contain all the instructions, safety procedures and exercise artificialities required by the participants to safely conduct the exercise.

Exercise Control Organisation

0447. The EXOPLAN Medical Support Appendix will be similar to the Medical Support Appendix attached to an OPLAN, but will include the Exercise Control Organisation.

0448. The main elements of the exercise control organisation will be:

- a. Directing Staff (DISTAFF). It will control the exercise following the Main Events List (MEL) and Main Incident List (MIL), which determine all exercise activities. Medical DISTAFF are linked to the Casualty Organisation (CASORG), through which casualty simulation (CASSIM) is facilitated.
- b. CASORG. It will have its own HQ responsible for co-ordinating the activities of the CASORG Cells. CASORG is made up of the following cells:
 - (1) Reception: it will documentate and register role players.

- (2) CASSIM: it will make up and brief role players.
 - (3) Insertion: it will escort role players from CASSIM to the incident location.
 - (4) Transport: it will provide the correct amount and types of vehicles required to transport role players to the incident location.
 - (5) Logistic support: it will provide the day to day administrative requirements of the CASORG and role players (feeding, accommodation, etc.).
 - (6) Umpires will observe, evaluate and report on the performance of the player medical units in dealing with the role players.
- c. Medical Higher Control (HICON) is the theatre level medical organisation that simulates the TSG, MEDCC and PECC.
 - d. Medical Lower Control (LOCON) represents the lower level medical organisation (medical units) that are not physically taking part in the exercise.

Medical Exercise Planning Conferences

0449. As part of the exercise planning process, conferences are held to discuss, coordinate and produce the final EXOPLAN. The following conferences are likely to take place:

- a. The Initial Planning Conference (IPC) will convene to develop the first draft of the EXPI to commence the Operational Planning Process (OPP) by the OCE. This will include discussion on exercise timings, location, concept of operations, medical objectives and medical forces taking part (players and real medical cover) and identification of problem areas.
- b. The Initial Operational Planning Conference (IOPC) will give more precise guidance on the intended conduct and organisation of the medical exercise.
- c. The Main Operational Planning Conference (MOPC) would continue to plan and coordinate all factors related to the medical exercise and endeavour to solve any outstanding issues.
- d. The Final Operational Planning Conference (FOPC) would approve the medical part of the final EXOPLAN.

MEDICAL SUPPORT ESTIMATE FORMAT

References. List all relevant maps, overlays, charts, documents, MOUs, bilateral agreements, etc.

1. MISSION

This is a statement of the medical mission for the operation to be supported, consistent with the overall mission statement. It should be framed as a clear, concise statement of the essential tasks to be accomplished and the purpose to be achieved.

2. SITUATION AND FACTORS**a. Enemy/Potentially Threatening**

- (1) Strength and disposition: Numbers and types of enemy forces or opposition groups and their locations.
- (2) Combat efficiency: Information on enemy units, their training status and their level of experience and expertise.
- (3) Capability: Information on weapons (infantry, armour, special forces, etc.) and whether or not the enemy has an NBC capability (and if there is a will to use it).
- (4) Logistic situation: Information on the quality and quantity of the enemy's logistics and how well defined is the logistics resupply system.
- (5) State of health: Assessment of the state of health of the enemy military and civilian population.
- (6) Weapons effects: More than ever before, the most modern fragmenting weapons are likely to cause a greater proportion of multiple injuries involving multiple systems. Hardened medical facilities may be required to take account of the effects of the enemy's weapons.

b. Ground

- (1) Topography: Land mass, coast line, mountain areas, areas of jungle, desert, likelihood of natural disasters (earthquakes, volcanoes, etc.).
- (2) Infrastructure: State of the country's electrical, gas, water and sewage supplies.
- (3) Road capacity: State and suitability of the road system for evacuation purposes.
- (4) Airports: Locations and suitability of airports for evacuation purposes.
- (5) Seaports: Locations and suitability of seaports for evacuation purposes.
- (6) Railways: Suitability of railway system for casualty evacuation use (capacity, suitability of the rolling stock and the reliability of the railway system).
- (7) Rivers: Navigability and suitability for large boats for evacuation purposes.

