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Commander Commandant

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LETTER OF PROMULGATION
CANADIAN FORCES JOINT PUBLICATION
CFJP 4-10 – HEALTH SERVICES

1. Canadian Forces Joint Publication (CFJP) 4-10, Health Services, sets forth the doctrine governing the planning and execution of health services (HS) on operations at home or abroad, within the framework of either a joint, multinational, or multinational joint task force.

2. This publication has been harmonized with CAF joint doctrine and the environmental support doctrine publications of the Royal Canadian Navy, the Canadian Army, and the Royal Canadian Air Force (RCAF). As the CAF will often be working alongside allies, this publication incorporates HS doctrine published by the North Atlantic Treaty Organization (NATO), and standards published by the American, British, Canadian, Australian and New Zealand Armies Program (ABCANZ).

3. CFJP 4-10, Health Services is a new joint publication and is effective immediately. Comments concerning this publication should be forwarded to its custodian, Canadian Forces Health Services through the Joint Doctrine Section of the Canadian Joint Warfare Centre.

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For
J.R. (Bob) Auchterlonie
Vice-Admiral

Preface

01. **Aim**. The aim of this capstone Canadian Armed Forces (CAF) joint publication (CFJP) is to set forth doctrine governing the planning and execution of health services (HS) on operations at home or abroad, within the framework of either a joint, multinational, or multinational joint task force.

02. **Policy context**. This publication has been harmonized with CAF joint doctrine and the environmental support doctrine publications of the Royal Canadian Navy, the Canadian Army, and the Royal Canadian Air Force (RCAF). As the CAF will often be working alongside allies, this publication incorporates HS doctrine published by the North Atlantic Treaty Organization (NATO), and standards published by the American, British, Canadian, Australian and New Zealand Armies Program (ABCANZ).

03. **Scope**. CFJP 4-10 *Health Services* comprises the basic reference on the manner in which support will be provided at the operational level of command, and provides the overarching doctrinal framework for other CAF HS publications. A series of subordinate HS doctrine will be promulgated as Canadian Forces Health Services Publications (CFHSP) to further develop concepts in this publication and provide greater clarity for the operational and tactical levels.

04. In order to increase interoperability with key allies this publication reflects NATO concepts and terminology where appropriate. Changes from extant CAF terminology are identified in footnotes.

05. Due to the complexity of planning and providing health care in a chemical, biological, radiological, and nuclear (CBRN) environment this publication only provides minimal content on the subject. Canada has adopted NATO's comprehensive doctrine series regarding medical support during CBRN operations. For further information see the Allied Joint Medical Publication 7 (AJMedP-7) series.

06. NATO Standardization Agreements (STANAG) referred to in this document have been ratified by Canada. The current version of most STANAGs can be found on the NATO Standardization Organization (NSO) public website. Any not available on the public site can be found on the NSO protected site (requires login). Most, but not all, STANAGS are available in French. HS-related ABCANZ standards referred to in this document have been approved by the Commander Canadian Forces Health Services. They are only available in English.

07. Hyperlinks provided in this document are current at the time of promulgation. Hyperlinks may change over time. To ensure you are using the most current Joint doctrine please visit http://intranet.mil.ca/en/organizations/cjoc/cfwc-joint-doctrine-publication.page and for Canadian Army doctrine please visit the Army Electronic Library at http://acims.mil.ca/sp/CADTC_DAD_AEL/default.aspx, and Canadian Forces Health Services publications at http://cmp-cpm.mil.ca/en/health/policies-direction/doctrine-library.page.

08. Recommendations for amendments to this publication are welcomed and should be forwarded to the Canadian Joint Warfare Centre and the Canadian Forces Health Services Headquarters / Director Health Services Strategy.

09. The Commander Canadian Joint Operations Command (CJOC) is the approval authority for this publication.

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Chapter 1
Foundations of Health Services

General

0101. **Health Services** (HS) is defined as medical or dental services intended directly or indirectly to contribute to the health and well-being of patients or a population. Health services are not restricted to clinical, curative or preventive services, and include food inspection and environmental protection.[1] HS supports the operational mission through conservation of manpower, preservation of life, and minimization of residual physical and mental disabilities.

0102. This supporting HS doctrine is primarily designed for a Canadian Joint Operations Command (CJOC) led Joint Task Force (JTF)[2] on joint operations;[3] however, the concepts are also applicable to single service operations. Detailed single service doctrine is under development.

0103. With a view to improving interoperability with our principle allies, we have adopted NATO concepts and terminology where appropriate. Any substantial deviation from NATO doctrine is identified in the text.

Context

0104. **Strategic context**. The global security environment is increasingly characterized by complexity, uncertainty, instability and pervasive information. Recent global economic developments have resulted in a complex and vulnerable balance of dependencies. Environmental and resource constraints, including health risks, climate change, urbanization, water scarcity and increasing energy needs will further shape the future security environment.

0105. With a view to decreasing mortality and morbidity, and based on successes of recent operations, and rapidly changing clinical technology and procedures, there is an emphasis of bringing enhanced treatment capability to the patient. This places ever increasing clinical capabilities further forward in the battlespace than has been the norm until now. These capabilities include advanced damage control resuscitation, damage control surgery, and enhanced forward aeromedical evacuation capabilities. This is in line with the evidence-based changes being made by our NATO and Five Eyes partners.

0106. Forces are becoming smaller as fewer people produce more fighting power and individual personnel have highly specialized training; consequently, there is a larger loss of capability if an individual becomes a casualty.

0107. As globalisation and the media increase the public's "visibility" of operations, casualty management becomes all the more important. A pervasive global media ensures that conflicts are becoming more transparent and this creates risks for both military and political leaders. Adverse reporting over both the taking of casualties and any mismanagement of those casualties could dramatically influence political opinion and public support for operations. An effective health support system is one method of mitigating some of these risks.

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[1] Defence Terminology Bank (DTB), record 43636.
[2] DTB, record 31012. A temporary grouping of elements from more than one component, under one commander, formed for the purpose of carrying out a specific operation or mission. Note: Typical components are maritime, land, air, special operations and support.
[3] For information on joint operations see CFJP 3.0 *Operations*.

0108. **Operational context**. HS elements must have the ability to support the full spectrum of operations from large-scale peer-on-peer warfighting to stabilization, peace support, disaster relief, humanitarian assistance, and operations involving domestic aid to the civil authority. When authorized, the CAF may be deployed into challenging conditions to include:

a. regular or irregular threats;

b. multinational alliances or coalitions;

c. remote and austere locations with a high prevalence of health threats and risks;

d. high cyber threat against communications and information systems, and medical equipment;

e. extended and limited lines of communications;

f. extended periods in challenging climatic, geographic, socio-cultural, economic and political conditions;

g. degraded infrastructure;

h. non-linear and non-contiguous battlespace. Enemy combat operations in the friendly rear areas may interdict lines of communication and disrupt vital combat support and combat service support activities;

i. non-state paramilitary, terrorist, and criminal organizations targeting civilians as well as CAF and coalition forces;

j. wide availability of weapon systems with radically increased lethality;

k. the proliferation of unmanned aircraft systems for reconnaissance and attack by state and non-state actors;

l. pervasive globalized information and social media environment;

m. targeting of HS facilities and personnel from non-traditional adversaries who do not respect the Laws of Armed Conflict (LOAC);

n. little or no host nation support available;

o. dense urban areas with a large civilian population where a clear distinction between combatants and the civil population may not be possible. Military operations and engagements in an urban environment are likely to result in exceptional high casualty rates and a critical deterioration of public health related to collateral damage of health relevant infrastructure; and

p. in major joint operations highly trained host nation civilian medical personal may leave threatened areas which may lead to the burden of CAF medical personnel caring for civilian casualties.

0109. **Population at risk (PAR)**.[4] The traditional PAR that the Canadian Forces Health Services would expect to treat (i.e., CAF personnel) has changed in the modern battlespace. The PAR may include civilians in support of the CAF or coalition, as well as other government departments and agencies, and coalition military personnel. NATO and United Nation (UN)

[4] NATO*Term*, record 24624. A group of individuals exposed to conditions which may cause injury or illness.

expectations are that at levels above Role 1, nations are to treat patients from any other nation. See paragraphs 0235-0247 for information on possible additional PAR.

0110. **Health risk**.[5] The health risk is the composite of all ongoing or potential enemy actions and the occupational, environmental and epidemiological factors that could degrade the combat effectiveness of soldiers through wounding, injury or illness. It includes the following potential health threats and health hazards facing CAF personnel:[6]

Chemical	conventional chemical agent threats plus toxic industrial chemicals, riot control agents and chemical hazards derived from pharmaceuticals
Biological	live organisms, toxins and biological hazards deliberately employed to harm the PAR
Radiological	material or events that release ionizing (alpha, beta, gamma radiation and neutrons) and non-ionizing radiation (including directed energy weapons)
Nuclear	weapons or events that result in nuclear fission/fusion reactions
Explosive and ballistic	consequences of explosive activity on human bodies including gunshot wounds, indirect fire, improvised explosive devices, shells and bombs
Environmental and occupational	environmental conditions likely to cause harm such as heat, cold, dust, humidity, and altitude disruption of sanitation services/facilities (sewage and waste disposal) industrial noise
Endemic disease, flora and fauna	infectious diseases (biological agents of operational significance) that are not deliberately released but which pose a hazard to the health of the PAR epidemics foodborne, waterborne, arthropod borne, zoonotic vectors and breeding grounds for mosquitoes, etc toxic poisonous plants and bacteria poisonous reptiles, amphibians, arthropods, and animals
Traumatic	non-battle injuries such as vehicle accidents, crush injuries, sports injuries
Psychological	operational tempo, nature and the duration of deployment, status of training (including resiliency training), wearing of personal protective equipment, home front issues, physical health and occupational stressors[7]

0111. **Emerging technology**. Technological advances in health care, clinical equipment, and supporting capabilities (e.g., remotely piloted ground and air evacuation assets, 3D printers, artificial intelligence to support operational and clinical decision making) increase the chances of survival in the modern battlespace. The pace of change requires constant evaluation to determine the impact on training, procedures, and procurement.

[5] Health risk - The combination of the probability of an incident and any health consequences it may have (NATO*Term*, record 38847).

[6] Health threat - A circumstance that can cause harm to health and that is linked to an adversary's intent and/or capability, as well as a target's vulnerability (NATO*Term* 38848). Health hazard - Any element, within a defined space and time, with the potential to cause harm to health (NATO*Term*, record 38849).

[7] See AMedP-8.6 *Forward Mental Healthcare* for additional information.

0112. **End-to-end HS system**. On every operation a comprehensive end-to-end HS system must be planned to account for every CAF member in every location. Treatment, evacuation and preventive medicine services may be provided solely by, or through a combination of, CAF resources, bilateral or multinational arrangements, host nation, contractor, or International Organizations (e.g., on a United Nations mission).

Principles of Medical Support

0113. HS strives to fulfil the laws, rules, and requirements set out in Canadian civilian practice or by international organizations; however, operational circumstances may limit what is achievable in support of deployed forces, requiring the acceptance of risk. The following paragraphs provide a set of fundamental principles to deal with this challenge during operations.

0114. **The primacy of clinical need**. The clinical need of the patient is the principal factor governing the priority, timing and means of medical and dental care and evacuation afforded to a patient. The medical requirements then need to be balanced with the operational objectives and their possible impact on the accomplishment of the mission.

0115. **Best health care practices**. Accepting the challenges associated with conducting health care in an operational environment, every effort should be made to ensure that health care is based on accepted best practices. Compliance with this principle is ensured by a quality assurance system to achieve continuous improvement in healthcare support on operations.

0116. **Timeliness of treatment**. Time is a fundamental factor in the effectiveness of health care and will affect the general outcome, including the risk of death, the speed of recovery, and the level of residual disability. Evidence-based treatment and evacuation timelines in operations have been incorporated as the basis for medical doctrine.

0117. **Continuity of care**.[8] A medical support principle according to which a patient in transit through various medical treatment facilities should be given care that is relevant, continuous and progressive, irrespective of the organization providing the resources.[9] The patient's clinical condition is the key factor governing the timing, means, and destination of their evacuation. Recovery will depend on the medical attention and quality of care provided throughout the chain of medical evacuation (MEDEVAC) and treatment. The patient's condition and the operating environment, as well as evacuation and treatment capacities, might require bypassing the nearest medical treatment facility (MTF). It is also important that the medical records follow the patient.

0118. **The universal provision of acute emergency care**. The operational commander has the authority to limit the availability of military medical support to third parties; however, acute emergency treatment of life-threatening conditions must not normally be denied within the capability/capacity of deployed HS resources.

0119. **Compliance with the law of armed conflict (LOAC)**. The CAF must comply with Canadian and international law, including international humanitarian law, during all deployed operations. In addition, they may have to comply with the laws of the territory in which operations take place. The conduct of HS activities will comply with the rules and spirit laid

[8] Often referred to as continuum of care.
[9] DTB, record 694336.

down by the LOAC.[10] In circumstances where specific provisions of these laws or conventions may not be directly applicable, the principles expressed in the LOAC still define the minimum acceptable standard. While not limited to the framework of the established mission population at risk, HS must bear in mind that all sick, injured, shipwrecked, or wounded shall be treated—without discrimination—solely on the basis of clinical need and the availability of HS resources. This could include enemy wounded, detainees, prisoners of war, etc. CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels* provides greater details on the HS obligations with respect to LOAC.[11] Chapter 2 provides further detail.

0120. **Health care ethics and legal constraints**. While all military personnel are bound by Canadian laws, CAF regulations, orders, Code of Service Discipline, and Code of Ethics, HS personnel have additional individual responsibilities to the ethical and legal requirements of their own clinical profession.

0121. **Privacy and medical confidentiality**. Personal information is not to be communicated to any individual or organisation that does not have a medical need-to-know or without legal authority. Health information is communicated to individuals or organizations with due consideration to Federal *Privacy Act* and related CF H Svcs Gp policies, orders and instructions.

0122. **Patient welfare**. The welfare of patients involves more than just HS. Other military staff functions such as J1 (Personnel), J4 (Logistics), and the chain of command have important responsibilities (e.g. communication with command, staff, and relatives for the management of personal affairs, and social and spiritual welfare) regarding the general welfare of patients.

0123. **Compatibility of the HS system**. Adequate HS support is a fundamental element of any force development/generation/employment process. HS elements need to be as well prepared, equipped, trained, and readily available for deployment as the forces they support. HS support must be task-tailored to match the supported force in a way that is attuned to the operating environment.

0124. **Proximity**. Medical care must be provided as soon as possible after the injury to reduce morbidity and mortality. Medical personnel and MTFs must be located as far forward as tactically possible, yet must not be positioned so far forward as to interfere with operations or needlessly be subject to enemy harassment.

0125. **Mobility**. Medical units must maintain close contact with the manoeuvering elements they support. In particular, ground ambulances require the same all-terrain capability, armoured protection, and communication capability as the supported force. Generally, increasing the clinical capability and capacity of a MTF decreases its mobility.

[10] In this context, LOAC includes The Hague and Geneva conventions, applicable weapons conventions, and international customary law (which are laws applicable to all States). The Geneva Conventions of 1949 and much of their Additional Protocols are widely accepted as customary international law.
[11] See CFHSP-1 *Health Services Planning* Annex E-Law of Armed Conflict.

Responsibility for the Health of the Force

0126. **Responsibilities of the commander**.[12] The duty of care for all personnel within a formation/unit rests with the commander/commanding officer (CO). This encompasses the full spectrum of HS issues to include:

a. pre-deployment medical, dental, and mental health readiness;

b. activation and use of treatment and MEDEVAC assets from point of injury/illness to final disposition in Canada;

c. implement and oversee recommendations of the medical staff on issues like medical education and training, immunization, disease prevention and control; and

d. determine the camouflage policy for medical elements [*see* Chapter 2].

0127. The Canadian Commander in a theatre has the additional national responsibilities to:[13]

a. determine the medical rules of eligibility and the theatre patient return policy [*see* Chapter 2]; and

b. authorize the use of chemical, biological, radiological, nuclear medical counter-measures including the administration of prophylactics.

0128. Commanders at all levels, and their staff, are obligated to consider the impact of casualties on the operations plan, and how the resultant sick and injured are to be provided health care and to be evacuated. Consequently, commanders need the support of a dedicated HS staff sufficient in number, training, and experience to plan and execute HS operations on their behalf. The senior medical authority must have unimpeded access to the commander to ensure timely intervention in all medical matters that require the commander's attention, decision or action.

0129. A commander who, because of military necessity has decided to abandon patients, is obligated, as far as military considerations permit, to leave sufficient and adequate HS personnel and medical and dental materiel for the care of the patients until the opposing forces assume responsibility for their care.[14]

0130. Commanders at all levels must plan **mass casualty (MASCAL)**[15] incident response. A MASCAL incident may have a significant impact on current operations up to a forced break in the conduct of operations and in most cases needs to be managed top down. It requires cross-functional cooperation, support from superior headquarters and their resources and a single command authority, which in most cases will be executed by the commander of the affected force. See Allied Medical Publication (AMedP)-1.10 *Medical Aspects in the Management of a Major Incident/Mass Casualty Situation* for more information.

0131. Military leaders at all levels have a key role in sustaining the mental readiness of service members under their command and play an important part in maintaining morale on the home front for military families. AMedP-8.10, *A Psychological Guide for Leaders across the Deployment Cycle* provides military leaders with information and practical strategies for dealing

[12] Throughout this publication the use of the term "commander" refers to the operational commander, unless otherwise specified as the "HS commander".
[13] In Canadian terms – the Joint Task Force Commander.
[14] CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels*, Article 913.
[15] Any number of casualties produced in a relatively short period of time that overwhelms the available medical and logistic support capabilities. (NATO*Term*, record 9433)

with stress and the provision of psychological support in order to enhance unit effectiveness in modern military operations.

0132. **Responsibility of medical officers**. In accordance with QR&O 34.011 *Responsibilities of Medical Officers*, "The senior medical officer at all levels of command is the responsible adviser to the senior officer exercising the function of command or executive authority on all matters pertaining to the health and physical efficiency of all personnel under his [*sic*] jurisdiction."

0133. **Responsibilities of dental officers**. In accordance with QR&O 35.02 *Responsibilities of Dental Officers*, "The senior dental officer at all levels of command is the responsible adviser to the senior officer exercising the function of command or executive authority on all matters pertaining to the dental health of all personnel under his [*sic*] jurisdiction."

0134. **Military training**. Operational and HS commanders must ensure that HS personnel receive the same military training as those they support, e.g., parachute, mountain warfare, basic winter warfare, hoist training, etc.

Maintenance of Clinical Competency

0135. Combat trauma patients pose the most clinically demanding challenges for medical personnel. Damage control resuscitation and damage control surgery require a high level of clinical competency which must be maintained as a matter of routine. It cannot be treated as just-in-time pre-deployment training. Base and Wing clinics do not offer the opportunity to practice trauma skills. To ensure they are clinically competent, trauma and surgical teams are employed in civilian hospitals on a regular basis.