- (8) Other: other factors, concerning the ground, which might affect the medical plan.
- c. **Climate.** This includes the yearly weather pattern and its likely or possible health effects on friendly forces.
- d. **Civilian Population.** A good understanding of the culture, political, economic, religious, and social situation of the populace involved is a crucial element in planning. If conventional military operations are being undertaken in the area, the effect these operations have on the civilian population must be considered. Estimates of civilian casualties resulting from operations requiring medical attention, and the impact and number of refugees requiring medical care, preventive medicine, and veterinary support should be included. The following parameters may need to be considered:
 - (1) Number: Estimated number of civilian population to be supported.
 - (2) Location: Main areas of civilian population.
 - (3) Attitude to NATO Force: Likelihood of the civilian population requesting medical attention from the friendly forces.
 - (4) Other.
- e. **Local Resources.** What can be provided in country.
 - (1) Real estate.
 - (2) Power.
 - (3) Transportation.
 - (4) Labour.
 - (5) Material.
 - (6) Medical.
 - (7) Other.
- f. **Friendly Forces.** What medical facilities do each of the deployed friendly forces have and how are they configured? What is the medical and evacuation capability of each deployed force?
- g. **Additional Elements to be Supported.** Assessment of the medical requirements needed to support personnel other than friendly forces.
 - (1) Prisoners of War (POW).
 - (2) Refugees and displaced persons.
 - (3) All other protected personnel for whom health care responsibility is required under the provisions of the 4th Geneva Convention.

h. **Health (Preventive Medicine Measures).** An assessment, based on known medical intelligence, of the possible adverse health effects on troops in a particular area, given that area's climate, presence of disease, flora and fauna etc. and the state of health and readiness (immunisation, clothing and equipment) of friendly forces. The following points need to be considered:

- (1) Acclimatisation of troops.
- (2) Presence of endemic or epidemic disease.
- (3) Water supply.
- (4) Living and sanitary conditions.
- (5) Pollution.
- (6) Hazardous animals and plants.
- (7) Status of immunisation of own troops.
- (8) Clothing and equipment (cold weather, hot weather, mosquito nets, etc.).
- (9) Stress management.
- (10) Status of training.
- (11) Other non military medical organisations (Government Organisations, NGOs and Private Voluntary Organisations (PVOs)).

i. **Assumptions**

3. MEDICAL SUPPORT ANALYSIS

From the CONOPS and the deductions made on each of the above mentioned factors the following can be given:

a. **Casualty Estimate.** An estimate of the number of casualties (friendly forces, enemy forces and civilians) provided by J3 that would be required to be treated in friendly forces medical facilities.

b. **Medical Support Requirements.** From the casualty estimates the following number and type of medical requirements can be ascertained:

- (1) Role/Echelon 1/2/3 MTFs and augmentations
- (2) Role/Echelon 4
- (3) HNS or local resources
- (4) Evacuation assets (Tactical/Strategic: road, rail, sea and air)
- (5) Medical logistics
- (6) Blood and blood products

- (7) Veterinary services
- (8) Preventive medicine services and environmental health team(s)
- (9) Dental services
- (10) Command, Control, Communications and Information (C3I) assets

c. **Resources Available.** Known medical resources that would be provided by CNs as part of the Force Generation Package, by the HN and other estimated medical resources.

- (1) Organic medical units and personnel
- (2) Attached medical units and personnel
- (3) Supporting medical units
- (4) HNS or local resources
- (5) Retained enemy medical personnel
- (6) Medical supply
- (7) Budgeting
- (8) Other

4. EVALUATION AND COMPARISON OF COURSES OF ACTION

a. As a result of the above considerations and analysis, a list of all logical COAs, which support the commander's operational plan and accomplish the medical support or medical operation mission will be determined. COAs are expressed in terms of WHAT, WHERE, WHEN, HOW, and WHY.

b. The probable outcome of each COA should be compared to determine which one offers the best chance of success. This may be done in two steps:

- (1) Determine and state those anticipated difficulties that will have a different effect on the COAs.
- (2) Evaluate each COA against each significant difficulty to determine strengths and weaknesses inherent in each.

c. After the staff has completed the analysis the commander evaluates the advantages and disadvantages of each COA, and makes a decision on which best meets his operational objective. The decision constitutes the basic directive for the completion of initial planning and subsequent action.