Components of Deployed Health Services

0136. Deployed HS capabilities must correspond to the mission, strength, and composition of the force they support and the assessed environmental and health risks the deployed force will face. Deployed HS comprises the following components:

a. **Command and Control (C2)**. In addition to operational C2, HS has some unique clinical professional-technical control aspects. See Chapter 3;

b. **Communications and Information Management**. The effective C2 of a HS system requires a capability to exchange information to and from the furthest forward medical personnel through all levels of command in order to seek professional technical guidance and effect timely medical evacuation. See Chapter 4;

c. **Force Health Protection (FHP)**. The prevention of illness and injuries is the most effective means of maintaining the health of the force. FHP includes preventive medicine as well as medical intelligence. See Chapter 5;

d. **Military Health Care (MHC)**. MHC focusses on medical, dental, and mental health treatment. It includes the roles of medical care and medical treatment facilities. See Chapter 6;

e. **Medical Evacuation (MEDEVAC)**. To reduce mortality and morbidity an effective MEDEVAC system is required from the point of injury all the way to strategic evacuation to Canada. See Chapter 7; and

f. **Health Services Logistics**.[16] HS equipment, supplies, and pharmaceuticals have some unique handling requirements, and are governed by some LOAC rules. See Chapter 8.

[16] NATO uses the term Medical Logistics.

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Chapter 2
Planning Considerations for Deployed Health Care

Introduction

0201. This chapter identifies some key considerations for command, operations, and HS staff when planning HS for deployed operations. Greater detail is provided in CFHSP-1 *Health Services Planning*.

Health Services Planning

0202. The purpose of HS operations planning is to support the accomplishment of the mission by identifying HS capability, capacity, mobility, sustainability, and infrastructure necessary for the operation.

0203. **The Health Services contribution to the operations planning process (OPP)**.[17] For most CAF operations, the operational-level planning organization will be CJOC. HS staff supporting CJOC will participate in both the operations and support planning groups to ensure that the HS plan is consistent with the operations and support plans. The nature of the HS contribution is twofold. First is the input of HS expertise to the general planning process. Second is the development of a HS concept and HS support plan for the operation.

0204. HS does not normally conduct OPP on its own. Rather, it is part of the operational commander's OPP in a support function. The HS staff must be intimately involved in the overall planning as other principles' plans affect HS planning, and HS factors may impact others' planning. HS planners must synchronize their support plan with all other elements [*see* Chapter 3 for the HS linkages to other staff]. CFHSP-1 *Health Services Planning* provides guidance on how HS planners participate in OPP.

0205. **Tactical-Level Health Service planning**. The commander's tactical plan must be considered from a health perspective to determine the location of areas of casualty densities and the best placement of MTFs and MEDEVAC assets.

0206. **The Health Services estimate**. The purpose of the HS estimate is to gauge the effect of friendly, enemy, natural and environmental actions on the JTF to identify the concept of HS support including appropriate preventive measures and HS force capabilities required for the mission. It is prepared concurrently with the work on the overall mission analysis and estimate in unison with other staffs (Personnel, Intelligence, Operations, Logistics, Plans, Communications and Information System, Civil-Military Cooperation, etc.). The HS estimate is detailed in CFHSP-1 *Health Services Planning*.

0207. **Medical Intelligence**. An essential requirement of the decision-making process is the availability of reliable, timely, specific, and applicable medical intelligence, from the initial planning stage, throughout the operation, and after deployment. Medical intelligence includes the assessment of hazards of operational concern such as infectious diseases, environmental and industrial health issues, other public health events, chemical, biological, radiological, and nuclear threats, as well as an assessment of the HS capabilities of adversaries, host nation, and other civil actors. Medical intelligence contributes to the intelligence preparation of the operating environment and the overall force-protection concept. See Chapter 5, Section III for more information on medical intelligence.

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[17] See CFJP 5-0 *The Canadian Forces Operational Planning Process*.

0208. **External support arrangements**. HS is a national responsibility. Arrangements with participating allied forces, the host nation, or third-party contractor may be implemented to supplement national capabilities providing they meet Canadian standards of care where applicable. Such arrangements must be approved by the Director Health Services Operations (DHSO).

Treatment Timelines

0209. To achieve the best possible outcome, appropriate treatment should be provided as soon as possible in every case of medical emergency. Trauma research demonstrates that the risk of death or permanent impairment can be reduced significantly if injured or wounded personnel receive specific trauma treatment within certain timelines. Similarly, for medical emergencies not related to trauma, clinical evidence emphasizes appropriate treatment within certain timelines after which the outcome of treatment will rapidly deteriorate. Based on this clinical evidence HS aims to provide appropriate life, limb, and function[18] saving treatment, wherever practicable, within specific **clinical timelines** known as the **10-1-2(+2) Timeline**. It consists of:

a. **Advanced first aid** within **10 minutes** after injury, wounding, or onset of acute symptoms consisting of immediate life-saving measures applied by personnel trained in tactical combat casualty care;

b. **Damage control resuscitation (DCR)**[19] within **1 hour** after injury, wounding, or onset of acute symptoms consisting of DCR measures and prehospital and advanced life support commenced by medical professionals and/or physicians trained in emergency care;

c. **Damage control surgery (DCS)**[20] optimally within **1 hour, but not later than 2 hours** after injury or wounding consisting of procedures where the completeness of the immediate surgical repair might be sacrificed to achieve hemorrhage and contamination control and restore circulation to stabilize the patient's condition for further evacuation and treatment; and

d. Further surgical, resuscitative, diagnostic and specialist care capabilities necessary to stabilize the patient for strategic evacuation should be available within **2 hours** of tactical evacuation following initial DCS. This is conducted at Role 2 Enhanced and Role 3 MTFs.

0210. The 10-1-2(+2) Timeline identifies that, while it remains desirable for a patient to receive DCS within 1 hour of wounding, this may not always be possible. The tactical situation or resource limitations may not allow surgical capabilities too far forward. Under these circumstances, pushing a DCR capability forward is a mitigation strategy.

0211. **Risk acceptance**. The treatment timelines are a tool to assist operational commanders in assessing risk and planning medical support to their tactical actions. To make an informed decision, the commander must understand the **likelihood** and **impact** of injuries/illnesses

[18] Including functions such as eye-sight, use of extremities, etc.

[19] A systematic approach to major exsanguinating trauma incorporating prioritized non-surgical interventions to decrease mortality and morbidity. This is accomplished through aggressive hemorrhage control and blood transfusion.

[20] Emergency surgical procedures and treatment to stabilize casualties, to save life, limb, or function, including rapid initial control of hemorrhage and contamination, temporary closure, and resuscitation. DCS attends to immediately life-threatening conditions.

occurring (informed by both operational and medical personnel) and set that against the tactical **necessity** of undertaking the activity in both time and space. With a view to achieving the treatment timelines, mitigation strategies may include the forward placement of additional medical treatment and evacuation assets or temporarily prioritizing the use of helicopters for MEDEVAC during expected periods of high casualties.

Medical Lines of Effort

0212. On some missions there may be multiple medical lines of effort, including support to CAF and other entitled personnel, mentoring or training of host nation personnel, and humanitarian assistance. To avoid competing priorities, different personnel should be used for each line of effort. For example, on a CJOC mission with a primary goal to train host nation military forces, one group of CAF HS personnel are assigned to provide healthcare to all CAF and entitled personnel, and another group is assigned as trainers/mentors to the host nation medical element.

Medical Rules of Eligibility (MRoE)

0213. CAF HS elements are generally deployed to provide health care to CAF personnel. There are increasing circumstances where CAF HS will be expected to provide care to non-CAF personnel. The MRoE details the circumstances where CAF HS can provide health care to non-CAF personnel.

0214. MRoE must clearly state the level of eligibility for treatment and evacuation of the following non-exhaustive list of categories of personnel:

a. Department of National Defence civilians, other government departments or agencies, and contractors;

b. foreign force military personnel (allies, coalition, host nation);

c. third-country nationals that may be supporting the operation such as manual labourers, contractors, and private military-and-security companies who may be entitled (by agreement) to health care;

d. host-nation citizens, with consideration given to host-nation treatment standards and the subsequent requirements for follow up or longer-term treatment; and

e. refugees and internally displaced persons.

0215. MRoE are mission-specific and are compiled during the operations planning process and are detailed in the operations order. They should be guided by operational requirements as well as by ethical and legal principles and ensure that HS can provide appropriate treatment and care when it is needed. MRoE are recommended by the force employer (usually CJOC) with advice from the Surgeon General, Strategic Joint Staff, and the Chief of the Defence Staff and are approved by the Minister of National Defence, or other appropriate authority. Planners must seek legal advice when developing MRoE.

0216. During multinational operations, the theatre-wide coalition MRoE may differ from CAF MRoE. The differences have to be accounted for when developing the CAF HS plan.

Law of Armed Conflict (LOAC)

0217. **Obligations**. Medical personnel, facilities, vehicles and equipment are governed by specific requirements of the LOAC.[21] Commanders at all levels and medical personnel must be aware of their obligations. CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels* and CFHSP-1 *Health Services Planning* Annex E provide more information on LOAC. Also see the articles below on Health Care to Prisoners of War, Detainees, and child soldiers.

0218. **Use of the distinctive emblem (Red Cross, Red Crescent, Red Crystal)**.[22] Medical personnel, hospital ships, medical establishments and units, medical aircraft, and medical transports, including ambulances, are entitled to protection because of the function they fulfil. The purpose of the distinctive emblem is to provide a means to identify objects and persons entitled to special protection. The object and personnel are entitled to protection whether or not they display the distinctive emblem. If they do not display the distinctive emblem, it is more likely they will be incorrectly identified as legitimate military targets and attacked.

0219. The displaying of the distinctive emblem is at the direction of the operational commander. Consideration should be made to optimize visibility of the distinctive emblem from all vantage points by both day and night.

Figure 2-1. Distinctive Emblems

0220. **Identification of medical personnel**. HS personnel are authorized to wear on their left arm an armlet bearing the distinctive emblem (Red Cross), issued and stamped by the CAF. They are also authorized to carry an official identity card, the NDI 60 – Geneva Convention Identification Card.

0221. **Identification of medical units, facilities and vehicles**. Medical units, facilities and vehicles may be distinguished by the conspicuous display of the Red Cross emblem on a white background.[23] All medical facilities and vehicles are protected by the LOAC and may display the Red Cross even if not engaged in direct patient care, (e.g.) headquarters and service support shelters and vehicles.

0222. **Defense of medical units and self-defense by medical personnel**. A medical unit is granted a privileged status under the LOAC. This status is based on the view that medical personnel are not combatants and that their role in the combat area is exclusively a humanitarian

[21] In order to align with the LOAC the term “medical” is used rather than “health services”.
[22] CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels*, 915.
[23] Some nations use the Red Crescent, Red Diamond, or Red Star of David.

one. In recognition of the necessity of self-defense, however, medical personnel may be armed for their own defense or for the protection of the wounded and sick under their charge. To retain this privileged status, they must refrain from all aggressive action and may only employ their weapons if attacked in violation of the Conventions.[24] See CFHSP-1 *Health Services Planning* Annex E.

0223. **Camouflage**.[25] The responsible authorities (usually a formation commander) shall ensure that medical units and establishments are, as far as military considerations permit, situated in a manner that attacks against military objectives cannot imperil their safety, and their distinctive medical emblems are clearly visible.[26]

0224. The marking of medical units, facilities and vehicles in conjunction with the use of camouflage is incompatible and should not be attempted concurrently. When the use of highly visible and prominently displayed medical emblems could compromise military operations, camouflage of medical personnel and/or facilities may be ordered by a commander (normally at the formation level) with the necessary insight to balance operational concerns with the protection of medical facilities and personnel.

0225. Such a decision could be made due to deliberate targeting by the enemy, as part of the deception plan, or in an attempt to deny the enemy intelligence as to future actions of the fighting force as part of the counter-intelligence plan and/or operational security plan. In such circumstances, the camouflage of medical units will follow that of the supported units.[27] See B-GL-364-001/FP-001 *Camouflage and Concealment*.

0226. Since the camouflage may have the effect of depriving the sick and injured of the protection to which they are entitled under LOAC, any order to conceal the distinctive emblem should be given in exceptional circumstances, be temporary in nature, and rescinded as soon as circumstances permit.

Multinational Operations

0227. Canada may participate in Alliance or coalition operations with various nations providing different elements of a comprehensive end-to-end medical system. Canada could be a lead nation or contributing nation to different elements. The existence of national differences such as varying clinical protocols, different languages, and legal restrictions, means that achieving multinational cooperation in practice can be complex and challenging. Planning considerations for multinational medical solutions are found in CFHSP-1 *Health Services Planning* and AJMedP-9 *Multinational Medical Support.*

Theatre Patient Return Policy

0228. **Theatre patient return policy**.[28] A command decision, indicating the maximum period of non-effectiveness that patients may be planned to be held for treatment within the area of operation. Patients who, in the opinion of the responsible medical officer, cannot be returned to duty status within the period prescribed are evacuated by the first available means, provided the

[24] CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels*, 447.
[25] CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels*, article 922.
[26] Allied Tactical Publication (ATP) 79, *Orders for the Camouflage of Protective Medical Emblems on Land in Tactical Operations*
[27] ATP 79 *Orders for the Camouflage of Protective Medical Emblems on Land in Tactical Operations*
[28] Formerly known as the evacuation policy or holding policy, NATO has changed it to theatre patient return policy.

travel involved will not aggravate their state.[29] On an individual patient basis the senior health authority for the mission may advise the commander about the clinical aspects of waiving the requirement.

0229. The theatre patient return policy is mission-dependent and is established by the Chief of the Defence Staff in consultation with the JTF Commander, Commander CJOC, Commander RCAF, and the Surgeon General.

0230. The theatre patient return policy will be influenced by the availability of assets, constraints on movement, particular operational imperatives, distances, weather, and topography. It will also be affected by factors such as welfare considerations, public expectations, national policy, and the cost of strategic evacuation.

0231. The theatre patient return policy should be dynamic and responsive to changes in the operational situation. It should ensure that:

a. appropriate medical capacities and capabilities can be sustained and are flexible enough to meet operational challenges, such as fluctuations in casualty numbers due to enemy action;

b. patients with minor or easily resolved medical concerns are managed at the lowest appropriate level of care facilitating their return to duty in a reasonable time;

c. patients who have communicable illnesses are not moved across international boundaries without due consideration to the risks and international regulations; and

d. seriously ill and injured patients receive timely and appropriate treatment to stabilize and prepare them for strategic evacuation.

0232. **Shorter patient return policy**. A shorter patient return policy results in fewer hospital beds required in the theatre, but a greater demand for inter-theatre evacuation resources.

0233. **Longer patient return policy**. A longer patient return policy results in a greater accumulation of patients and a demand for a larger HS infrastructure in theatre, to include medical specialty augmentation. It increases the requirements for HS logistics (medical supplies, equipment, and equipment maintenance) and non-medical logistics support.

0234. **Multinational operations**. In multinational missions the coalition-wide theatre patient return policy may differ from the CAF policy. If Canada is the lead nation of a multinational medical unit and the coalition's policy is to retain personnel in theatre longer than the Canadian policy there may be a requirement for additional resources in order to hold non-CAF patients.

Health Care to Contractors

0235. The use of contractors on operations is likely to increase in the future. Current CAF HS capability is designed to support an essentially young and fit military. Contractors do not necessarily have to maintain mandated fitness standards nor are they subject to age restrictions. This potentially places an additional burden on HS. Entitlement to care will be detailed in the MRoE and may involve the requirement to cost-capture healthcare provided.

[29] NATO*Term*, record 27528.

Health Care to Prisoners of War and Detainees

0236. Health care to any prisoner of war (PW) or person detained (detainee) by CAF must be consistent with medical/dental ethics, applicable law (domestic, international, and potentially host-nation law), and also international agreements and arrangements. International humanitarian law requires that PWs and detainees be provided the health care and attention required by their condition and that they be treated, evacuated, and discharged from medical care using the same clinical criteria that are applied to CAF personnel.

0237. CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels* and CFJP 3-14 *Prisoners of War and Detainees* provides information on the obligations regarding the provision of healthcare and evacuation of PWs from time of capture up to and including when the PWs are in a PW facility. They include information on the repatriation of sick and wounded PWs.

0238. The basic principles of the LOAC must be applied, as a minimum, by all members of the CAF taking part in all Canadian military operations. Although the PW provisions only pertain to certain people during an international armed conflict, it is CAF policy that all detainees be treated to the standard required for PWs, as this is the highest standard required under international humanitarian law.

0239. PWs and detainees of the CAF shall be treated humanely in all circumstances. Their health care shall be consistent with the following principles:

a. their physical health, mental health, and the integrity of their persons are not to be endangered;

b. all necessary sanitary measures are to be taken to ensure the cleanliness and healthfulness of detention facilities and to prevent epidemics;

c. as far as necessary, they are to be provided with an adequate and, if possible, culturally appropriate diet;

d. the state of their general health is to be examined by medical personnel as soon as possible after deprivation of liberty and thereafter at least once a month;

e. they are not to be prevented from presenting themselves to the medical authorities for examination at any time;

f. they should be supplied with any apparatus necessary for their maintenance in good health, such as spectacles, dentures, and other prostheses; and

g. where their state of health requires it, they are to be transferred to specialized establishments for special treatment or surgery.

0240. During armed conflict, captured enemy medical facilities, medical materiel, and retained enemy HS personnel may be used to provide health care to PWs and detainees. This can contribute to the medical management of these persons, particularly where there would otherwise be language or cultural challenges. It can also be useful where the retained enemy medical personnel have a particular expertise of endemic disease not normally seen in the CAF.

0241. It can be difficult to calculate the holding capacity required for PWs and detainees because they may not be subject to evacuation policies and may not have ready access to definitive Role 4 care capabilities. Therefore consideration should be given during planning to determine when additional MTF holding capacities may be required. CAF may also wish to

cooperate with other nations to provide centralized treatment facilities for PWs and detainees, although Canada may retain legal responsibility for the treatment of any person transferred to the custody of another nation.

0242. HS staffs need to be involved in the planning and operation of detention facilities, particularly when the persons held in them may pose a risk to those guarding them from bad hygiene practices or endemic disease. The medical authorities will need to develop a preventive medicine strategy, ensure the provision of primary health care services within the facility and ensure that the guarding force has adequate medical support.

0243. HS personnel are not used to guard prisoners or detainees.[30] This includes within MTFs. The capturing unit must arrange for security of the prisoners and detainees.

0244. Planning considerations can be found in ABCANZ Publication 365, *Health Support to Detainee Operations* and CFJP 3-14 *Prisoners of War and Detainees*.

Health Care for Non-combatants

0245. The operational commander may authorize, but also limit, health care to non-combatants based on HS capacities, the workload of HS elements, and the availability of HS supplies. Health care to non-combatants should:

a. provide emergency care up to life, limb or function preserving surgery to all patients that require it only restricted by the MTF's means, capabilities and capacities and its primary task to provide medical support to the military population at risk;

b. limit periods of hospitalization of patients to the minimum necessary to ensure an effective capacity to accept and treat new patients is maintained;

c. adapt therapeutic protocols to the local health situation. It may not be appropriate to undertake a course of treatment if the host nation's clinical infrastructure does not have the capability to successfully complete the treatment after discharge from the military medical system;

d. respect cultural and religious practices and preferences; and

e. return the lead for provision of treatment to the host nations' health care system as early as possible.

Health Care for the Affected Population on Humanitarian Assistance or Disaster Relief Operations

0246. On humanitarian assistance and disaster relief operations CAF HS will provide health care to the affected population. There is a requirement for different clinical skill sets, supplies, and equipment to care for this diverse population, e.g., paediatrics, geriatrics, etc. It also requires an awareness of the cultural and religious norms of the affected population. See CFJP 3-4.1 *Humanitarian Operations and Disaster Relief Operations*[31] and CFHSP-1 *Health Services Planning* for planning considerations.

[30] CFJP 3-14 *Prisoners of War and Detainees*, Annex B.
[31] Also see AJMedP-6 *Allied Joint Civil-Military Medical Interface Doctrine*.

Health Care for Child Soldiers

0247. An enemy or belligerent's use of child soldiers must be considered in order to determine potential resource requirements for their health care (clinical skillsets, equipment, and supplies), and the need to separate them from the general population of detainees or prisoners of war. Legal and military police advice is required. See Joint Doctrine Note 2017-01 *Child Soldiers* for planning considerations.

Medical Support in a Chemical, Biological, Radiological, and Nuclear Environment

0248. Details on planning and conducting medical support in a CBRN environment are found in the AJMedP-7 *Allied Joint Medical Doctrine for Support to CBRN Defensive Operations*[32] and its numerous subordinate standards related documents.

0249. **Challenges to medical operations**. CBRN incidents pose serious challenges to military operations worldwide and include the employment of CBRN weapons as well as the accidental or deliberate release of chemical and biological agents, toxic industrial materials, biological pathogens, and radioactive material. CBRN incidents can vary in magnitude from one affected person to major incidents affecting entire formations and the civil population.

0250. Commanders must ensure a plan is in place to manage and treat casualties in all phases of a CBRN incident. The widespread disruption and destruction that may accompany a CBRN incident will require specialized patient handling and will further challenge HS capabilities and resources.

0251. Planning considerations include: force protection, clean/dirty evacuation route selection, and the management of medical and support capabilities, to include shelter, food, water, environmental and occupational health, medical surveillance, medical prophylaxis, medical pre-treatments, immunizations, post-exposure therapeutics, antidotes, and fluids.

Capacity Building, Training and Mentoring of Host Nation Health Services

0252. Increasingly CAF HS personnel are tasked to provide training and mentoring of host nation military medical personnel to allow fragile states to develop their capacity. Elements assigned to this task should be separate from those who are primarily responsible to provide health care to CAF personnel.

0253. For guidance and planning considerations when CAF HS elements conduct training or mentoring tasks see B-GL-322-010/FP-001 *Stability Activities and Tasks* *and* B-GL-323-000/FP-001 *Security Force Capacity Building* (draft) for more information.[33]

Safe Schools

0254. Canada has endorsed the UN's *Safe Schools Declaration* and the associated *Guidelines for Protecting Schools and Universities from Military Use during Armed Conflict*. HS planners must incorporate the *Declaration* and *Guidelines* when considering using a school as a temporary MTF. See *Chief of the Defence Staff Directive for the Implementation of the Safe Schools Declaration* for more information.

[32] STANAGs, AJMedPs and AMedPs are found on the NATO Standardization Organization (NSO) public website.
[33] This publication is in draft but has been authorised by the Canadian Army for use in training and operations.

Gender Based Analysis Plus (GBA+)

0255. As directed in the *Chief of the Defence staff (CDS) Directive for Integrating UNSCR 1325 and Related Resolutions into CAF Planning and Operations* GBA+ considerations must be a part of every operations planning cycle. See *Integrating Gender Perspectives in Operations (A Gender Aide-memoire for the Canadian Armed Forces)* for planning considerations.

0256. GBA+ will determine any gender based issues regarding healthcare to CAF personnel. This may impact clinical equipment, medications, clinical skills, and training.[34]

0257. As part of the overall cultural analysis conducted for the mission GBA+ may identify a potential PAR that will require health care. There may be legal and force protection considerations to be addressed. GBA+ analysis can help identify local national, cultural and religious sensitivities for the clinical treatment of women. It can identify medical response obligations to conflict-related sexual and gender-based violence (e.g., conflicts where adversaries use rape as a weapon of war), and to sexual exploitation and abuse by coalition forces. For PWs/detainees segregation may be required based on gender.

Handling of Human Remains

0258. The HS system is not responsible for the collection and burial of the deceased, except for its own dead and those who die while under its care. Mortuary affairs is a Logistics function.

0259. A physician will produce the death certificate, DND 2317 *Canadian Forces Medical Certificate of Death*.

0260. For low intensity operations, *CDIO 1000 series – Section 4 – Personnel Services*, Article 1.4-4 Casualty Management provides guidance on the handling of human remains. If there is a requirement for emergency burials on medium or high intensity operations see B-GL-334-001/FP-001 *Standing Operating Procedures (SOP) For Land Operations* SOP 504 for procedures.

0261. See CFJP 3-8.1 *Chemical, Biological, Radiological and Nuclear Defense Operations* and AMedP-7.1 *Medical Management of CBRN Casualties* for additional direction regarding handling of contaminated human remains.

[34] See AMedP-8.9 *Minimum Requirements for Medical Care of Women in Joint/Combined Operations*.

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Chapter 3
Command and Control

Section I – General

0301. Owing to the complex and highly specialized nature of HS and limited HS resources Command and Control (C2) must be exercised at the highest level possible and by those thoroughly versed in both the requirements of health care and operations. A dedicated and structured C2 system is the essential foundation of an efficient HS support structure. This system, supported by a reliable and secure communications and information management system, must be capable of planning, executing, controlling, supporting, and auditing the full spectrum of HS functions. The HS command system should seamlessly provide all resources required to support treatment, evacuation and flow of information from initial point of wounding, injury, or sickness through evacuation to definitive treatment and final disposition.

0302. To maximise the effects of limited resources all deployed HS elements are normally assigned to a single HS commander. Where centralization is not possible, the clinical governance and professional technical control arrangements must be identified in the operational order.

0303. HS C2 should be organized such that each operational and tactical level commander, down to unit level has a supporting HS commander or advisor. The HS commander and advisor may not be the same individual (i.e. only clinicians can fill a clinical advisor function and provide direction and oversight on clinical care). Regardless of the command relationship, the senior medical authority must have direct access to the supported commander for clinical advice.[35]

Section II – Operational Command and Control of Health Services

Introduction

0304. CF H Svcs Gp is a component of Military Personnel Command; however, Commander CF H Svcs Gp retains the responsibility for all aspects of HS force generation.

0305. **Task Tailoring**. The HS element in support of a CAF mission is task-tailored for each mission and may vary in size from a single person to multiple HS units (HSU) or an HS formation. The size, scope, and command relationships of the HS element are dependent on the type and size of mission and are determined during the operations planning process.

Command and Control Relationships

0306. The following are the usual C2 relationships for HS elements:[36]

a. **Domestic operations**. HS is provided by formed or composite units force generated from the CF H Svcs Gp and allocated under operational command (OPCOM)[37] to Commander CJOC for force employment. While deployed on domestic operations, HS personnel will be allocated under operational control (OPCON)[38] to the Regional JTF commander;[39]

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[35] QR&O 34.011, *Responsibilities of Medical Officers* and QR&O 35.02, *Responsibilities of Dental Officers.*
[36] Joint Doctrine Note 02-0214 *Command and Control of Joint Operations*.
[37] See Glossary for definition.
[38] See Glossary for definition.
[39] CJOC *Standing Operations Order for Domestic Operations*.

b. **Deployed operations**. CAF HS capabilities supporting contingency operations are usually assigned OPCOM to the Commander CJOC or Commander Canadian Special Operations Command (CANSOFCOM), and in turn assigned OPCOM to the JTF commander;

c. **HS personnel onboard ships or submarines**. HS personnel are allocated OPCOM to the ship;

d. **HS personnel assigned to a special operations unit**. Through CANSOFCOM, HS personnel are allocated OPCOM to special operations units; and

e. **HS personnel assigned to medical intelligence**. The production and delivery of Medical Intelligence is the responsibility of Commander Canadian Forces Intelligence Command (CFINTCOM). Commander CF H Svcs Gp is responsible for assigning HS personnel OPCON to CFINTCOM in order to fulfill its mandate.

0307. There is no set C2 structure for large (i.e. Division or higher) or complex (separate land, air, and maritime components, or multinational) missions. It will be established during the OPP and must account for the composition of the combined joint task force (e.g., air, land, maritime, special operation, and support component commands) and any multinational HS C2 requirements during combined operations.[40]

0308. **Command authority regarding treatment of patients**. In accordance with QR&O 3.33 *Command in the Canadian Forces Medical Services*, "No officer who is not a medical officer shall exercise command over a medical officer in respect of his [*sic*] treatment of a patient."

Clinical Professional and Technical Control

0309. Clinical professional/technical (prof/tech) control refers to all aspects of the provision of clinical care. It includes oversight, clinical standards and policies on treatment, and authorization and direction to health care providers in the course of providing care.

0310. **Health Care Professional Technical Authority**. The Surgeon General is responsible for strategic-level health care policy and advice, and prof/tech control of CAF HS.[41]

0311. **Medical**. The CAF medical prof/tech network authorities and responsibilities are derived from the Surgeon General and follow a concept of centralized control and decentralized execution. The Deputy Surgeon General coordinates the development of clinical standards guidelines and strategic direction for military clinical health care (less those delegated to the Aerospace Medical Authority). The Deputy Surgeon General chairs the Clinical Council which makes recommendations on these matters to the Surgeon General. These directions are translated by the CF H Svcs Gp Headquarters (HQ) into specific clinical policy and programs, which are pushed to the operational and tactical level elements for implementation. The Surgeon General is supported by subject matter experts in the various clinical disciplines, e.g., mental health, nursing, pharmacy, physiotherapy and rehabilitation, and force health protection.

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[40] Combined operations. An operation conducted by forces of two or more nations acting together. DTB, record 3826.

[41] CF H Svcs Gp Instruction 5020-59 *Professional/Technical Governance of Canadian Forces Health Services Group*.

0312. **Aerospace medicine**. Designated as the Aerospace Medical Authority, the RCAF Surgeon has the responsibility of regulating and managing aerospace medicine within the Department of National Defence and the CAF.[42]

0313. **Public health**. Director Force Health Protection has the responsibility as the Chief Medical Officer of Health for public health matters in the CAF.

0314. **Dental**. The Chief Dental Officer is the CAF national technical authority for dentistry and is responsible for prof/tech control, standards, and acts pertaining to dentistry.[43]

0315. **Command Surgeons**. The CJOC and CANSOFCOM Surgeons provide operational-level clinical advice, prof/tech oversight, support, and coordination to current and contingency operations within their respective commands.

0316. **Maritime operations**. The senior Canadian medical officer/physician assistant afloat serves as the Maritime senior medical authority (SMA), responsible to the Maritime Component Command Surgeon for prof/tech matters. For CJOC and non-CJOC named operations/exercises, day to day prof/tech oversight is usually performed by the Fleet Surgeon (Atlantic or Pacific). For Maritime Task Forces, for which a Fleet Commander is embarked, a senior medical officer would be assigned as a medical advisor.

Key Deployed Health Services Appointments

0317. **JTF Surgeon**. For CJOC-led operations, the JTF Surgeon is a physician appointed to be the senior health authority. The JTF Surgeon is responsible to the CJOC Surgeon for prof/tech matters. For large expeditionary operations, the JTF Surgeon is integral to the deployed establishment. For small expeditionary missions without an integral medical officer, the CJOC Surgeon performs the functions of the JTF Surgeon. For domestic joint operations the Regional Surgeon usually assumes the role of JTF Surgeon.

0318. Within a Canadian JTF, the JTF Surgeon is responsible for providing clinical advice to the commander, ensuring that the commander and staff are properly aware of the health related implications of their actions as well as any force health issues connected to the operation. Direct access of the JTF Surgeon to the commander and other key command staff elements is a prerequisite for ensuring effective medical support. The JTF Surgeon may also have the additional role of CO of the HS unit.

0319. On large or complex missions the JTF Surgeon will only serve a national-level coordination function within the national command element to include medical advice to the JTF commander. Separate command surgeons will be employed (e.g. Brigade Surgeon, Division Surgeon, Air Wing Surgeon, and Fleet Surgeon) and will be responsive to the respective Land, Air, and Maritime Component Command Medical Advisor. These command surgeons will be responsive to the JTF Surgeon for Canadian-specific issues.

0320. **Commanding officer health services unit (CO HSU)**. The CO HSU has legal command authority over all personnel assigned to the HSU and is responsible and accountable for the provision of HS within the area of responsibility (AOR). This is done in conjunction with the JTF Surgeon for clinical matters when the two positions are separate. The CO HSU is the principal advisor on the capabilities, limitations, and employment of the unit.

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[42] 1150-21 (D Coord EMFA 4), September 2006, *Aerospace Medical Authority*, Annex A, paragraph g; CFMO 13-6 *Aeromedical Evacuation*.

[43] CF H Svcs Gp Policy 1001-04 *Dental Professional & Technical Responsibilities at Strategic/Operational Levels*.

0321. **Senior medical authority (SMA)**. While clinical intervention is executed at the lowest level, senior clinicians are responsible for oversight. The SMA is the individual holding prof/tech authority over the clinical aspects of health support within the supported element. This term is applicable at all levels of command. The senior clinician, usually a physician, is the SMA.[44] The SMA oversees and reports on the functional and technical aspects of health care to the JTF commander and the CJOC Surgeon. The SMA provides clinical advice, within their scope of practice, to the supported commander. The following are examples of who may be a SMA:

a. the JTF Surgeon;

b. in missions without a CAF medical officer, the physician assistant, nurse, or medical technician is the local SMA. In these instances, the local SMA does not carry the full scope of clinical authorities delegated to an SMA who is a physician;

c. in small missions without CAF HS personnel, the SMA is the CJOC Surgeon or the CANSOFCOM Surgeon; and

d. on North American Aerospace Defence Command (NORAD)-led operations, the 1 Canadian Air Division Surgeon is the SMA for Canadian NORAD Region.

0322. **Senior dental authority**. The senior dental officer at each level of command is the senior dental authority for dental prof/tech matters, and the dental adviser to the commander on all matters pertaining to the oral health of all personnel within the command.

0323. **National medical liaison officer (NMLO)**. Tracking the location and status of CAF patients is of great interest to the chain of command. When a CAF patient is admitted into a friendly force or host nation MTF, an NMLO from the HSU tracks and provides national administrative support to the patient until they re-enter the Canadian medical system where the patient's supporting CF Health Services Clinic continues the tracking.

Health Services Field Force

0324. The CF H Svcs Gp standing field force comprises Regular and Reserve Force field ambulances and 1 Canadian Field Hospital. Typically:

a. a Reserve Force field ambulance provides Role 1 medical support within Reserve Brigades;

b. a Regular Force field ambulance provides Role 1 medical support within a Canadian Mechanized Brigade Group; and

c. 1 Canadian Field Hospital provides Role 2 medical support and can form the core of a multinational Role 3 MTF.

0325. Except for some domestic operations, or for largescale formation-sized deployments, these units do not normally deploy as a formed unit. Rather, they form the basis of a task-tailored JTF HSU.

[44] Generally, medical specialists (surgeon, anesthetists, etc) are not appointed as an SMA.

Joint Task Force Health Services Units

0326. In most operations, whether joint or single service, the HS element is task-tailored based on the HS estimate.[45] Depending on the mission the HS element may range from a single person up to unit or formation size depending on the size of the JTF. For example, a Canadian JTF on a NATO mission may include a small air task force, an infantry battle group, two ships, and a support component. A tasked tailored HSU would be deployed to ensure the appropriate mix of treatment, evacuation and preventive medicine is provided or arranged for each component of the JTF.

0327. A task-tailored HSU could include some or all the elements depicted in Figure 3.1.

0328. In large or complex missions, or one with great geographical dispersion, more than one HSU and independent HS elements may be employed. In these circumstances a Joint HS Group and a command element may be required.

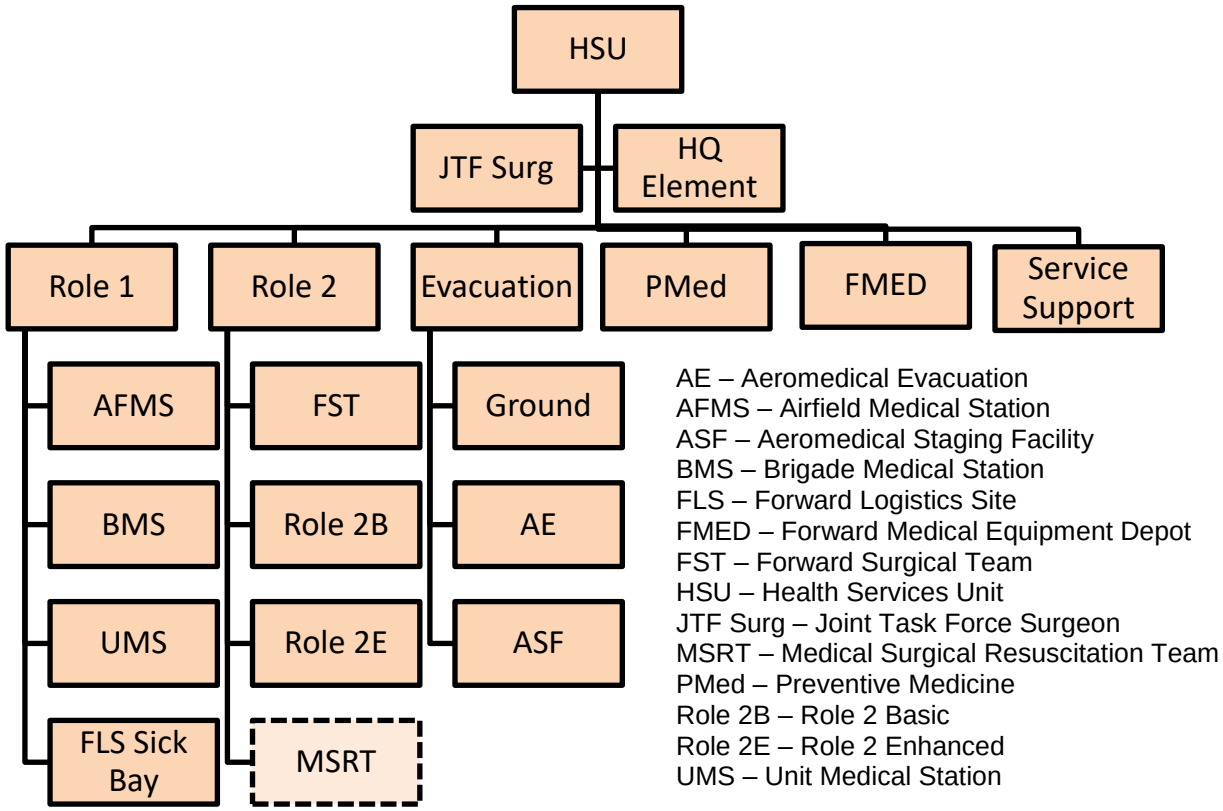

Figure 3 .1- Potential Components of a Health Services Unit

0329. The HSU,[46] consisting of a number of mission-specific HS capability packages, will provide HS to the operation. Generally, all CAF HS elements (less Special Operations Forces and onboard ships) are grouped in a HSU. Sub-elements of the HSU may be detached OPCON to support the tactical components of the JTF.