OPLAN MEDICAL SUPPORT APPENDIX FORMAT

References: List of references that provide guidance and applicable SOPs.

1. SITUATION

Medical assessment of issues that affect the health and medical care of deployed forces. This section should provide information like geographic factors, endemic disease types, special environmental and occupational hazards, chemical and biological warfare capabilities of protagonists as well as medical resources available in the TOO. The medical intelligence report may be added as a separate table.

2. MISSION

Short statement of the purpose of medical mission and the desired end state.

3. ASSUMPTIONS

Statement of circumstances and facts taken for granted in the development of the medical plan. This area is also a place where casualty rates and estimates may be included.

4. EXECUTION**a. Concept of Medical Support**

- (1) This paragraph provides the general outline of how medical support will be provided.
- (2) Briefly outline CNs' support responsibilities and role of NSEs.
- (3) Outline the general lines of coordination for multinational medical support.
- (4) Outline the key medical tasks by the phases of the operation. This could be a rather long section because each phase of the operation will be listed with subordinate paragraphs under each phase explaining the major tasks.
- (5) Provide the theatre evacuation policy.

b. Tasks/Responsibilities

- (1) Assign specific support responsibilities to multinational and national medical units/treatment facilities by Role/Echelon. In addition, delineate tasks and responsibilities of multinational and national staffs as well as the medical C2 structure.
- (2) If appropriate, delineate responsibilities for further medical support planning or operations.
- (3) Designate a time for supporting medical plans to be submitted.

- c. **HNS.** Delineate the responsibility and the capability of the HN to provide medical support, and the mechanism to arrange such support.
- d. **Communications.** Describe the medical communication system, its aim and scope, highlighting that, which is dedicated to medical and those systems, which are available for medical in confidence communications.
- e. **Medical Evacuation.**
- (1) Establish the overall concept for ground, air and sea medical evacuation.
 - (2) Delineate national or multinational responsibility for medical evacuation.
 - (3) Describe the coordination and request channels for medical evacuation, evacuation frequencies. Include the role of the medical coordinating and the theatre movement control centre. Include an evacuation diagram, if possible.
- f. **Reporting.** Describe the medical briefing and reporting procedures, including their frequencies. If possible include a medical reporting matrix. Ensure that a full description of the reports required for the epidemiological survey and medically relevant incidents is included in this section.
- g. **Preventive Medicine.** Based on the information provided in the medical intelligence assessment this paragraph should outline the key preventive medicine considerations. This should include such things as required immunisations, disease vector control, required health education, and sanitation training.
- h. **Veterinary Services.** Describe the general concept for food and water inspection and veterinary service programme (in some countries food and water inspection is performed as an environmental health function).
- i. **Dental Services.** Apply the same guidance as for paragraph h. above.
- j. **Medical Logistics.** This area includes the provision, supply and maintenance of medical material. In cases where provision extends beyond national responsibility supply and coordination procedures must be established.
- k. **Blood Management.** This is an extremely sensitive area, the management of which must be carefully monitored. While all of principles for managing general medical logistics apply, the details of quality control and testing procedures must be outlined for any multinational use of blood products.
- l. **Medical Waste Management.** Describe the hazardous medical waste management policy and system that will apply within theatre, including collection points, packaging, labelling and the responsibilities of the HN in this regard.
- m. **Humanitarian Medical Aid.** State the policy for humanitarian medical aid.
- n. **Tabs & Attachments to the Medical Plan**
- (1) These amplify statements made within the medical plan (medical intelligence, communications matrix, reports and returns matrix, etc.).