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[45] The doctrinal organizations of HS elements are under development.

[46] For simplicity the term "unit" is used, implying that there is a commanding officer. If the HS element is smaller than unit size then HSU is not used. Instead the appropriate descriptor of section, platoon, or company is used.

0330. Depending on the mission HSU tasks may consist of:

a. providing or arranging Role 1, Role 2, and Role 3 HS to all JTF personnel during all phases of a mission;

b. providing HS advice to all levels of command regarding clinical matters and the employment of HS resources;

c. providing and/or coordinating HS logistics support for all tactical components and JTF personnel;

d. coordinating Force Health Protection within the overall Force Protection plan;

e. conducting and coordinating medical evacuation with HSU resources, and coordinating with higher headquarters for forward, tactical, and strategic AE;

f. operating an aeromedical staging facility;

g. providing AE crewmembers and equipment for forward and tactical AE missions;

h. providing or coordinating mental health care;

i. providing medical and preventive medicine training for JTF personnel;

j. providing medical intelligence;

k. conducting medical regulating and patient tracking;

l. providing national medical liaison officers;

m. providing HS financial services such as coordinating payment of bills from third-party health-care providers; and

n. providing training and capacity building within the host nation.

0331. Combat service support arrangements will be mission dependent. A large HSU during mobile operations will have integral maintenance and logistics. Small HS elements or a HSU in static operations may have its support provided by other JTF elements such as a JTF's support component, a battle group's support company, or air expeditionary wing's mission support squadron. Support arrangements may evolve as the mission changes or matures.

Joint Task Force Support Component (JTFSC)

0332. A JTFSC[47] is a task-tailored grouping of operational-support capabilities under the command of a single commander, thus providing the JTF with an integrated support structure. It provides or arranges third-line, operational-level support that may include HS. HS organizations may be grouped as a unit within the JTFSC, or outside of the JTFSC as a separate JTF element.[48]

0333. If the HS element is grouped under the JTFSC, control may be decentralized, and subunits or smaller HS elements may be detached OPCON to other JTF components as the tactical situation dictates.

0334. Notwithstanding the roles and responsibilities of the JTFSC, the JTF Surgeon and CO HSU must have unimpeded access to HS entities, military or civilian, and direct communications with HS entities external to the JTF for the purposes of planning and conducting the HS mission.

[47] See CFJP 4-0, *Support* for details on the JTFSC.
[48] See CFJP 4-0, *Support* paragraph 0756.

Also, the SMA must have direct access to the JTF commander for the provision of clinical advice.

Coordination of Support to the Health Services Unit

0335. Elements of the HSU deploy in territory that is controlled by others, such as the host nation, allied forces, battle group, or JTFSC. Coordination of support to the HSU will be required from/through the JTFSC or tactical-level support elements. This may include:

a. daily maintenance commodities such as ammunition, rations, water and petroleum/oil/lubricants;

b. site selection and preparation for MTFs;

c. utilities such as water supply, sewage disposal, power, and communication and data hook-up;

d. disposal of biomedical waste and other environmental contaminants;

e. garbage disposal;

f. mortuary affairs;

g. legal services;

h. personnel, vehicle, and materiel decontamination;

i. vehicle and equipment maintenance beyond integral support;

j. local labour;

k. security;

l. financial services; and

m. public affairs services.

Detached Health Services Elements

0336. HS elements may be detached from the HSU and attached OPCON to component commands or formations. Furthermore, an HS element detached from the HSU and attached under tactical control to an operational unit is usually under the command of the SMA in charge of the element, who in turn reports either directly to the unit CO or a delegated sub-unit commander. The SMA continues to utilize the prof/tech chain for clinical oversight and quality assurance matters. Note that there may be a number of Role 1 or Role 2 elements supporting dispersed units and/or formations of the JTF.

Section III – The Health Services Staff

0337. The JTF HQ HS Cell and HSU will possess staff commensurate with its size and the rank of the commander to provide command, control, planning, administrative, and support capabilities to plan and execute tactical activities. Generally, staff that are in formation or multinational headquarters are not part of the HSU. ABCANZ Report 207, *Health Coordination Center – ABCANZ 2 Star Headquarters* provides guidance on the roles of the HS staff.

0338. The principle duty of staff is to assist commanders in the function of command. Staff should also work to support subordinate commanders, their staff and the personnel of the command. Staff act only on the authority of their commander.

0339. HS personnel may be assigned to the formation headquarters. Responsibilities of a formation HS staff include:

a. providing advice on health and HS;

b. planning, coordinating, monitoring, and reporting on:

(1) formation-level force health protection, including medical counter-measures;

(2) medical evacuation and patient tracking;

(3) hospitalization;

(4) procurement, storage, distribution, maintenance, and disposal of medical and dental materiel;

(5) storage and distribution of blood and blood products;

(6) distribution and location of HS units;

(7) medical intelligence;

(8) HS aspects of civilian-military cooperation programs;

(9) implement, monitor, and manage the validation of training of HS personnel, and providing advice, assistance and supervision for paramedical training of other JTF personnel, (e.g., tactical combat casualty care); and

(10) quality assurance and clinical oversight.

0340. Note that at the tactical level (brigade or wing) there may be no separation of HS staff and line functions (i.e., the CO HSU may also be responsible for formation-level HS staff functions).

0341. **Location of HS planners**. At the tactical level, the JTF HS planners and the JTF Surgeon must focus on where the majority of casualties are expected. Due to the urgency of casualty management and to be responsive to the tactical situation and time and space concerns, HS operations and planning staff must be in, or have immediate access to, the JTF HQ.

0342. On larger deployments there will be HS staff integral to the JTF HQ. This staff, in coordination with the CO of the JTF HSU, conducts the HS planning. In deployments without a dedicated HS staff in the JTF HQ, the CO HSU will be the primary HS planner. If more than one HS unit is deployed, a HS Group HQ should be considered.[49]

Medical Coordination Cell

0343. A medical coordination cell (MEDCC)[50] is a multifunctional element comprising a medical operations/plans, a patient evacuation coordination cell (PECC), an FHP cell and a HS Logistics cell. It is normally only formed at large (division) or multinational formation headquarters. It is the planning, coordinating and, along with the HSU, executing body of the medical organization for all JTF operations. The MEDCC coordinates multinational, joint, and multifunctional medical issues.

[49] The term "Group" is equivalent to the Army use of "Brigade". A Canadian HS Group is similar to a US Medical Brigade.

[50] On NATO missions it may be referred to as Joint Medical or JMed.

0344. The main function of the MEDCC is the implementation of medical plans and policies set forth by the JTF Surgeon. It coordinates implementation and execution of the full spectrum of HS plans between all components of the JTF. The PECC is a sub-element of the MEDCC focussed on evacuation.

0345. In large multinational operations there may be MEDCCs and PECCs at theatre, component, and sector/regional headquarters. In a Canadian JTF or divisional context, the MEDCC will be integral to the JTF or divisional headquarters. A Canadian led MEDCC may include multinational personnel.

Interface between Health Services and Other Staff Functions and Advisors

0346. HS staff will routinely work in close cooperation with other staff functions. The non-exhaustive list below demonstrates the areas and subjects where HS staff must work in unison with other staff, and have access to, and interact with them without intermediaries. Timely exchange of information, flexibility in decision making, teamwork spirit and mutual trust are essential in these relationships.

0347. **J1 – Personnel and administration**. There is a considerable interface between the functions of HS and personnel support. They both have roles to play during the initial planning stages and continue long after an operation has finished. Consequently, the working relationship must be well developed and relevant personnel issues should be detailed in HS plans. Common areas of interaction between J1 and HS include:

a. casualty reporting;

b. patient tracking;

c. personnel allocation and replacements for HS units;

d. welfare (including amenities) and spiritual matters for patients;

e. employment of PW and retained personnel to augment the HS;

f. administration of the Code of Service Discipline relating to patients and personnel of HS units;

g. medical repatriations;

h. handling of the deceased including forensic (dental) identification, death certificates, and post-mortem; and

i. assisting in the notification of next of kin.

0348. **J2 – Intelligence**. The J2 staff is responsible for providing all-source intelligence of medical interest, estimates of the adversary's casualties, and advice on adversary capabilities that could impact our own force casualty rates and HS requirements.

0349. Medical expertise could be a significant part in intelligence preparation and force protection in particular for the identification of health threats to the force andof civilian health care resources in the area of operations.

0350. Medical intelligence collection and assessment remains a permanent secondary task of the medical staff in the theatre of operations. Information collected will be shared with the J2.

0351. Medical intelligence must not be used to exploit or take advantage of medical vulnerabilities of any party with respect to medical confidentiality, privacy rights and the LOAC or recognized laws pertaining to human rights.

0352. On most operations there will not be dedicated CAF medical intelligence personnel. This will require reach back to the medical intelligence cell at CFINTCOM [*see* Chapter 5, Section III for details on medical intelligence].

0353. **J3 – Operations**. The operations staff acts as a focal point through which the commander directs and maintains continuous oversight of operations.

0354. The J3 staff will determine the response to any situation that may compromise medical support to the force, and will make decisions over allocation of limited resources. HS are responsible to inform the J3 staff of the medical implications of any courses of action, and possible mitigation strategies.

0355. J3 staff develops and implements the formation force protection program in coordination with other staff, including HS for FHP measures.

0356. The HS staff contributes to critical incident management, mass casualty management, and disaster response. Implementation of plans will be enacted by the J3 because the resources will come from across the JTF to include non-medical assets. During the execution phase, the HS staff will coordinate all medical activities, while the J3 will coordinate non-medical activities.

0357. The HS staff contribute to the J3 CBRN by providing advice on the human effects of adversary CBRN agents, prophylaxis/pre-treatment recommendations, maximum permissible radiation doses, biological casualty reporting and medical plans for decontaminating, evacuating, and treating CBRN casualties. J3 CBRN will provide the adversary CBRN capabilities, friendly force CBRN dispositions, the CBRN battle space concept of operation, defensive posture, warning of attack, and post-attack remediation actions.

0358. Other HS matters coordinated with the J3 staff are:

a. planning, coordination, and control of movement;

b. prioritization and control of critical supplies and equipment;

c. authority to launch aircraft for Forward AE;

d. terrain and evacuation route allocation;

e. ground force protection;

f. prioritization of work of engineer services;

g. provision of guards for PW and detainee patients; and

h. provision of defence elements.

0359. **J4 – Logistics**. The J4 staff is responsible for assessing the logistics support required to achieve the commander's objectives. The J4 will also coordinate the overall logistic effort.

0360. Coordination between HS and logistics staff is required to ensure consistency and integration of logistics and HS missions. Activities that require close linkage between HS and logistics staff include:[51]

[51] *See* also Chapter 8.

a. in conjunction with J3, prioritization of transport of HS supplies and equipment on strategic lines of communications;

b. transport of HS supplies when normal HS resupply system is not available;

c. coordination of food and water logistics, accommodation and waste management;

d. return of patients to home units or replacement holding units, in conjunction with the J1 staff;

e. local purchasing/contracting;

f. host-nation support;

g. hiring and administering host-nation civilian employees;

h. movement of HS units and facilities; and

i. mortuary affairs.[52]

0361. **J5 – Plans**. J5 staff has the primary function of coordinating and consolidating planning input from all key staff elements, including HS. They promulgate the commander's decisions on the courses of action for the campaign through planning directives, operations plans, and contingency plans.

0362. One of the most important interactions between the J5 and the HS staffs is the determination of casualty estimates for a given operation, J5 leading. A large number of factors must be taken into account for the estimation of battle casualties in contingency and operations planning. Therefore, the selection of casualty planning rates should involve consultation between Operations, Plans, Medical, and Intelligence staffs.

0363. **J6 – Communications**. The J6 staff provides reliable and secure communication and information systems (CIS) necessary to support an operation which includes the provision of communications equipment, connectivity, and bandwidth.

0364. The potential exists for large amounts of detailed information and data on casualties to be transmitted. The increased use of telemedicine and internet based medical applications requires greater CIS resources and bandwidth. CAF HS elements may require connectivity to other CAF elements, allies, coalition, and a national rear link to the clinical prof/tech network. CIS assets must provide adequate connectivity within the HS functional area, both vertically and horizontally in the C2 architecture. Early in the planning process, HS CIS requirements, including HS specific software programs and telemedicine, must be identified to the J6 staff. See AMedP-5.3 *Development and Implementation of Telemedicine Systems* for more information.

0365. **J7 – Training, Exercises and Lessons Learned**. J7 staff is responsible for exercise planning. J7 has linkages to HS staff to ensure appropriate real-time medical support for all exercising personnel including deployment and redeployment. Additionally, whenever practicable, simulated casualty play should be incorporated into all exercises. HS staff must actively engage with J7 staff from the outset.

[52] The handling of deceased is not a medical task, but medical personnel can support on request (e.g., conducting post-mortem examinations to identify disease or cause of death).

0366. J7 staff is also tasked with assessing and improving operational and tactical procedures by processing and transferring recent experience through the lessons learned process into actionable guidance.

0367. **J8 – Resources and Finances**. J8 is the principle financial management adviser. J8 staff is responsible for the correct and efficient application of all funds approved for use in theatre in support of the operation. Direct in-theatre interaction between finance and HS staff may be required for contracting support, payment of health care bills for host nation support, and coordination of NATO common funding such as when Canada is the lead nation of a multinational MTF.

0368. **J9 – Civil-Military Cooperation**. The primary mission of J9 staff is the establishment of a specialist interface between military and civilian authorities and organizations, to establish and maintain good civil-military relations and to gain the greatest advantage for the commander.[53] J9 staff can assist with:

a. coordinating the use of host-nation civilian health-care facilities for military personnel;

b. treatment, evacuation, and hospitalization of civilians; and

c. liaison with non-governmental organizations, international organizations, and the host nation.

0369. **Legal Advisor**. The legal advisor provides legal advice to commanders during all phases of an operation. For each operation, the HS staff works with the legal advisors to resolve issues concerning national, international, and host-nation law. This includes provision of care agreements, arrangements, claims activity, public health liability, compliance with the law of armed conflict, medical rules of eligibility, support to non-governmental organizations, international organizations, or the local population, and the treatment of PWs and detainees.

0370. **Gender Advisor**. The Gender Advisor provides advice regarding GBA+ considerations (see Chapter 2, paragraphs 0255-0257).

0371. **Chaplain**. Chaplains provide counselling and complete confidential communication on matters of ethics, morality, morals, and religion to patients and staff as well as advice to the command on topics such as:

a. religious accommodation and sensitivity;

b. well-being and stress reduction measures;

c. end of life consultation and ethics committee input;

d. coordination for specific religious support requests (dietary or clergy visitation vetted through the security office);

e. provision of end of life rites, sacraments, and/or prayers; and

f. religious support in critical incident response and follow-on support.

[53] *See* AJMedP-6, *Allied Joint Civil-Military Medical Interface Doctrine*.

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Chapter 4
Communications and Information Management

Section I - General

Introduction

0401. The command and control of a deployed comprehensive end-to-end HS system requires a robust communications network and integrated information management. This requires a capability to exchange information ranging from the furthest forward medical personnel, along the continuum of care, and back to the strategic headquarters to seek professional technical guidance and strategic evacuation.

0402. Deployed HS elements must be capable of exchanging information at the unclassified and classified levels with medical facilities and MEDEVAC assets. They must also be able to interface with corresponding logistic and operational data management systems, and operations-planning tools. They must be able to capture mission-essential medical data, particularly the location, capability and capacity of the medical support elements within the JTF. This supports medical regulating and patient tracking and allows staff to respond with timely, educated decisions by having rapid access to the information.

0403. On most international operations the CAF will work with other nations' HS elements, whether for treatment or MEDEVAC. To coordinate effort and improve patient outcomes there is a requirement to exchange information. CAF HS elements will require the use of bi-lateral or multinational communications and information technology systems and software.

0404. Robust communications capabilities are important for the clinical management of individual cases. Connectivity allows medical professionals to communicate with consultant specialists to discuss medical cases providing and receiving clinical advice (e.g. telemedicine).

0405. Requirements on operations are likely to include a span of dedicated and non-dedicated assets encompassing medical verbal and visual communication, automation technology, data, and information management.

Medical Verbal Communications

0406. Verbal communications must have sufficient connectivity and capacity to ensure linkages within the medical support structure down to the lowest HS unit element, JTF elements, coalition medical structure, and national rear link. Direct signal communications support, in the form of terrestrial and satellite networks, is required to provide a reliable and timely verbal communications architecture comprising radio, fax, telephone, and web-based capabilities. It is particularly important for evacuation and treatment assets located in theatre, as well as providing support to similar assets located out of theatre.

Medical Visual Communications

0407. Visual communications must include real-time and store-and-forward technologies with electronic health records applications. Transmitting visual imagery over long distances for tele-health functions could provide medical diagnostic support to detachments far away from specialists, thereby reducing the medical footprint required in theatre. Some of these, particularly teleradiology, require a substantial amount of bandwidth. This must be coordinated with the J6.

Software Programs

0408. Early in the planning process planners must liaise with the J6 regarding HS specific requirements such as access to Canadian HS software and that of our partners (e.g. Canadian Forces Health Information System, US Transportation Command Regulating and Command & Control Evacuation System, Disease and Injury Surveillance System, and US Department of Defence Trauma Registry).

0409. To assist decision making there is a requirement for a medical common operating picture which is linked to the operations and logistics common operating pictures. NATO is working on such a system.

Medical Information Exchange Requirements

0410. Standardized reporting assists with the timely flow of information which supports decision making. On NATO or coalition operations it is important to establish which medical information exchange requirements formats will be used. An example is the medical evacuation request – 9-Liner (see ATP-97 *NATO Land Urgent Voice Messages (LUVM) Pocket Book*).

0411. The frequency of reporting varies and should be focused on the requirement; it can be regular or routine, national or multinational, ad hoc or episodic, and will be heavily influenced by the nature and tempo of the operation. Accurate documentation and reporting enables tracking and trending of disease and injury data, which is mined to identify potential epidemics and areas for improvement of care.

Cyber Threat

0412. All communication and information systems are increasingly under a cyber threat. For HS this threat includes C2 systems, the electronic collection, storage, and transmission of HS information, and advanced medical equipment. This threat must be assessed when developing HS information management systems, procedures for the use of telemedicine and advanced medical equipment. See Joint Doctrine Note 2017-02 *Cyber Operations* for more information on the cyber threat, cyber defence and cyber security.