(2) It is advisable that a Theatre Medical Information Handbook be produced as soon as possible after entering theatre. This handbook should give all relevant operational medical facts such as the medical organisation, location of medical facilities including HN (grid references, telephone numbers, personalities, capabilities etc.) and full details of the evacuation procedures, preventive medicine and humanitarian aid policies. This medical handbook should be a living document, which is updated on a regular basis or when there has been a fundamental change to medical policies or procedures. Once produced, the handbook should have a wide distribution throughout the medical community down to Role/Echelon 1 and within HQs and the supporting staff chain.

ABBREVIATIONS AJP-4.10

A

| | |
|--------|---|
| ACE | Allied Command Europe |
| ACLANT | Allied Command Atlantic |
| ACTORD | Activation Order |
| AE | Aeromedical Evacuation |
| AECC | Aeromedical evacuation Control Centre |
| AECO | Aeromedical Evacuation Coordinating Officer |
| AELT | Aeromedical Evacuation Liaison Team |
| AEOT | Aeromedical Evacuation Operations Team |
| AJF | Allied Joint Force |
| ALCC | ACE Logistics Coordination Centre |
| ALSS | Advanced Logistic Support Site |
| AMCC | Allied Movement Control Centre |
| AOR | Area of Responsibility |
| APOD | Air Point of Debarkation |
| APOE | Air Point of Embarkation |

B

| | |
|-------------|---|
| BC | Battle Casualty |
| BI | Battle Injuries |
| BI-SC MEDAG | Bi-Strategic Command Medical Advisory Group |

C

| | |
|--------|---|
| CAPC | Civil Aviation Planning Committee |
| CASSIM | Casualty Simulation |
| CASORG | Casualty Organisation |
| CECC | Civil Emergency Crisis Cell |
| CIMIC | Civil-Military Cooperation |
| CIS | Communications and Information System |
| CJTF | Combined Joint Task Force |
| CN | Contributing Nations |
| COA | Course of Action |
| COMMZ | Communication Zone |
| COP | Contingency Operation Plan |
| CP | Capability Package |
| CRONOS | Crisis Response Operations in NATO Open Systems |
| CSU | Casualty Staging Unit |

D

| | |
|---------|---------------------------------|
| DCI | Defence Capabilities Initiative |
| DEPMEDS | Deployable Medical Systems |
| DISTAFF | Directing Staff |
| DNBI | Disease Non-Battle Injury(ies) |
| DPQ | Defense Planning Questionnaire |
| DRR | Defence Requirements Review |

E

| | |
|----------|-----------------------------------|
| EAPC | Euro-Atlantic Partnership Council |
| EPG | Exercise Planning Guide |
| EXCONOPS | Exercise Concept of Operations |
| EXOPLAN | Exercise Operation Plan |

NATO UNCLASSIFIED

| | |
|----------|--|
| EXOPORD | Exercise Operation Order |
| EXPI | Exercise Planning Instruction |
| EXSPEC | Exercise Specifications |
| F | |
| FLS | Forward Logistic Site |
| FOPC | Final Operational Planning Conference |
| FPG | Functional Planning Guide |
| FSA | Forward Support Area |
| H | |
| HICON | Higher Control |
| HN | Host Nation |
| HNS | Host Nation Support |
| I | |
| ICR | In-Country Resources |
| ICRC | International Committee of the Red Cross |
| IEF | In-Transit Evacuation Facility |
| IO | International Organisation |
| IOPC | Initial Operational Planning Conference |
| IPC | Initial Planning Conference |
| IRF | Immediate Reaction Force(s) |
| ITV | In-Transit Visibility |
| J | |
| JMC | Joint Medical Committee |
| JOC | Joint Operations Centre |
| JTCC | Joint Transportation Coordination Centre |
| L | |
| LCC | Land Component Command |
| LN | Lead Nation |
| LOCON | Lower Control |
| LPX-MED | Logistic Processor Medical |
| M | |
| MASCAL | Mass Casualty |
| MC | Military Committee |
| MCC | Maritime Component Commander |
| MEDAD | Medical Advisor |
| MEDCC | Medical Coordination Centre |
| MEDHNS | Medical Host Nation Support |
| MIMU | Multinational Integrated Medical Unit |
| MJLC | Multinational Joint Logistic Centre |
| MNCCS | Multinational Component Command Surgeon(s) |
| MNFS | Multinational Force Surgeon |
| MNLC(A) | Multinational Logistic Centre (Air) |
| MNLC(L) | Multinational Logistic Centre (Land) |
| MNLC(M) | Multinational Logistic Centre (Maritime) |
| MNMF | Multinational Maritime Force |
| MOA | Memoranda of Agreement |
| MOPC | Main Operational Planning Conference |