Section II – Health Records

Introduction

0413. Medical record keeping encompasses the recording and processing of medical information on a patient including personal medical and dental details and clinical history, as well as details of medical care and evacuation provided. As patients move through the evacuation and treatment chain, it is crucial that health-care providers at subsequent levels understand the care that has been previously administered. Medical records will accompany the patient during evacuation, ideally being sent electronically ahead of the patient so that their needs are known by the receiving MTF in advance. For patients from another nation medical documentation should be released to the respective national medical liaison teams.

Documentation Requirements

0414. Patient documentation procedures should be clear and comprehensive. To enhance interoperability, CAF medical documentation should be based on standardized NATO tools/documents/forms as prescribed in STANAGs. Key STANAGs include:

a. STANAG 2132 – AMedP-8.1, *Documentation Relative to Initial Medical Treatment and Evacuation*;

b. STANAG 2347 – AMedP-8.8, *Medical Warning Tag*;

c. STANAG 2348 – AMedP-8.2, *Basic Military Medical Report*;

d. STANAG 2464 – AMedP-3.1, *Military Forensic Dental Identification*. *See* CF H Svcs Gp Order 1023-08, *Forensic Odontology*;

e. STANAG 2231 – AMedP-5.1, *Patient Data Exchange Format for Common Core Information*;

f. STANAG 2543 – AMedP-5.2, *Standards for Data Interchange between Health Information Systems*; and

g. STANAG 2461 – AMedP-7.1-3, *CBRN Medical Report Form*.

0415. The protection and sharing of medical information must adhere to legal requirements regarding patient confidentiality. CF H Svcs Gp Instruction 5020-20, *Disclosure of Personal Health Information* provides guidance on this matter.

CAF Patient in Other Nation's Medical Treatment Facility

0416. When a CAF patient is in another country's military or civilian MTF, it is necessary to obtain a hard copy of all health records. On small missions without CAF HS personnel, the CAF JTF commander is responsible to ensure hard copies of all medical records are collected, and confidentiality maintained, for any CAF member who has received treatment during the mission. These records are to be sent back to the member's parent Base/Wing CF H Svcs Centre. The parent CF H Svcs Centre is responsible to ensure translation of any documents received if they are not in either English or French.

Allied and Civilian Patient Health Records

0417. When a patient of an allied nation is treated in a Canadian MTF, a clinical record is prepared. A copy of the record accompanies the patient on transfer between facilities, and is forwarded to the patient's national military HS authority when the patient is discharged or dies. The original record is retained by the CAF. When electronic health records are used, a hard copy of all health records will be provided. The clinical record should include the minimum information required in AMedP-8.2, *Basic Military Medical Report*. When a field medical card and/or patient evacuation tag has been prepared, they should accompany the clinical record.

Electronic Health Records

0418. **Canadian Forces Health Information System (CFHIS)**. CFHIS is the CAF electronic health-record system. CFHIS requires DWAN connectivity and adequate bandwidth. To define requirements and ensure capability integration, initial mission planning must include input from the CFHIS Operations Coordination & Training Cell staff. Additional information can be found on the CFHIS website http://cmp-cpm.mil.ca/en/health/cf-health-info-system/index.page.

0419. **Electronic health information exchange**. The standards to enable the electronic exchange of health information between CFHIS and other allied military health-information systems are specified in AMedP-5.1, *Patient Data Exchange Format for Common Core Information* and AMedP-5.2, *Standards for Data Interchange between Health Information Systems*. However, these standards have not been fully implemented by many nations, including Canada. In multinational HS operations, early planning is required to determine whether, and to what extent, an exchange of electronic health information is possible. If not possible, hard copy will be used.

Medical Reporting

0420. **Patient safety incident reporting** is conducted in accordance with CF H Svcs Gp Instruction 2000-09, *Incident Management – Patient Safety*.

0421. **Casualty reporting**. Once a casualty enters the HS system, the HS exercises control over the individual. Movement of patients often involves evacuation beyond formation boundaries and to other nation's MTFs, both military and civilian. Thus, the HS must keep the patient's parent unit and formation informed of patient movements. This requires coordination with the J1 staff.

0422. Casualty/patient reporting is done in accordance with CFAO 24-1, *Casualties – Reporting and Administration*.

0423. CAF MTFs may admit, treat, transfer, and discharge Canadian patients or patients from other countries. Each facility is responsible to provide the patient's information to the appropriate national authority directly or through staff channels. Procedures for doing so should be detailed in standing orders and should be in accordance with AMedP-8.1 *Documentation Relative to Initial Medical Treatment and Evacuation*.

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Chapter 5
Force Health Protection

Section I - General

Introduction

0501. Disease and non-battle injuries are an ever-present risk and are responsible for the greatest burden of morbidity among deployed personnel. Significant conservation of manpower can be achieved by measures designed to promote health and prevent diseases and injuries.

0502. **Force Health Protection (FHP)** is defined as all medical efforts to promote or conserve physical and mental well-being, reduce or eliminate the incidence and impact of disease, injury and death and enhance operational readiness and combat effectiveness of the forces.[54] It encompasses preventive and reactive measures taken to counter the effects of the environment, occupational health hazards and disease.

0503. The primary aim of FHP is casualty prevention through the robust implementation of comprehensive disease and injury prevention measures and of health protection and surveillance capabilities (including environmental health) that will promote, improve, or conserve the mental, behavioural and physical well-being of the deployed force.

0504. FHP will influence operations planning. Elements of the FHP program, such as vaccination or food and water vulnerability assessments, may be decisive factors in how quickly an operation can commence, and protective measures will frequently require implementation as soon as the decision is taken to commit to action. FHP measures continue throughout the deployment and must extend well into the post-deployment period.

0505. Command direction and emphasis may be the most critical aspect of FHP – preventable health harms usually do not result from a failure of health interventions, but rather a failure to use them. Failure or poor implementation of FHP measures may result in a decrease of operational readiness and fighting power.

0506. This chapter should be read in conjunction with AJMedP-4 *Allied Joint Medical Force Health Protection Doctrine* and its subordinate standard related documents, AJMedP-3, *Allied Joint Doctrine for Medical Intelligence* and AJMedP-3 Standards Related Document 1 *Guide to Medical Intelligence*.[55]

0507. **Directorate of Force Health Protection (DFHP)**. CF H Svcs Gp HQ/DFHP is the FHP authority in the CAF. DFHP subject matter experts are available on a reach-back basis for all deployed and domestic operations.

0508. FHP is based on a national-level planning capability, a deployable strategic health threat and risk assessment capability, as well as operational- and tactical-level prevention and promotion capabilities. On large scale missions (e.g., Division or larger sized formations), a FHP cell is normally established within the formation headquarters' medical staff, providing advice on how to protect the force against health threats.

[54] NATO*Term*, record 26015.
[55] AJMedP-3 Standards Related Document 1 *Guide to Medical Intelligence* is not currently available in French.

Components of Force Health Protection

0509. **Preventive Medicine (PMed)**. PMed is the branch of medicine that seeks to protect, promote and maintain health and well-being and to prevent disease, injury, disability and death.[56] It is the anticipation, prevention, and control of communicable diseases, illnesses, and exposure to endemic, occupational, and environmental threats. These threats include non-battle injuries, environmental and occupational exposures, weapons of mass destruction, food and waterborne diseases and intoxications, and other threats to the health and readiness of the deployed force. This is achieved through:

a. the identification and characterization of health threats to deployed personnel associated with terrain, climate, endemic and communicable diseases, environmental, industrial, and occupational hazards;

b. the provision of advice to commanders on health threats, and the operational impact that they might exert;

c. identifying necessary preventive measures and advising commanders on their implementation, to include the development of a theatre policy on immunization, prophylaxis measures, and acclimatization;

d. the auditing and implementation of preventive measures (e.g., vector and pest control); and

e. the gathering and analysis of epidemiological data.

0510. **Health readiness and health promotion**. CAF personnel must be sufficiently healthy and physically and mentally fit to function effectively in very demanding and potentially dangerous situations. Health promotion is a multi-level approach to enable leadership to actively develop and sustain a strong, healthy, and fit force. It also provides all CAF leaders and personnel with the information, skills, and tools necessary to promote, take control, and improve their own health and well-being in preparation for deployment. It provides best practices and subject matter expertise in its four core areas that includes addictions awareness and prevention, active living and injury prevention, nutritional wellness, and social wellness.

0511. **Deployment health surveillance, disease and casualty reporting**. Deployment health surveillance is the routine, standardized tracking of disease and injury rates, initial analyses of data to support responses at the unit level and data driven corrective actions at all levels. It provides a key indicator of troop health status, and serves as a key warning system or sentinel to trigger further investigation, implement preventive countermeasures, or other command actions needed to reduce the adverse impacts of health threats. It also provides an estimate of the impact on manpower and working day losses (i.e., it forecasts the impact of health events on force readiness).

0512. **Hazard identification and risk assessment**. See AJMedP-4 *Allied Joint Medical Doctrine for Force Health Protection* for details on hazard identification and risk assessment.

Public Health Emergency of International Concern

0513. International health regulations require notification to the World Health Organization of any event that may constitute a public-health emergency. Such an event is one that constitutes a

[56] NATO*Term*, record 26014.

public health risk to other countries through its spread and may require a coordinated international response. Notifications to the World Health Organization are coordinated through DFHP.

Section II – Deployment Activities

Pre-Deployment Activities: Medical Readiness Preparation and Baseline Assessment

0514. Commanders at all levels must emphasize pre-deployment medical readiness, including medical, dental, and mental-health fitness. At a minimum, pre-deployment medical readiness includes:

a. **Physical, dental, and mental fitness**. Compliance with Canadian and, when defined, with UN, or NATO fitness requirements. In particular:

(1) DAOD 5009-1, *Personnel Readiness Verification Screening*;

(2) CF H Svcs Gp Policy 1023-04, *Dental Screening Examination for International Operational Deployments*; and

(3) *Road to Mental Readiness* Program deployment training.

b. **Immunization and other preventive medications**. DFHP issues mission-specific FHP recommendations. Appropriate immunizations and other preventive medications (e.g., malaria chemoprophylaxis) must be offered to, or mandated for, deployed personnel;

c. **Health promotion**.[57] Key health promotion messages will be presented to all deploying personnel during theatre mission-specific training;

d. **Personal protective measures**. Personal protective measures include insecticide-treated uniforms and bed netting, personal insect repellents, instruction on the proper wearing of uniforms, and personal protective equipment; and

e. **PMed training**. PMed training for individuals includes PMed measures for the full spectrum of disease and injury threats to include key infectious diseases and environmental health risks, and on core PMed principles and countermeasures, including those for good personal hygiene and sanitation.[58]

Employment Phase Activities: Medical Readiness Support and Hygiene

0515. **Critical incident management and outbreak control**. Outbreaks of infectious and contagious diseases during deployments have a considerable potential to incapacitate large segments of a military force. The medical response must be coordinated with the Operations and Plans staff of the supported formation. Civilian health authorities may also need to be involved. Early identification of health hazards through epidemiologic analyses can guide interventions and investigations and can help to contain an outbreak.

0516. **Restriction of movement of contaminated or infected patients**. Restriction of movement is a measure for controlling the spread of contagious disease by restricting contact between healthy groups of personnel and those who either have, or are suspected of having,

[57] The process of enabling people to increase control over and to improve their health. NATO*Term*, record 17466.
[58] See AJMedP-4 Standards Related Document-4, *Field Hygiene and Sanitation.*

contracted a contagious disease.[59] Whenever there is a suspected or confirmed outbreak of a contagious disease, environmental health threat, or use of a contagious biological warfare agent, the SMA is responsible to advise the operational commander on restriction of movement requirements. The commander should seek legal advice when contemplating imposition of isolation and quarantine measures.

0517. **Animal-associated disease control**. Animals can be the source of or harbour other organisms that are capable of transmitting dangerous pathogens. In many foreign locations animal health and/or medical services are not robust, and the threat of animal associated diseases (e.g., rabies) is elevated. This includes companion animals like dogs and cats, which are a primary reservoir for rabies. On deployed operations pets, including animal mascots, should not be kept.

0518. In addition to avoidance, professional services (e.g., PMed) might be required to control hazardous animals, other organisms or contaminated items. This includes measures to reduce the risk of importing into Canada something that may pose a threat to human and animal health, the environment, and/or the economy.

0519. **Infection control in medical treatment facilities**. Infection control can be challenging in a field environment. All MTFs shall maintain an infection prevention and control program in accordance with CF HS Advisory 4070-02 *Infection Prevention and Control in the Deployed Healthcare Environment.*

0520. **Field sanitation**. Maintaining a sanitary environment in the field will reduce the risk of introducing and transmitting infectious diseases. Commanders must maintain essential sanitary living conditions and control of waste in the area of operations by employing basic sanitary principles. These include: proper disposal of waste generated from humans and from camp operations, incorporation of the principles of food safety and food defence, control of insects and rodents, and promotion of personal hygiene. See AJMedP-4 Standards Related Document-4, *Field Hygiene and Sanitation.*[60]

0521. **Food safety**. Food safety is as essential in operating environments as it is in garrison. To the extent that is operationally practical, the highest standards of food safety and hygiene and food defence must be practiced through all stages of food procurement, storage, preparation, and distribution. The facilities must be inspected and audited by suitably qualified and experienced personnel (e.g., PMed Technicians).

0522. **Potable water safety**. Providing adequate quantities of potable water to deployed forces is critical to maintaining health and readiness. Failure to do so can result in significant illness and morbidity. The goal of the CAF water program is to provide potable water on deployment that meets the standards of the Canadian Drinking Water Guidelines. However, operational constraints might make this difficult or impossible, in which case the commander (with advice from FHP specialists) might decide to accept risks associated with use of water that does not meet this standard of quality.

0523. **Deployable Health Hazard Assessment Team (DHHAT)**. DHHAT may deploy to mission locations to confirm the presence of a suspected health threat derived from intelligence reports, to obtain additional threat information, and to assess the need for further threat

[59] NATO*Term*, record 24883.
[60] AJMedP-4 Standards Related Document-4, *Field Hygiene and Sanitation* is not currently available in French.

assessments and mitigation measures. HS personnel with occupational health, public health, and pest management training may deploy during theatre activation, usually followed by a multidisciplinary DHHAT. The DHHAT samples and surveys health hazards in detail to quantify contaminant levels. A comprehensive environmental health hazard assessment is then conducted by the DFHP expert team of civilian and military specialists in toxicology, occupational medicine, and environmental health. DHHAT is redeployed whenever necessary and at mission closure.

0524. **Civil labour**. Locally engaged employees are often used during deployed operations (e.g., general labourers, kitchen staff, cleaners, interpreters, etc). Such personnel might present health threats by acting as a reservoir for infectious diseases. The SMA should provide advice to the commanders on appropriate risk mitigation measures for locally engaged employees.

0525. Ideally, the host nation will be responsible for the health of civil labour and any camps they occupy. However, if the host nation's medical infrastructure or the medical standards are inadequate, forces employing civil labour will need to make appropriate arrangements to protect the health of their own troops and civilians. At a minimum, this must include a strategy to prevent and eradicate infectious diseases that are a threat to troops and a first aid service during work. Depending on the supporting civilian infrastructure, consideration must also be given to providing a primary health care service for civilian labourers.

Post-Deployment Activities

0526. The health readiness status of redeploying forces can provide important insight for short and longer-term planning and response. For example, it can be used to support evaluation of existing medical intelligence and HS capabilities, thereby identifying the need for changes in current or subsequent operations.

0527. Guidance on individual post-deployment medical screening is found in CF H Svcs Gp Instruction 4000-17, *Post-deployment Medical Screening Assessments*.

Section III – Medical Intelligence and Information[61]

General

0528. **Medical intelligence** is intelligence derived from medical, bio-scientific, epidemiological, environmental and other information related to human or animal health.[62]

0529. **Medical information** is a collection of data relating to human and animal health, including medical, bio-scientific, epidemiological, environmental, infrastructure and other data that has not been analyzed for intelligence purposes.[63]

0530. Medical intelligence and medical information contribute to the intelligence preparation of the operational environment, provide situational awareness of the climate and conditions in which the force will be operating, contribute to the assessment of risks, shape course of action development, and determine FHP measures.

0531. Medical intelligence should be command-directed, mission-focused, reliable, comprehensive, predictive when possible, flexible, and derived from all-source, multidisciplinary

[61] AJMedP-3 *Allied Joint Medical Doctrine for Medical Intelligence* and AJMedP-3 Standards Related Document 1 *Guide to Medical Intelligence* describe Medical Intelligence in more detail.
[62] NATO*Term*, record 12185.
[63] NATO*Term*, record 38844.

means. To be responsive to the needs of the commander and end user it should be centrally coordinated, be timely, use systematic exploitation methodologies, be objective, have maximum accessibility, be consistently revised and provide source protection when warranted. Being of a highly technical nature, medical intelligence requires informed medical expertise during its direction and processing phases within the intelligence cycle.

0532. Medical intelligence and medical information covers:

a. environmental factors including topography and climate, socio-economic factors, public health, animal and plant hazards;

b. analysis of enemy and host-nation capabilities. This should include information on civilian and military facilities in the area of operations whatever the sources of information (national, international, civilian or military) to include health care services and infrastructure including organizational structure, capabilities of hospitals and treatment facilities, casualty evacuation and emergency health services and capabilities, specialist health support, medical material, blood bank, and clinical laboratory capabilities; and

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

0533. The collection and handling of medical intelligence and information has to be compliant with ethical standards and recognized laws pertaining to human rights such as the UN Principles of Medical Ethics, the LOAC and medical confidentiality. Medical intelligence is not to be used to take advantage of medical vulnerabilities of any party as this would be a serious violation of fundamental ethical and legal conventions.

0534. The dissemination of medical intelligence may be restricted for security and operational reasons. Medical information should be freely shared with allies and partners.

0535. **The Medical Intelligence Cycle**. See AJMedP-3-1 *Guide to Medical Intelligence Handbook.*

Reporting and Requesting Medical Intelligence

0536. Early in the planning process, HS planners must engage medical intelligence cell at CFINTCOM. Medical intelligence provides operational-level health hazard assessments and travel medicine briefs to support operational planning and to inform FHP recommendations. Requests for medical intelligence should be specific and can also be made to the supporting intelligence element.

0537. In the normal course of duty, HS personnel at all levels gain information that is of value to medical intelligence production. Such information should be reported on a timely basis to the Intelligence staff of the next higher headquarters in the operational chain of command. HS personnel should note their obligation under the *Geneva Conventions Act*, pursuant to Article 16 of Protocol 1 of the *Geneva Conventions Act* when reporting information: “No person engaged in medical activities shall be compelled to give to anyone belonging either to an adverse Party, or to his own Party except as required by the law of the latter Party, any information concerning the wounded and sick who are, or who have been, under his care, if such information would, in his

opinion, prove harmful to the patients concerned or to their families. Regulations for the compulsory notification of communicable diseases shall, however, be respected".[64]

0538. Requests for intelligence are submitted through the process detailed in CF H Svcs Instruction 7000-33 *Medical Intelligence - Collection, Reporting, Analysis and Dissemination*.

[64] CF H Svcs Instruction 7000-33 *Medical Intelligence - Collection, Reporting, Analysis and Dissemination.*

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Chapter 6
Military Health Care

Introduction

0601. Military health care (MHC) encompasses the treatment component of the continuum of care, ranging from immediate first aid at the point of injury to in-theatre surgical care to definitive specialized care and rehabilitation provided in Canada.[65] Although MHC is inextricably linked with medical evacuation they are treated as separate disciplines. Medical evacuation is covered in Chapter 7.

Elements of Military Health Care

0602. **Preventive health care**. Preventive health care encompasses services aiming to identify, prevent, and control acute and chronic communicable and non-communicable diseases, illnesses, and injuries. This includes medical screenings, vaccinations, advice and training on protective countermeasures and hygiene. See Chapter 5 Force Health Protection.

0603. **Occupational health care**. Occupational health care encompasses medical fitness assessments for military personnel operating in certain military occupations, screenings for and treatment of illnesses or injuries related to specific operational or working environments. Examples of occupational health care specialties are dive medicine, tropical medicine and aerospace medicine.

0604. **Emergency medical care**. Emergency medical care encompasses the critical actions required for timely evaluation, resuscitation, stabilization, treatment and transportation of an emergency patient to prevent loss of life, limb, and function. Pre-hospital emergency care is delivered from the point of injury to admission in a Role 2 MTF where critical care and specialist treatment (including surgery) can be provided.

0605. **Primary health care**. The provision of integrated, accessible health care services by clinical personnel trained for comprehensive first contact and the continuing care of individuals experiencing signs and symptoms of ill health or having health concerns. Primary health care includes health promotion, disease prevention, patient education and counselling, and the diagnosis and treatment of acute and chronic illness.[66]

0606. **Mental health care**. Mental health care encompasses mental health screenings prior to deployment, prevention and management of psychological and mental impairment resulting from illness, stress or trauma during combat operations, and into the post-deployment period. Mental health care aims to improve the overall health of the force and to ensure that personnel have the services they require to deal with issues that arise, such as post-traumatic stress disorder and the consequences of traumatic brain injury. Several STANAGs have been developed to address these mental health issues:

a. AMedP-8.6, *Forward Mental Healthcare*; and

b. AMedP-8.10, *A Psychological Guide for Leaders across the Deployment Cycle*.

[65]MHC is the subject of AJMedP-8, *Allied Joint Medical Doctrine for Military Health Care* and its subordinate publications.
[66] NATO*Term*, record 26132.

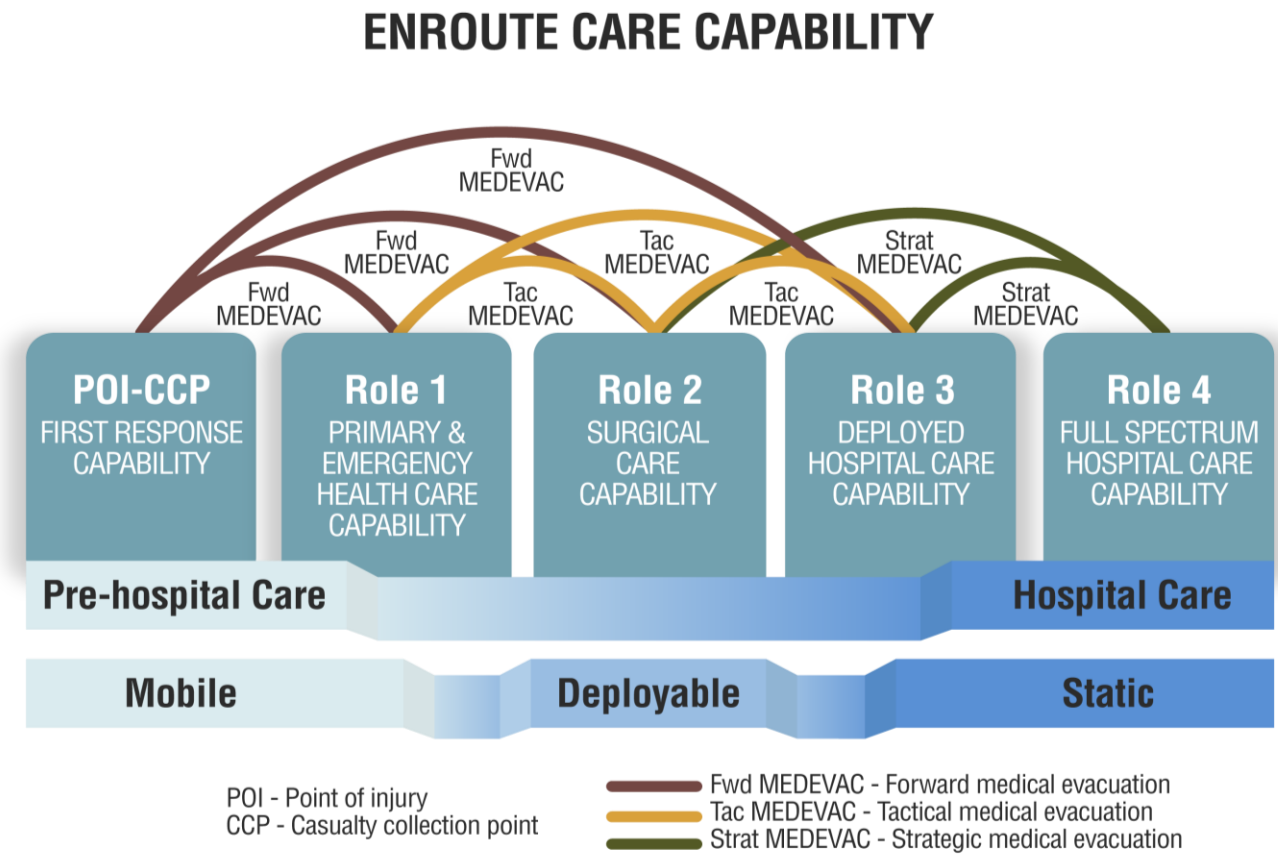
0607. **Dental care**. Dental care encompasses dental health screenings prior to deployment as well as prevention and management of dental impairment during operations. Dental care on operations is provided at deployed MTFs to varying degrees based on the requirements of the particular mission. AMedP-8.13 *The Extent of Dental and Maxillofacial Treatment at Role 1-3 Medical Treatment Facilities* describes the different dental care capabilities required to treat dental and maxillofacial conditions.

0608. **Animal care**. Animal care encompasses first aid, treatment, care and welfare to military working animals. The CAF does not have a veterinary service; however, these services may be contracted or arranged with other nations when the CAF employs military working dogs. Contracting of veterinary services is a J4 Logistics function. Some CAF medical resources may be requested to assist with animal care, e.g., the use of medical evacuation resources or the use of x-ray for military working dogs.

Medical Emergency Response

0609. To achieve the best possible outcome for any kind of medical emergency a continuous and flexible medical emergency response organization needs to be established for operations. This comprehensive organization needs to incorporate all necessary components of medical support, but will usually be focused on providing emergency care and surgery.

0610. Under combat conditions the flow of casualties and acute medical cases usually follows the continuum of care. As depicted in Figure 6-1, one or more emergency response capabilities may be bypassed due to patients' needs and the workload and capacity of MTFs.



6-1: Medical Emergency Response

Roles of Medical Support[67, 68]

0611. **Role of medical support** is "a category that identifies the functions and capability of a medical unit or element. Medical care is categorized into four roles. Most of the care capabilities of each role are intrinsic to the next higher role."[69] Roles of medical support are not tied to levels of command. Rather, the term "role" is based on the clinical functions it provides. See below for the descriptors of each role.[70] Further, roles of medical care do not equate to levels of sustainment or lines of support which are described in CFJP 4-0 *Support*.[71]

0612. Due to the unique nature of maritime operations, the roles of medical support are further subdivided. See CFHSP-1 *Health Services Planning* for more information.

0613. A certain role of medical support does not imply a particular location in the battlespace, nor does it automatically indicate a particular size. For example, Role 1 medical support is provided throughout the battlespace. It includes the sub-unit medic[72] in forward infantry companies, the unit medical station (UMS), the brigade medical station, the medical detachment onboard a ship, the airfield medical station, and the medical detachment supporting a sea port of disembarkation.

0614. Roles of medical support may be co-located. For example, during a counter-insurgency operation a FST (a subset of Role 2) may be co-located with a UMS (a subset of Role 1) at a battalion-sized forward operating base.

The First Response Capability: Point-of-Injury Care

0615. Although not a doctrinal role of medical care, the first response capability is listed in this section to emphasize its importance for the outcome of clinical treatment and to showcase where the continuum of care begins.

0616. **Point-of-injury care**. The aim of the care given at the point of injury is to remove the casualty from immediate threat, usually in a non-permissive environment, and to avoid further deterioration of vital functions through immediate lifesaving measures. Whenever practicable, first aid for the most seriously injured should take place immediately, but not longer than within **10 minutes** of injury.[73] Often this is conducted by non-medical personnel trained to deliver combat first aid and tactical combat casualty care.

0617. **Casualty collection point (CCP)**. The CCP is the first location where casualties are collected sheltered from enemy direct fire. It is controlled by the sub-unit sergeant major or other designated individual. It is manned with one or more medics. Casualties are moved to a CCP by any means available. Here, casualties are prepared for MEDEVAC to a higher level of care. This includes the removal of any non-essential equipment such as weapons, grenades, or radios prior to evacuation.

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[67] To be consistent with NATO Canada uses medical rather than health when describing Roles.
[68] The UN uses the term "Levels" rather than "Roles".
[69] NATO*Term*, record 26136.
[70] See AMedP-8.13 *The Extent of Dental and Maxillofacial Treatment at Role 1-3 Medical Treatment Facilities* for information on roles of dental care.
[71] Some older tactical level publications use the terms integral, close and general support rather than lines of support.
[72] Medic refers to a Medical Technician or Medical Assistant (Reserves).
[73] This is the "10" of the 10-1-2(+2) Treatment Timeline (see paragraph 0209).

0618. **Prolonged field care**. Prolonged field care is the use of additional techniques in resuscitation, pain and airway management when a patient's evacuation to the next appropriate MTF is delayed beyond recommended timelines. It should be provided by advanced-trained military personnel. When feasible, providers can be assisted remotely through telementoring.

0619. Multiple tactical factors will affect the probability of prolonged care being required. Medical planners must assess where there are vulnerable points within the evacuation chain, ensure that these are adequately resourced and inform the operational commander of the risks.

Role 1 Medical Support – Emergency and Primary Health Care

0620. The provision of Role 1 medical support is usually a national responsibility and focuses on the provision of primary health care, specialized first aid, triage, resuscitation**,** and stabilization.[74] Role 1 medical support provides:

a. advice to the chain of command on basic occupational and preventive health issues;

b. routine, daily sick parade and the management of minor sick and injured personnel for immediate return to duty;

c. collection from a CCP;

d. a minimal patient holding capacity; and

e. preparation of patients for evacuation to the next higher-level treatment.

0621. In accordance with the mission, a Role 1 MTF may include some, or all, of the following capabilities:

a. DCR Teams;[75]

b. a dental module (e.g., dental teams at a BMS);

c. basic diagnostics;

d. initial stress management;[76]

e. limited medical supply; and

f. physiotherapy.

0622. Examples of Role 1 MTFs are the unit medical station, the brigade medical station, and the airfield medical station. Not every Role 1 MTF will have a full DCR capability (the medical estimate will determine the requirement).

0623. In maritime operations a dental team is routinely deployed on the auxiliary oiler replenishment ship.

Role 2 Medical Support – Surgical Care Capability

0624. Role 2 medical support provides a capability for the reception and triage of casualties, as well as the structure to perform treatment of wounded, injured and diseased at a higher technical

[74] NATO*Term*, record 26133.
[75] A highly mobile five person team which includes an Emergency Medicine physician capable of providing DCR in forward areas.
[76] Initial stress management is a chain of command responsibility. It may be supported by the Role 1 MTF. Further details are outlined in AMedP-8.6 *Forward Mental Healthcare*, Annex A: *Psychological Management of Potentially Traumatizing Events.*

level than role 1, including resuscitation and surgery.[77] Role 2 MTFs capabilities routinely include emergency intake, damage control surgery (DCS), diagnostics, a post-operative capability, medical supply, C2, and a limited holding facility for the short-term holding of casualties until they can be returned to duty or evacuated.

0625. It may include enhancing modules [*see* Table 6.2] such as imagery, CT-scan, dentistry, intermediate and critical care wards, pharmacy, laboratory, internal medicine, isolation, and mental health. It may include complementary modules [*see* Table 6.2] such as specialist surgery, preventive medicine, and physiotherapy. Dental capabilities may comprise primary dental care up to oro-maxillofacial surgery. The design and deployment of Role 2 MTFs are mission-dependent, especially when:

a. there are large numbers of personnel or a risk of high numbers of casualties or the type of casualties are foreseen to be necessitating such a capability;

b. geographic, topographic, climatic, or operational factors may limit MEDEVAC to higher levels of the continuum of care to comply with treatment timelines, especially when lines of communication are extended, or host-nation medical support is inadequate; and

c. the size and/or distribution of the force do not warrant the deployment of a full hospital response capability (Role 3 MTF).

0626. There are three types of Role 2 MTFs:[78]

a. **Forward Surgical Team (FST)**.[79] FSTs are highly mobile and deployable into remote, austere, or unsecure tactical environments enabling forward projected resuscitative and surgical treatment to control bleeding, maintain circulation, restore perfusion and preserve life, limb, and function. FSTs may also be deployed to augment or to enhance other medical capabilities in theatre. It is a sixteen person team with limited post-operative capacity. Due to their limited capacity FSTs rely on immediate medical evacuation and resupply after treatment;

b. **Role 2 Basic (Role 2B)**. A Role 2B MTF provides initial DCS for emergency surgical cases to deliver life, limb, and function saving medical treatment. The surgical capability should be provided within the clinical timelines detailed in Chapter 2. At a minimum a Role 2B MTF consists of the seven core modules [*see* Table 6.2]. The normal configuration is two trauma bays, one operating room, four intensive care unit beds, and 12 intermediate care beds. In non-warfighting operations a dental module may be added;

c. Due to its minimal holding capability Role 2B MTFs are dependent on a robust evacuation system to move patients to a Role 2E or Role 3 within two hours of a patient being stabilized following initial DCS. Depending on the mission and operational requirements a Role 2B MTF can be set up in tents, in a building, or on a ship where its size and capacity will typically be constrained compared to land-based facilities; and

[77] NATO*Term*, record 26134.
[78] The capability and capacity of the MTFs is based on NATO Capability Statements.
[79] NATO uses the term Role 2 Forward, though this is not accepted by all nations.

d. **Role 2 Enhanced (Role 2E)**. A Role 2E MTF must provide all the capabilities of the Role 2B, but has additional capacity and capabilities, including primary surgery and the ability to stabilize and prepare casualties for strategic aeromedical evacuation. It may conduct definitive surgery for patients whose injuries do not require them to be evacuated further. Depending on the mission, specific enhancing modules or complementary contributions will be added to the seven core modules [*see* Table 6.2 below]. The normal configuration is four trauma bays, two operating rooms, eight intensive care unit beds, and 50 intermediate care beds. It will normally include an oro-maxillofacial surgical capability. It has the capacity to hold patients for greater than 24 hours if necessary.

0627. Due to their limited clinical capability and capacity an FST and Role 2B must always be supported, within two hours evacuation time, by a Role 2E or Role 3.

0628. The terms "Basic" and "Enhanced" relate to clinical capabilities and capacity and do not refer to the level of mobility of the respective MTF. Note that the simple addition of one enhancing module does not automatically mean that a Role 2B becomes a Role 2E.

0629. **Mobile Surgical Resuscitation Team (MSRT**). Falling outside the definition of a Role 2, the MSRT is smaller than an FST and primarily used as an enhanced extraction capability. Generally used for Special Operations Forces (SOF) operations it can be based in the back of aircraft, on ships, or under tentage. It is used for short duration missions and forms its own enroute care evacuation capability, treating then moving one or two patients.

0630. **Primary surgery**.[80] Primary surgery (including specialized surgery) should follow DCS as soon as the patient can be stabilized for the mode of MEDEVAC to be used and as the operational situation permits. Some techniques and procedures of specialized surgery might be necessary to safe life, limb, or function, or to stabilize the patient's condition within a limited timeline. Primary surgery is conducted at Role 2E or Role 3 MTFs.

Role 3 Medical Support - Deployed Hospital Care Capability

0631. Role 3 medical support provides the structure for deployed hospitalization with the elements required to support it, including a mission-tailored variety of clinical specialties and support functions.[81] Clinical capabilities and holding capacity of Role 3 MTFs must be sufficient to allow diagnosis, treatment, and holding of those patients who, on receiving adequate treatment, would be able to return to duty in accordance with the theatre patient return policy.[82] Dental capabilities comprise comprehensive dental care and oro-maxillofacial surgical capability. Patients who cannot be returned to duty in accordance with the theatre patient return policy are evacuated out of theatre.

0632. A Role 3 MTF must provide all the capabilities of the Role 2E MTF and be able to conduct specialized surgery, specialized care, computed tomography, oxygen production and additional services such as neurosurgery and internal medicine as dictated by mission and theatre requirements.

0633. The mobility of Role 3 facilities depends significantly on the operational scenario. Often it needs to be deployable only for initial entry into theatre and will not require subsequent

[80] Some NATO publications use "intra-theatre surgery" rather than "primary surgery".
[81] NATO*Term*, record 27544.
[82] See Chapter 2 for details on the theatre patient return policy.

redeployment. However, in a highly mobile operation, it may be necessary to redeploy Role 3 facilities to continuously support the force.

0634. Table 6.1 is a comparative table of Role 2 and 3 capabilities.

MSRT	FST	Role 2 Basic	Role 2 Enhanced	Role 3
Stabilization Extraction Zero holding capacity	1 Trauma bays 1 Operating room 1 Post operation bed	2 Trauma bays 1 Operating room 4 Intensive care beds 12 Intermediate care beds Core Modules+	4 Trauma bays 2 Operating rooms 8 Intensive care beds 50 Intermediate care beds	8 Trauma bays 4 Operating rooms 16 Intensive care beds 150 Intermediate care beds Requires partner nation support
6 personnel	16 personnel	95 personnel	250 personnel	>390 personnel
-capacity of four extremities and four cavity procedures -Dependent on others for logistical support	-Reliant on immediate MEDEVAC and resupply after treatment -Dependent on others for logistical support	-To be highly mobile it requires integral service support elements -Reliant on robust MEDEVAC	-Stabilization for strategic aeromedical evacuation -Some long-term holding (>24 hrs)	-All capabilities of R2E -Specialized surgery -Specialist care

Table 6 .1 Role 2 and 3 Surgical Capabilities

Role 4 Medical Support - Full Spectrum Hospital Care Capability

0635. Role 4 medical support provides the full spectrum of definitive medical care that cannot be deployed in the theatre or is too time-consuming to be conducted there. [83] Role 4 includes highly specialized medical procedures, specialist and reconstructive surgery, and rehabilitation. It is normally provided in Canadian civilian facilities.