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| MOU | Memorandum of Understanding |
| MRG | Medical Resource Guidance |
| MSA | Mutual Support Agreement |
| MSC | Major Subordinate Command |
| MTF | Medical Treatment Facility |
| N | |
| NAC | North Atlantic Council |
| NAMSA | NATO Maintenance and Supply Agency |
| NATO | North Atlantic Treaty Organisation |
| NGO | Non-Governmental Organisation |
| NMCC | National Movement Coordination Centre |
| NMLT | National medical Liaison Team |
| NPS | NATO Precautionary System |
| NSE | National Support Element |
| NSMO | National Senior Medical Officer |
| O | |
| OCE | Officer Conducting the Exercise |
| OMF | Originating Medical facility |
| OPCOM | Operational Command |
| OPCON | Operational Control |
| OPLAN | Operational Plan |
| OSCE | Organisation for Security and Cooperation in Europe |
| OSE | Officer Scheduling the Exercise |
| P | |
| PAR | Population at Risk |
| PCRS | Primary Casualty Receiving Ship |
| PE | Peace Establishment |
| PECC | Patient Evacuation Coordination Centre |
| PfP | Partnership for Peace |
| PI | Public Information |
| PIO | Public Information Operations |
| PIR | Priority Intelligence Requirement(s) |
| PKO | Peace Keeping Operations |
| POW | Prisoners of War |
| PSO | Peace Support Operations |
| PTSD | Post Traumatic Stress Disorder |
| PVO | Private Voluntary Organisation(s) |
| R | |
| RALCC | Regional Airlift Control Centre |
| RC | Regional Command(er)s |
| RFI | Request for Information |
| ROE | Rules of Engagement |
| RRF | Rapid Reaction Force(s) |
| RS | Role Specialisation |
| RSA | Rear Support Area |
| RSN | Role Specialisation Nation |
| S | |
| SACEUR | Supreme Allied Commander Europe |

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| SACLANT | Supreme Allied Commander Atlantic |
| SC | Strategic Command(er) |
| SCEPC | Senior Civil Emergency Planning Committee |
| SDC | Strategic Direction Centre |
| SMO | Senior Medical Officer |
| SOFA | Status of Forces Agreement |
| SOP | Standing Operating Procedure |
| SOR | Statement of Requirement |
| SPOD | Sea Point of Debarkation |
| SPOE | Sea Point of Embarkation |
| STANAG | Standardisation Agreement |
| SUPLAN | Support Plan |

T

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| TOA | Transfer of Authority |
| TOO | Theatre of Operations |
| TS | Theatre Surgeon |

U

| | |
|----|----------------|
| UN | United Nations |
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W

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| WEU | Western European Union |
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GLOSSARY OF TERMS AND DEFINITIONS

ADVANCED LOGISTIC SUPPORT SITE: An ashore site that provides logistic and medical support to a MNMF. It may be the primary transshipment point for material and personnel to and from afloat units.

ALLIED JOINT OPERATION: An operation carried out by forces of two or more NATO nations, in which elements of more than one service participate.

AEROMEDICAL EVACUATION: The movement of patients under medical supervision to and between medical treatment facilities by air transportation.

AEROMEDICAL EVACUATION CONTROL 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 AE elements in the system and monitors patient movement activities.

AEROMEDICAL EVACUATION COORDINATING OFFICER: An officer of an originating, in-transit or destination medical facility/establishment who coordinates AE activities of the facility/establishment.

AEROMEDICAL EVACUATION, FORWARD: That phase of evacuation which provides airlift for patients between points within the battlefield, from the battlefield to the initial point of treatment, and to subsequent points of treatment within the combat zone.

AEROMEDICAL EVACUATION (INTER-THEATRE), STRATEGIC: That phase of evacuation which provides airlift for patients from overseas areas or from theatres of active operations, to the home base, to other NATO countries, or to a temporary safe area.

AEROMEDICAL EVACUATION (INTRA-THEATRE), TACTICAL: That phase of evacuation, which provides airlift for patients from the combat zone to points outside the combat zone, and between points within the communication zone.

AEROMEDICAL EVACUATION OPERATIONS OFFICER: An officer of the airlift force or command who is responsible for activities relating to planning and directing AE operations, maintaining liaison with medical airlift activities concerned, operating an Aeromedical Evacuation Control Centre, and otherwise coordinating aircraft and patient movements.

ALLIED OPERATIONS: Operations carried out by forces of two or more NATO nations.

CAPABILITY PACKAGES: A combination of national and NATO funded infrastructure associated running costs which, together with the assigned military forces and other essential requirements, enable a NATO Commander to achieve a specific NATO Military Required Capability.

CASUALTY: In relation to personnel, any person who is lost to his organisation by reason of having been declared dead, wounded, injured, diseased, detained, captured or missing.

CASUALTY, BATTLE: Any 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.

CASUALTY, DISEASE NON-BATTLE INJURY: A grouping of casualties which are due to disease or injury not acquired in combat or relating to combat.

COMBINED JOINT OPERATIONS: Operations carried out by two or more military forces of two or more allied nations acting together for the accomplishment of a single mission.

CONFLICT PREVENTION: Different activities, in particular under Chapter VI of the UN Charter, ranging from diplomatic initiatives to preventative deployments of forces intended to prevent disputes from escalating into armed conflicts and from spreading. Conflict prevention can include fact finding missions, consultation, warning, inspections and monitoring. (*See also Humanitarian Operations, Peace Building, Peace Enforcement, Peacekeeping, Peace Making and Peace Support Operations*).

COORDINATING AUTHORITY: The authority granted a commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more countries, or two or more forces from the same Service. He has the authority to require consultation between the agencies involved or their representatives, but does not have the authority to compel agreement. In case of disagreement between the agencies involved, he should attempt to obtain essential agreement by discussion. In the event he is unable to obtain essential agreement, he shall refer the matter to the appointing authority.

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

EMERGENCY SURGERY: Surgery urgently necessary to preserve life, limb or functions.

ENVIRONMENTAL HEALTH: The control of all those factors in man's physical environment which exercise, or may exercise, a deleterious effect on his physical development, health or survival.

EVACUATION, MEDICAL: The medically controlled process of moving any person who is wounded, injured or ill to and/or between MTF.

EVACUATION POLICY: Command decision indicating the maximum length of time that a patient will be allowed in the theatre for treatment, recovery and return to duty. If the prognosis is that recovery will take longer than the evacuation policy, then the patient will be evacuated as soon as he/she is considered suitable for evacuation.

FRONT, CONTINUOUS: A defender force retains its essential defensive cohesion and does not permit significant attacker forces to penetrate to deep rear areas and engage in significant exploitation.

FRONT, DISINTEGRATED: A defender's resistance collapses across his full force nearly as quickly as the attacker ground forces engage. The attacker is able to engage the full defensive force to its full depth almost simultaneously with immediate decisiveness. Prior to the full ground assault, the defender's C3I coherence is stripped away, his air-power and major logistic nodes severely reduced and (e.g. similar to Desert Storm) his ground force significantly weakened.

FRONT, DISRUPTED: A defending force's cohesion is broken in one or more areas permitting significant attacker forces to penetrate rapidly to deep rear areas and engage in exploitation. Levels of disrupted front events are distinguished in terms of the degree of attacker success during the exploitation phase in catastrophically encircling/overrunning increasingly larger proportion of the defender force.

FORWARD LOGISTIC SITE: Normally the final land transshipment point which provides the bridge between an Advanced Logistic Support Sites (ALSS) and units at sea.