Medical Treatment Facility (MTF)

0636. A MTF is a facility established to provide medical and/or dental care.[84] They are normally described as Role 1 to 4. Enhancing and upgrading the clinical capabilities of MTFs requires additional complex equipment, personnel, and supplies, which in turn increases utilities, transport, and other support requirements (i.e., higher roles are less mobile). Examples of MTFs are the UMS, BMS, AFMS, Role 2B, Role 2E, and Role 3.

0637. A dental module may be attached to any MTF. Dental modules vary in capability from emergency dental care up to oro-maxillofacial surgery. The capability, capacity, and location of the dental modules is determined during the HS planning process.

0638. MTFs should be situated in the battlespace by taking into account expected casualty rates, likely locations of most casualties, and the 10-1-2(+2) treatment timelines [*see* Chapter 2].

[83] NATO*Term*, record 26135.
[84] DTB, record 47830.

Modular Approach to Medical Support

0639. Canada has adopted the NATO modular approach to medical support to enhance interoperability with our NATO partners.[85] It is based on predetermined groupings of personnel and equipment defined as standardized modules for ease of management and greater flexibility of employment. Each module represents a functional capability that is selected in line with the mission specifics and operational requirements. The individual modules can be provided from a variety of sources; national and/or non-national, military and/or civilian. This is primarily for Role 2 and 3 MTFs.

0640. Modules are classified into three different groups: core modules, enhancing modules, and complementary contributions [*see* table 6.2]. Modules are defined taking into account the required capabilities, capacities and personnel skill set. NATO is currently defining each of the modules; however, AMedP-1.7 *Capability Matrix* and AMedP-1.8 *Skills Matrix* provide guidance on the capabilities and skills required for some modules. During the OPP the capacity of each module will be determined.

0641. Complementary contributions reflect specific demands, special environmental requirements of the host nation, or imperatives related to the type of mission. They can be added to a Role 2B, Role 2E, or Role 3.

Core Modules	Enhancing Modules	Complimentary Contributions
-Patient Holding -Post-operation Holding -Emergency Area -Initial Surgery Response -Basic Laboratory and Imaging -Command and Control -Medical Resupply	-Imagery -Computed Tomography -Dental -Sterilization -Intermediate Care Ward -Mental Health -Primary Care -Intensive Care Unit -Pharmacy -Laboratory -Internal Medicine -Hospital Management	-Additional Clinical Specialists -Specialist Surgery -Oxygen Production -Preventive Medicine -Hyperbaric Medicine -Transient / Response Ambulances -Telemedicine -Magnetic Resonance Imaging -Blood Bank -Animal Care (not a CAF capability) -Mortuary (a logistics function) -CBRN (patient decontamination & treatment)

Table 6 .2 Modules

Additional Capability

0642. **The Canadian Forces Forensic Odontology Response Team (CF FORT)**[86] may be required to conduct forensic dental identification to assist with the identification of human remains. CF FORT is a high-readiness capability trained to deploy forensic odontology elements as part of a multidisciplinary civilian or military identification team. Established primarily as a way of ensuring the identification of war dead, the CF FORT capability may be requested by governmental authorities, normally coordinated by the Royal Canadian Mounted Police. Non-military forensic odontology tasks may include large scale disaster victim identification in Canada or internationally, as well as small scale, yet sensitive identification tasks internationally where it may not be appropriate for the Royal Canadian Mounted Police to employ civilian practitioners. See CF H Svcs Gp Order 1023-08 *Forensic Odontology* for details.

[85] See AMedP-9.1 *Modular Approach for Multinational Medical Treatment Facilities (MTF)*.
[86] Odontology is synonymous with dentistry.

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Chapter 7
Medical Evacuation

Section I - Introduction

General

0701. **Medical evacuation (**MEDEVAC) is the medically supervised process of moving any person who is wounded, injured or ill to and/or between medical treatment facilities as an integral part of the treatment continuum.[87] It is the function of getting the right patient onto the right platform with the right medical assets to the right medical treatment facility within the recommended 10-1-2(+2) clinical timelines.

0702. MEDEVAC is an integral part of the continuum of care and conducted by designated assets able to provide in-transit care in accordance with prevailing medical standards at the same or a higher level as provided by the originating unit. The in-transit provision of medical attention to patients throughout the continuum of care should be considered an independent medical activity and must be planned for accordingly.

0703. **Casualty evacuation (CASEVAC)** is the non-medically supervised process of moving a person who is wounded, injured or ill.[88] Since CASEVAC is neither a medical capability nor a medical responsibility, it is not considered as part of the MEDEVAC plan or system. Movement of casualties by CASEVAC should only to be considered when MEDEVAC assets are not available within a medically reasonable period of time or the tactical situation demands such a course of action (i.e., it would be more dangerous to have casualties remain in situ).

Categories of Medical Evacuation

0704. While MTFs are generally categorized in terms of roles, according to their capabilities and function, medical evacuation assets are defined by the area in which they operate along the continuum of care. These are as follows:

a. **Forward MEDEVAC** is the movement of casualties in a platform with medical personnel from point of injury and/or illness to the first medical treatment facility.[89] It is conducted by ground or helicopter assets to take the patient to the most appropriate level of care within the designated timelines, which may not be the closest MTF. Forward MEDEVAC assets must meet similar protection levels as the forces operating in the area they cover. Forward MEDEVAC teams should be trained and equipped to provide advanced pre-hospital emergency care;

b. **Tactical MEDEVAC**. The intra-theatre movement of patients in a platform with medical personnel between medical treatment facilities.[90] It can be conducted by ground, helicopter or fixed wing assets. Normally, patients will be stabilized prior to evacuation. Tactical MEDEVAC teams should be equipped and trained to provide the same level of care as it is provided by the originating MTF which might include in-transit intensive care; and

[87] NATO*Term*, record 22089.
[88] NATO*Term*, record 20920.
[89] NATO*Term*, record 27526.
[90] NATO*Term*, record 27545.

c. **Strategic MEDEVAC**. The movement of a patient from theatre to Canada, to other NATO countries, or to a temporary out-of-theatre safe area. This task can be fulfilled by aircraft, trains, or maritime vessels using CAF resources, bilateral agreements with other nations, or civilian contractor. CAF Strategic Aeromedical Evacuation teams are based in Canada.

Principles of Medical Evacuation

0705. **Minimum handling**. Handling can increase shock and otherwise have an adverse effect on a patient's general condition. Unnecessary handling, especially moving on and off vehicles, should be avoided.

0706. **Staging**. During either ground or air MEDEVAC patients may be temporarily admitted to a staging facility where care is provided until evacuation can be resumed. Staging may be required due to the clinical requirements of the patients, lengthy lines of evacuation, interruptions in the lines of evacuation, lack of MEDEVAC assets (tactical or strategic), or a change between evacuation assets (e.g., at a rail head or airport of embarkation).

0707. **Maximum speed**. Casualties must reach appropriate levels of care as soon as possible to minimized morbidity and mortality rates. Speed is achieved by selecting a rapid mode of transport, moving by the shortest route, and minimizing delays during MEDEVAC.

0708. **Enroute care**. While enroute, patients with higher acuity require appropriately trained and equipped medical personnel to provide sustaining care between MTFs. An example is critical care trained personnel to evacuate a patient from a Role 2B to a Role 3.

0709. **Responsibility to provide evacuation assets**. Generally, it is the responsibility of higher HS elements to evacuate patients from lower HS elements (e.g., a division is responsible to evacuate from brigades, and a brigade is responsible to evacuate from a unit).

0710. **Interdependence of evacuation and treatment**. The distribution, size, capacities, and capabilities of in-theatre MTFs will be based on the availability and type of evacuation assets used, evacuation distances, and the operating environment. Limits on the number or type of evacuation assets will have a direct impact on the length of time MTFs have to hold patients before evacuation is available.

Capabilities

0711. To accomplish its mission a MEDEVAC system must have:

a. the ability to evacuate casualties to, or between, MTFs 24 hours a day, in all weather, from all terrain and in any operational circumstances. The evacuation organization must identify alternative means to ensure continuation of care is maintained even if evacuation itself is restricted due to operational, environmental, or technical reasons;

b. the provision of necessary clinical care relative to the patient's condition throughout evacuation, using appropriately trained clinical staff with dedicated equipment;

c. the ability to regulate the flow of patients and their disposition to the most appropriate MTF; and

d. the ability to track patients accurately throughout evacuation in real/near real time.

0712. MEDEVAC assets may be called upon to evacuate military working dogs.

0713. **Canadian Medical Emergency Response Team (CMERT)**. CMERTs are composed of emergency care professionals trained and equipped to provide pre-hospital emergency and critical care in any operational environment. Currently the CMERT is used for Forward AE on the CH-147F Chinook; however, it will be further developed as a scalable capability to be used on other ground or air platforms.

0714. **Future capabilities**. Remotely piloted or autonomous evacuation vehicles, both air and ground based, are being developed by allied nations. There will be a requirement to develop appropriate tactics, techniques and procedures as these come into service in the CAF.

Escorts for Prisoners of War and Detainees

0715. Prisoners of War and detainees that require MEDEVAC require escorts from the capturing force. HS personnel are not to be used for this task.

Section II – Elements of Medical Evacuation

Medical Evacuation Assets

0716. **Intra-theatre assets**. Intra-theatre assets are used for **forward** and **tactical evacuation** of patients. Medical evacuation assets operating in a non-permissive or combat environment may require protection from combat elements.

0717. **Inter-theatre assets**. Inter-theatre assets will be used for **strategic evacuation** and options will be mission dependent. The most commonly used option is fixed-winged aircraft; however, hospital trains and ships may also be used depending on the nature of the AOR and distances involved. Bilateral agreements with other nations (e.g., the Integrated Lines of Communications agreement with the United States), or the use of contracting may be considered.

0718. Figure 7-1 illustrates different elements of MEDEVAC in a theatre of operations.

Communications

0719. All MEDEVAC assets must have communications on board to allow:

a. the appropriate assets to be directed to casualty collection points and subsequently directed to the most suitable medical support capability;

b. reduced response times by increasing flexibility;

c. precise tasking and re-tasking of assets, thus reducing the numbers of MEDEVAC assets required;

d. direct communication at the scene of an incident;

e. direct communications between in-transit medical staff and receiving clinicians. This allows advice to be given and permits the receiving facility to prepare appropriate staff and equipment; and

f. awareness of the tactical situation, which may affect route selection and force protection.

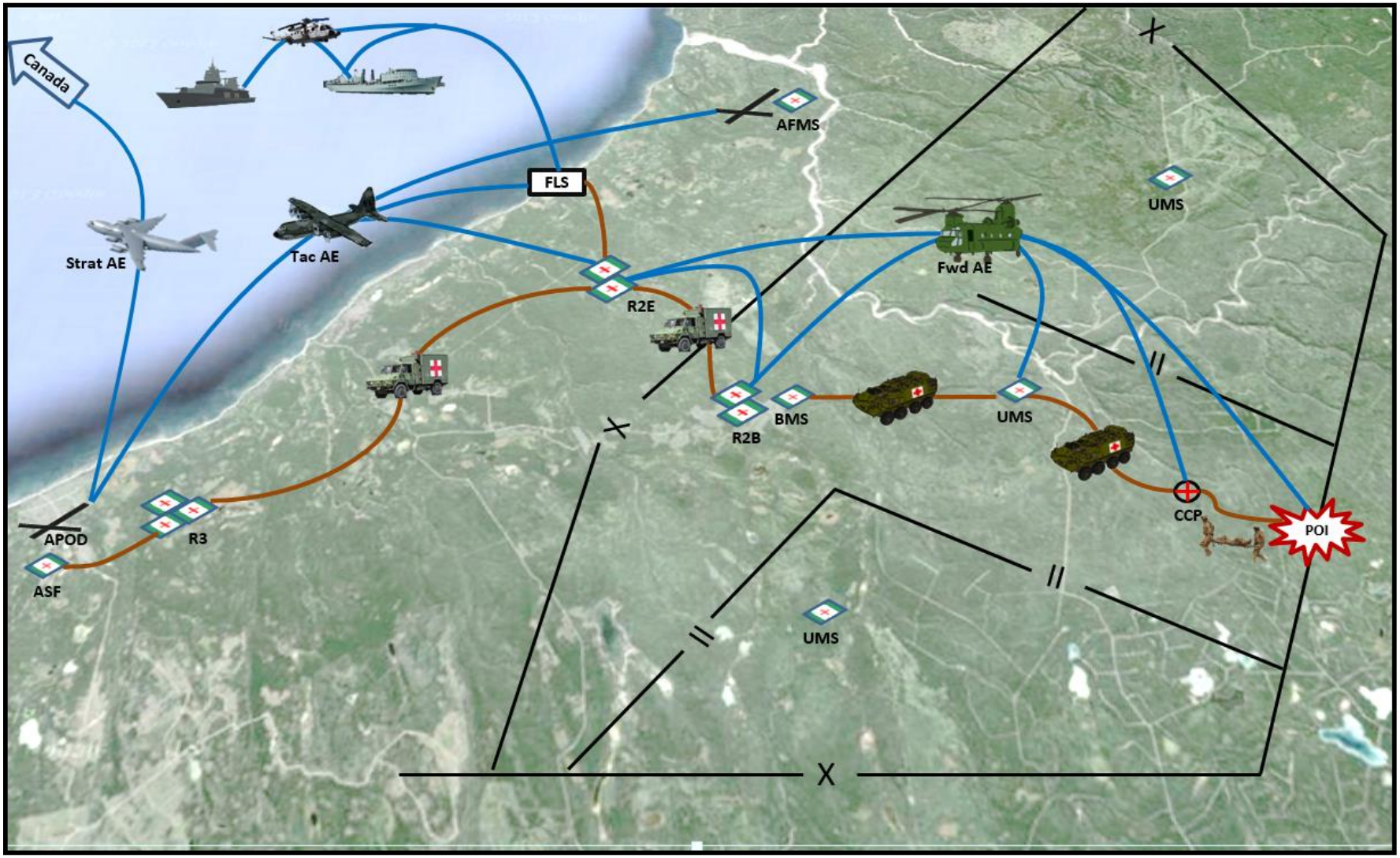

Figure 7-1 . The Different Elements of MEDEVAC in a Theatre of Operations

Ground Evacuation

0720. **Ground assets**. Armoured and non-armoured, wheeled, or tracked vehicles are used to transfer casualties from point of injury to, or between MTFs, within the AOR, as well as from MTFs to the port of embarkation, be it sea or air. These vehicles must have commensurate mobility, protection, and communications with the force they support. Ambulances are the most common type of ground evacuation transportation. Ground evacuation assets may include high capacity ambulances such as busses and hospital trains.

0721. **Coordination of ground evacuation**. HS elements must be aware of, and rapidly adapt to, conflicting operational needs. The allocation of real estate and routes is an Operations prerogative in accordance with the operational commander's priorities. MEDEVAC requires deploying resources to, and within, the areas of tactical-level operations. Thus, coordination with tactical-level battlespace owners is essential.

Aeromedical Evacuation

0722. **Aeromedical evacuation (AE)** is the movement of patients under medical supervision by air transport to and between medical treatment facilities as an integral part of the treatment continuum.[91] AE is a sub-set of MEDEVAC.

0723. **Air assets**. The inherent characteristics of aircraft, especially rotary-wing aircraft, increase the speed and flexibility of the military MEDEVAC system. AE helps to reduce the time between injury/onset of illness and start of surgery or specialist care.

0724. AE assets can cover a larger area and transport patients much faster than surface assets; however, they are limited by capacity, operational, and weather conditions. Fixed and rotary wing assets may be assigned or dedicated, on priority call or opportune lift.

0725. Depending on the stage of evacuation and patient condition, the standard AE crew may require enhancement with specialists able to provide intensive, critical, or mental health care during the AE. These medical specialist team members should be available throughout the evacuation chain.

0726. There are three types of AE:

a. **Forward AE** is conducted from as far forward as tactically possible to the initial MTF. This may be from the point of injury/illness, CCP, or a secure area (this may include the UMS).[92] While rotary-wing aircraft will typically be used to carry out forward and/or tactical AE, distance and weather conditions may dictate the use of fixed-wing aircraft;

b. **Tactical AE** is conducted from one MTF to another within the area of operations. Transfers from one MTF to another will normally occur when the patient requires care that is only available at another facility or when there is a need to clear beds due to impending or existing tactical operations. While fixed-winged aircraft are normally used for tactical AE, rotary-winged aircraft may also be used; and

[91] NATO*Term*, record 16728.

[92] Although, by definition an AE conducted from a UMS to another MTF could be considered "tactical AE", in practice it is called "forward AE" when it is conducted by helicopters in the forward battlespace. This is common understanding in NATO patient evacuation.

c. **Strategic AE** is conducted from intra-theatre MTFs to MTFs outside the area of operations or between MTFs outside the area of operations. Such movement normally occurs when patients require further treatment and must be moved to a definitive care facility. It is implemented through the 1 Canadian Air Division Aeromedical Evacuation Coordinating Officer in conjunction with the CJOC Movements Control Centre and the CJOC Surgeon. Long-range fixed-winged aircraft provided by the RCAF, allies, or contractors, are normally used for strategic AE flights.

0727. **Special Precautions for AE of Mental Health Patients**. Special precautions and considerations for AE of mental health patients are defined in B-MD-005-000/FP-001 *Aeromedical Evacuation Manual*. When required by patient condition and acuity, the standard AE crew members or forward AE specialist team shall be augmented. Augmentation may be either additional AE crew members and/or medical specialist team members who are mental health providers.[93]

0728. **AE of patients with infectious disease**. The AE of patients with known or suspected highly contagious infectious diseases requires a specialized patient isolator within the aircraft. The RCAF Surgeon must be consulted regarding the impact of World Health Organization regulations, International Air Transportation Association standards, or nationally imposed restrictions of movement.

0729. **Aeromedical Staging Facility (ASF)**. An ASF is a specialized patient holding capability that provides administrative support and medical care for already stabilized patients to prepare them for handover to the AE crew. It may be an independent MTF, or attached to an Airfield Medical Station, a Role 2E MTF, or Role 3 MTF. ASFs may be augmented with critical care, aviation medicine or medical supply capabilities as required.

0730. These facilities should be based at the airport of embarkation and/or staging airfield; the latter being where ASFs may be required to cover long lines of evacuation where an AE mission may have to be staged over a number of flight legs. The ASF also acts as a checkpoint within the patient tracking and medical regulation processes.