HOST NATION SUPPORT: Civil and military assistance rendered in peace and war by a HN to allied forces and NATO organisations which are located on or in transit through the HN's territory. The basis of such assistance is commitments arising from the NATO Alliance or from bilateral or multilateral agreements concluded between the HN, NATO organisations and (the) nation(s) having forces operating on the HN's territory.

HOST NATION SUPPORT, MEDICAL: Civil and/or military medical assistance rendered by a nation to foreign forces within its territory during peacetime, times of crisis/emergencies, or war-based upon agreements mutually concluded between nations or a NATO Command and a nation

HUMANITARIAN OPERATIONS: Missions conducted to relieve human suffering, especially in circumstances where responsible authorities in the area are unable, or possibly unwilling, to provide adequate support to the population. (*See also Conflict Prevention, Peace Building, Peace Enforcement, Peacekeeping, Peace Making and Peace Support Operations*).

INTELLIGENCE, MEDICAL: That category of intelligence resulting from collection, evaluation, analysis and interpretation of medical, bio-scientific, epidemiological and environmental information.

INTENSIVE CARE: That degree of care, which is extensive, highly technical and required because of the patient's actual or threatened inability to maintain vital function.

INTEROPERABILITY: The ability of systems, units or forces to provide services to and accept services from other systems, units or forces and to use the services so exchanged to enable them to operate effectively together.

JOINT FORCE COMMANDER: A general term applied to a commander (e.g. COMAJF) authorised to exercise command authority or operational control over a joint force.

LEAD NATION: One nation assumes the responsibility for procuring and providing a broad spectrum of logistic support for all or a part of the multinational force and/or headquarters. Compensation and/or reimbursement will then be subject to agreements between the parties involved. The lead nation may also assume the responsibility to coordinate logistics of other nations within its functional and regional area of responsibility.

MASS CASUALTY SITUATION: A Mass Casualty Situation is one in which an excessive disparity exists between the casualty load and the medical capabilities locally available for its conventional management.

MEDICAL ADVISOR: A medical officer (doctor) with wide medical, military and staff experience, assigned to a command HQs staff in order to ensure proper consultation on, and recognition of, all matters affecting medical operational planning and the forces' health. The medical Advisor has at all times the right of direct access to the HQ Commander.

MULTINATIONAL FORCES: Forces of more than one nation under a NATO commander or non-NATO commander within a NATO-led operation.

NATIONAL SUPPORT ELEMENT: Any national organisation or activity that supports national forces which are part of the NATO force. NSEs are OPCON to the national authorities; they are not normally part of the NATO force. Their mission is nation-specific support to units and common support that is retained by the nations.

ORGANISATIONS, GOVERNMENTAL: Organisations that are sponsored and financed by individual governments (e.g. UK Department for International Development (DfID), British Overseas Rescue Board, US Office for Foreign Disaster Assistance, etc).

ORGANISATIONS, INTERNATIONAL: Organisations that are sponsored and financed at an international level (e.g. United Nations High Commissioner for Refugees (UNHCR), World Food Programme, Office for Coordination of Humanitarian Activities, International Committee of the Red Cross (ICRS), World Health

Organisation (WHO) etc).

ORGANISATIONS, NON-GOVERNMENTAL: Organisations that are financed entirely by voluntary contributions and have no International or Governmental support (e.g. Mediciens Sans Frontiers, Danish Refugee Council, International Rescue Committee).

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 control, and/or tactical control, as may be deemed necessary. It does not, of itself, include responsibility for administration or logistics. It may also be used to denote the force assigned to a commander.

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 (TACON) 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.

OPERATIONAL LEVEL: Level at which military operations are planned and forces are employed to attain campaign objectives within a designated AOR. At this level, tactical successes achieved in engagements and major operations are combined to achieve strategic objectives.

PATIENT REGULATING: The process of directing, controlling and coordinating the transfer of patients within and without a TOO.

PATIENT TRACKING: The precise and continuous monitoring of the location and the intended destination of the patient in the medical treatment and evacuation chain.

PEACE BUILDING: Post conflict actions to identify and support political, economical, social and military measures and structures which tend to strengthen and solidify political settlements in order to avoid a return to conflict. This includes mechanisms to identify and support structures, which tend to consolidate peace, advance a sense of confidence and well being and support economic reconstruction. They may require military as well as civilian involvement. (*See also Conflict Prevention, Humanitarian Operations, Peace Enforcement, Peacekeeping, Peace Making and Peace Support Operations*).

PEACE ENFORCEMENT: A coercive military operation under Chapter VII of the UN Charter to restore peace in an area of conflict without the consent of all parties but in support of diplomatic efforts to reach a long term settlement. This can include dealing with an inter-state conflict or with internal conflict to meet a humanitarian need, or where internal state institutions have largely collapsed. (*See also Conflict Prevention, Humanitarian Operations, Peace Building, Peacekeeping, Peace Making and Peace Support Operations*).

PEACEKEEPING: The containment, moderation and/or termination of hostilities between or within states achieved with the general consent of the parties in dispute. This is usually through the medium of an impartial third party intervention, organised and directed internationally using military forces and civilian to complement the political process of conflict resolution, to restore and maintain peace through a long term settlement. PK is normally authorised under Chapter VI of the UN Charter. (*See also Conflict Prevention, Humanitarian Operations, Peace Building, Peace Enforcement, Peace Making and Peace Support Operations*).

PEACE MAKING: Any diplomatic action conducted after the commencement of a conflict aimed at establishing a cease-fire or rapid peaceful settlement. This can include the provision of good offices, mediation, conciliation and such actions as a diplomatic pressure, isolation or sanctions. (*See also Conflict Prevention, Humanitarian Operations, Peace Building, Peace Enforcement, Peacekeeping and Peace*

Support Operations).

PEACE SUPPORT OPERATIONS: Multi-functional operations conducted impartially in support of a UN/OSCE mandate involving military forces and diplomatic and humanitarian agencies and are designed to achieve a long term political settlement or other conditions specified in the mandate. They include peacekeeping and peace enforcement as well as conflict prevention, peacekeeping, peace building and humanitarian operations. (*See also Conflict Prevention, Humanitarian Operations, Peace Building, Peace Enforcement, Peacekeeping and Peace Making*).

POST OPERATIVE CARE: Care occurring soon after a surgical operation.

PREVENTIVE DEPLOYMENTS: Deployment of operational forces possessing sufficient deterrence capabilities to avoid a conflict. Normally consists of civilians and/or military forces.

PREVENTIVE MEDICINE: The services that are concerned with identifying, preventing and controlling acute and chronic communicable and non communicable diseases and illnesses with food and environmental hygiene, and vector control.

RAPID RESPONSE MEDICAL TEAM: A medical team at 24-hour readiness, able to be transported by air or road to the site of an incident.

REDISTRIBUTION AUTHORITY: The authority given to a NATO commander to redistribute certain resources, designated in peacetime and assigned to his command, and made available by nations, in order to support operations.

RESUSCITATION: The restoration of tissue perfusion and oxygenation.

ROLE SPECIALISATION: One nation assumes the responsibility for procuring a particular class of supply for all or a part of the multinational force. Compensation and/or reimbursement will then be subject to agreements between the parties involved.

STABILISATION: The maintenance of tissue perfusion and oxygenation.

STANDARDISATION AGREEMENT: The record of an agreement among several or all member nations to adopt or similar military equipment, ammunition, supplies and stores; and operational, logistic, and administrative procedures. National acceptance of a NATO allied publication issued by the Military Agency for Standardisation (MAS) may be as a STANAG.

STRATEGIC LEVEL: Level at which military operations are planned and forces are employed with other instruments of power to secure strategic objectives.

SUPPORT PLANS (SUPLANS): Plans that provide detailed amplification for particular planning areas and must be directly linked to a specified Contingency Plan (COP) or OPLAN.

SUSTAINABILITY: The Ability of a force to maintain the necessary level of combat power for the duration required to achieve its objectives.

TACTICAL LEVEL: level at which, military operations are planned and forces are employed to conduct military tasks in pursuit of campaign objectives.

THEATRE: The geographical area where a military operation is being conducted.

THEATRE SURGEON: A medical officer assigned as Medical Advisor to the Theatre Commander.

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