Maritime Evacuation

0731. **Maritime assets**. These assets range from small boats with limited capabilities, to full-scale hospital ships, able to treat and ferry casualties to more advanced Role 4 MTF. Most surface combatant vessels have embarked rotary-winged aircraft and rigid-hull inflatable boats available (though not dedicated) for evacuation. Fleet support ships may provide additional diagnostic and holding capability, to which Role 2 elements and additional rotary-winged aircraft can be added if the mission requires. Portable recompression chambers can be embarked on most surface combatant and fleet support vessels if required for diving operations

0732. Commanders should be made aware of the ‘reach’ of medical capability and possible constraints this may have on operational tasking. Where forces are required to operate outside this area of medical coverage, commanders must be advised of the increased risk of not being able to meet treatment timelines.

0733. The maritime environment contains numerous MEDEVAC challenges. Ships may be widely dispersed and/or operating long distances from land. Once casualties are sustained, their

[93] See also AAMedP-1.1 *Aeromedical Evacuation*.

management is often complicated by extraction and evacuation difficulties, which may be compounded by long transit times.

0734. Evacuation in the maritime environment can be generally conducted in two ways:

a. **By sea**. Evacuation by sea from a beachhead, inter-ship transfer, or rearward evacuation from Role 2 or 3 may all be undertaken by afloat assets, when circumstances permit. This may be complicated by sea state, weather conditions, distance, and access difficulties to and from high-sided afloat units. In addition, the delivery of all but the most basic in-transit medical care on small boats may be impossible; and

b. **By air**. The preferred option for evacuation of casualties will almost always be by rotary-winged assets since they are the fastest, most efficient and safest means of evacuation. Due to the limited number of helicopters they are not normally dedicated to the MEDEVAC role. Flying operations may be compromised by sea-state, weather conditions, type of aircraft, and unavailability/unsuitability of the ship's flight decks.

0735. The need for patient flow management exists in all operating environments regardless of the size of the deployed force. The staff element dedicated to this task may range from a single person aboard a ship to a fully manned PECC placed in the commander's headquarters.

Special Operations Forces Evacuation

0736. The SOF environment contains specific challenges to the conduct of MEDEVAC. Once casualties are sustained, their management may be complicated by extraction and evacuation difficulties, compounded by long evacuation routes that hinder treatment timelines.

0737. Removal of casualties from austere or clandestine locations can be difficult and time-consuming. It may require specialized extraction equipment and training or specialized extraction platforms. Frequently, SOF casualties will be extracted on any means of available transportation, requiring enroute care to be provided by the SOF element in location.

0738. Ideally, MEDEVAC in Special Operations is provided by dedicated rotary wing assets, specially equipped and manned for combat rescue and advanced enroute care, to allow continued actions on the objective and further missions. Since this is not always feasible, SOF units should have SOF trained easily deployable evacuation teams, capable of providing appropriate medical care enroute on a variety of air, land or sea platforms that can be prepositioned to support the mission.

Medical Evacuation Coordination in Multinational Operations

0739. In coalition operations it is expected that MEDEVAC assets from one nation will evacuate patients from other nations. Only properly coordinated procedures can assure the smooth transfer of patients within a multinational medical support structure. Assets may come from a number of sources, including common-use theatre assets, nationally owned assets, host-nation support, and third-party contracted capabilities.

0740. The responsibility for planning and executing an effective multinational MEDEVAC system lies with the HS staff, in close coordination with the Operations, Logistics, and Air Operations staffs. See AJMedP-2, *Allied Joint Doctrine for Medical Evacuation*.

Section III – MEDEVAC Procedures and Activities

Patient Evacuation Coordination

0741. Although MEDEVAC elements operate independent of MTFs, in a brigade sized task force forward ground MEDEVAC assets are usually an element of a Field Ambulance or a task-tailored HSU. In formations larger than a Brigade, MEDEVAC elements are separate from treatment elements.

0742. The placement and movement in the battlespace of air and ground MEDEVAC elements must coordinated through the Operations and Air staff. Depending on the tactical situation, air or ground evacuation assets may require additional platforms to provide force protection. This is coordinated through the Operations staff.

0743. **Patient evacuation coordination cell (PECC)**.[94] A PECC is formed at division and higher formation headquarters;[95] however, the concepts of the PECC are applicable at all levels. The PECC plans and coordinates the evacuation of casualties from the point of wounding to definitive care. Within their respective formations each PECC is responsible for medical regulating, patient tracking, the maintenance of the MTF capability database and MEDEVAC assets availability, and coordination with superior, subordinate, and flanking formation PECCs. A full list of duties are in AJMedP-2 *Allied Joint Medical Doctrine for Medical Evacuation* and CFHSP-2 *HS in Land Operations*.

0744. MEDEVAC requires deploying HS resources within areas of tactical-level operations and across formation and command boundaries. In contested environments MEDEVAC assets may require the allocation of force protection elements. The PECC requires close coordination with the battlespace owner, and formation Operations and Air staff.

0745. In coalition operations, pooling of assets is commonly considered via bilateral or multilateral agreements or contracting. Centralization of these assets, under the force commander, allows for economies of scale, effective operational management and timely intervention throughout the AOR. Details on the overall concept for MEDEVAC in a specific theatre, national, or multinational lines of control and accountability, and coordination of MEDEVAC assets must be specified in the operations plan.

Medical Regulating

0746. **Medical regulating** is the process of directing, controlling and coordinating the transfer of patients, from point of wounding or onset of disease through successive MTFs, 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. Note: some older publications use the term patient regulating.[96]

0747. The medical regulating of patients through the continuum of care is a dynamic process based on an evacuation plan that has to be closely linked to the medical footprint, the casualty

[94] At theatre level the PECC is, "The medical staff element providing the theatre level medical evacuation and regulating functions for all patients, in conjunction with force components and theatre logistic and movement control agencies." NATOTerm, record 33843.
[95] Higher formations include Land, Air, Maritime, and Special Force Component Commands, Sector, Regional, Theatre. There is usually a PECC in each.
[96] The definition in DTB, record 3327 is outdated.

rate, and the theatre patient return policy. It must take into consideration many planning and operational factors, such as:

a. availability of evacuation capabilities and assets at the tactical and strategic levels;

b. MTF availability, their capability and capacity, medical equipment status, and staffing levels;

c. current bed occupancy status at each MTF including any surgical backlog;

d. location of airport/seaport of embarkation;

e. location, number, and clinical condition of patients;

f. current tactical situation and associated risk from movement to patients or evacuation assets;

g. communication status in the regulating chain; and

h. theatre patient return policy.

Patient Tracking

0748. Keeping track of all patients is of crucial importance in terms of the individual's clinical condition, readiness implications to the unit of origin, as well as family, media, and national sensitivities to casualties. **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.[97] A patient tracking system must be real-time, accurate, and dynamic, using standardized procedures, and must be accessible by the HS and J1 staffs.[98]

0749. Continuous monitoring and notification of patient location and status is a great challenge and of significant importance in a multinational environment. In the multinational environment, patient tracking may present challenges such as language barriers, communication and information systems compatibility or differing national tracking processes.

0750. **National Medical Liaison Officer**. To facilitate patient tracking NMLOs may be deployed to other nation's MTFs to assist in the administration, tracking, and repatriation of CAF patients.

0751. On NATO Article 5 operations an NMLO may be attached to the Multinational Medical Coordination Centre/European Medical Command to coordinate strategic evacuation with other nations' resources.

Casualty Support Team

0752. A casualty support team is a team of clinical, administrative, and pastoral personnel who look after the non-medical interests of Canadian patients, and their families, within another nation's MTF located along the strategic lines of communications.[99] A casualty support team would normally only be deployed when a large number of casualties is expected. For example, during the CAF's operations in Afghanistan a casualty support team was deployed to the United States military's Landstuhl Regional Medical Center in Germany.

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[97] NATO*Term*, record 25638.
[98] CF H Svcs Gp Order 6000-25 *Patient Tracking* provides limited direction on patient tracking for deployed operations.
[99] DTB, record 47817.

Medical Property Exchange

0753. Some non-expendable medical or dental equipment, such as monitors and ventilators might have to follow the patient throughout the evacuation. In addition, some general stores items such as stretchers and blankets are quickly depleted as patients are evacuated rearward. A robust property exchange system is required to ensure that items removed from ambulances and forward MTFs are replaced.[100] Normally, the property exchange is conducted wherever a patient is transferred between ambulances or to a MTF.

[100] AMedP-1.12 *Medical and Dental Supply Procedures*.

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Chapter 8
Health Services Logistics

General

0801. HS logistics[101] includes the procurement, storage, movement, distribution, maintenance and disposition of HS material and pharmaceuticals, blood, blood components, and medical gases. For more information on HS logistics on deployed operations see A-MD-175-003/AG-001 *Medical Materiel Management*, Part 3.

0802. The HS logistics system needs to ensure the sustainability of the HS system under all operational conditions. In a coalition setting HS logistics is a national responsibility; however, within a multinational force economy of scale may result from coordinated supply of common items.

0803. The scale and scope of a HS logistics system will be mission-dependent. It must enable the contingent to be self-sufficient, from deployment through the duration of the mission, and whenever possible compliant with the principles of Good Distribution Practice.[102] It must be straightforward and reliable, capable of delivering HS supplies rapidly throughout the theatre.

0804. Emerging technologies such as 3D printing should be considered as a means of producing some HS materiel in theatre.

Characteristics of Health Services Logistics

0805. The unique characteristics of HS materiel set it apart from other commodities resulting in a separate HS logistics system. Distinguishing characteristics of HS materiel are:

a. **Protected status**. Medical and dental supplies are protected under the terms of the Geneva Conventions. They should be properly marked, and stored and distributed separately from combat supplies;

b. **Regulatory aspects**. The accounting, administration, and use of HS supplies, in particular controlled drugs and blood products, are governed by national and international regulations. The consumption and controlled disposal of HS materiel must be recorded for legal, environmental, and asset control reasons;[103]

c. **Handling requirements**. Tight controls and specialized management are required for HS supplies due to the technical and perishable nature of the materiel, especially, its often-limited shelf life and its sensitivity to storage, transport, and environmental conditions; and

d. **Clinical Importance**. Seemingly insignificant items can have true life-and-death importance. There is a complex interdependence between treatment capability and the availability of HS materiel. The HS logistics system must contain the knowledge and responsiveness to meet short notice clinical demands.

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[101] NATO uses the term Medical Logistics.
[102] Good Distribution Practice is an internationally accepted quality warranty system for purchasing, receiving, storage and delivery of medical supplies. In Canada it is based on Health Canada *Good Manufacturing Practices* GUI-001 and *Guidelines for Temperature Control of Drug Products during Storage and Transportation* GUI-0069.
[103] CF H Svcs Gp Instruction 4200-01 *Accounting, Reporting and Handling Requirements for Surgeon General Restricted Products*.

Planning Health Services Logistics

0806. The planning and execution of HS logistics is a shared HS and Logistics responsibility. HS personnel are responsible for the identification of the requirement, the specification, and quantity of HS materiel and pharmaceuticals and will advise on prioritization of delivery. Logistic personnel are responsible for coordinating the management of HS materiel and pharmaceuticals within the overall logistic plan. HS and Logistic personnel will have shared responsibility for tracking of HS materiel and pharmaceuticals from sourcing to final disposition.

0807. HS materiel and pharmaceutical stockpile planning is aimed to ensure adequate HS supplies and equipment are available for routine and surge operations. Stockholding levels are determined by the operational viability period, casualty estimates, treatment regimes, patient return policy, resupply cycles and storage constraints. Stockholding is expressed as days of operating stock based on anticipated consumption rates. Consumption of HS materiel and consumables is unpredictable; usage is dependent on injuries sustained and treatment provided.

Blood and Blood Products

0808. The supply of blood and blood products is a critical function within HS logistics. Resuscitation and stabilization of a patient who has lost more than two units of blood are difficult, if not impossible without blood replacement. Blood and blood products are being used further forward in the battlespace than what was previously common practice.

0809. Canada is responsible for the supply of blood to Canadian MTFs. This may be arranged nationally, or through a binational or multinational agreement provided that Canadian Blood Services standards are met.

0810. The management of an in-theatre blood system requires a minimum capability of:

a. moving, storing, and distributing blood and blood components, and disposal of clinical items used in blood administration;

b. maintaining continuity of records from donor to recipient; and

c. collecting, processing, and testing blood on an emergency basis.

0811. For more information on the management of blood on deployed operations see DHSO publication *Whole Blood in an Operational Environment* available from the DHSO Blood Program Officer.

Health Services Materiel Management

0812. Medical and dental materiel is obtained directly from Canada, from local sources, from allied nations, or a combination thereof. While certain medical and dental materiel items may be obtained through procurement in theatre, consideration must be given to the technical expertise, production capability, and quality control of local suppliers. Unless approved previously for use by the CAF, foreign drugs should be used only in emergencies and locally procured items should be identified and stored separately from those manufactured in Canada.

0813. The CAF HS logistics does not have dedicated transportation assets. Medical and dental materiel from Canada is delivered through a national-level logistics capability, using sea, land, or air transportation as appropriate via strategic lines of communication.

0814. Generally within theatre, the HS logistics system is established along the lines of MEDEVAC. MEDEVAC assets are used for both delivery and back loading of HS materiel.

0815. In many operations a distinct HS logistics chain is not possible. The movement of HS supplies forward may be wholly dependent on the general logistics system.

0816. **Biomedical waste**. A plan to address the handling and disposal of regulated medical and radiological waste must be incorporated in the HS logistic support plan. It must be designed to prevent pollution, protect the environment, comply with regulatory guidance and policy, protect the deployed force, and be in compliance with Canadian and host-nation laws. AJEPP-5, *Joint NATO Waste Management Requirements During NATO-Led Military Activities*, Annex D Part D on Medical (Clinical) Wastes, and the Canadian Council of Environmental Ministers *Guidelines for the Management of Biomedical Waste in Canada* (1992) provide guidance.

0817. **Disposal**. Disposal of HS materiel can be done through either donation [*see* paragraph 0819], destruction, or return to Canada. At the end of a mission, the CF H Svcs Gp HQ J4 is responsible to provide the disposal instruction for Class VIII, Medical Supplies (as an annex to the mission closure material and infrastructure disposal directive). The annex will provide disposal instructions for pharmaceuticals, medical supplies (accountability codes C and D), medical equipment (accountability codes A and B), and controlled substances including items controlled by the Surgeon General.

0818. Pharmaceuticals and other medical materiel may pose serious environmental and health hazards if disposed of improperly, thus requiring controlled disposal methods. Expired drugs or materiel are not given to any external agency, even for humanitarian reasons, but rather are disposed of in accordance with CAF Surgeon General Instructions. Disposal of narcotics and other controlled drugs is to be conducted in accordance with CF H Svcs Gp Instruction 4200-44.

0819. **Donations**. Certain medical equipment, consumables, and pharmaceuticals may be donated to local agencies, normally at the end of a mission. Direction on what may be donated, the regulations governing the donations, and the appropriate approval authority must be addressed through CF H Svcs Gp HQ J4 Medical Operations and Plans.

Airworthiness of Medical Equipment

0820. Any medical equipment that may travel with a patient in any aircraft (rotary or fixed wing) must be RCAF certified as airworthy for the type of aircraft.

Implications of the Law of Armed Conflict

0821. Medical and dental materiel captured from opposing forces are neutral and protected property under the LOAC. They are not to be intentionally destroyed. Confiscated or captured medical and dental materiel is to be back loaded to the nearest medical equipment depot for analysis and classification.

0822. Captured supplies, if suitable, may be used by retained HS personnel to treat PWs or to provide aid to the civilian population or refugees. The materiel should first be used to treat opposing forces sick and injured, and only after their needs have been met should the supplies be used to treat others. If the items are considered to be unfit for use they may be abandoned for opposing forces use following a command decision to do so.

Forward Medical Equipment Depot

0823. When deployed, a Forward Medical Equipment Depot (FMED) is the main supplier for CAF HS elements. Its staffing level will vary depending on the mission size and requirements.

An FMED will generally be co-located with a Role 2E or Role 3 MTF. The functions of an FMED are:

a. the acquisition of pharmaceuticals and medical/dental supplies from the Central Medical Equipment Depot or if required, from alternate sources of supplies such as:

   (1) UN medical or dental provisioning points;

   (2) allies or host-nation forces; and

   (3) local civilian sources.

b. the provision of medical resupply (including oxygen) for routine and emergency request on a 24/7 basis;

c. the operational-level repair and maintenance of medical and dental equipment;

d. the coordination of transportation requirements to theatre with movement authorities;

e. the coordination of delivery of blood supply/products and cold chain management of temperature sensitive pharmaceuticals;

f. the holding and distribution of CBRN medical countermeasures as directed;

g. the maintenance of medical supply accounts of medical units/sub-units; and

h. the disposal of medical materiel at mission closure as directed by the CF H Svcs Gp J4.

0824. FMED detachments may be required at operational support hubs along the strategic lines of communications.

Health Services Logistics Standardization and Interoperability

0825. When part of a multinational force, a large proportion of common medical and dental materiel may be obtained through an allied medical material distribution system. To promote interoperability, every effort should be made, through standardization, to reduce the number of uniquely Canadian items.

0826. The CF H Svcs Gp has adopted insignia and colour marking of containers for health-care materiel in accordance with AMedP-1.5, *Identification of Medical Materiel for Field Medical Installations*. Also, Canada has adopted the *Anatomical Therapeutic Chemical Classification Index* administered by the World Health Organization. While in theatre, the generic name of pharmaceuticals will be used to determine equivalence with allied nations.

0827. AMedP-1.12, *Medical and Dental Supply Procedures* provides guidance for the following key aspects of medical and dental supply:

a. property exchange or replacement of medical and dental non-expendable items (e.g. ventilators, stretchers) that are required to accompany patients during evacuation within the area of operations to the next appropriate medical or dental facility;

b. information required to be placed on medical and dental supplies and pharmaceuticals, including instructions concerning specific conditions for storage or transportation (humidity or temperature). The date of production, lot number and expiry should appear on all items; and

c. methods of identification.

General Logistics Functions Impacting on Health Services

0828. The following general logistics functions require particular attention when planning and establishing MTFs:

a. **Food services**. Patient food services includes post-operative and convalescent diets, 24-hour meal availability and surge capacity. Religious and cultural dietary considerations should be taken into account. A clinician authorizes the special ration requirements for patients;

b. **Laundry**. Health elements require laundry support including medical and dental garments, theatre linen, bed linen, and patient clothing. Operational conditions dictate the most suitable laundry method;

c. **Showers and latrines**. Ambulatory and non-ambulatory patients require showers and latrines. In order to prevent cross infection and contamination separate facilities should be provided for patients and HS staff; and

d. **Water**. MTFs, particularly those with surgical capability, require large amounts of clean water. Coordination with logistics and engineer elements is crucial.

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Glossary

Note: Definitions contained in this Glossary are derived from a number of sources – internal and external. Where the term originates in this publication, no source is indicated. Definitions taken from external sources are indicated in footnotes at the end of each definition, utilizing the following abbreviations:

- NATO*Term*: *The Official NATO Terminology Database*
- DTB: *Defence Terminology Bank*

aeromedical evacuation (AE)

The movement of casualties under medical supervision to and between medical treatment facilities by air transportation. (DTB, record 3308)

forward aeromedical evacuation

The phase of aeromedical evacuation that provides transport with in-flight care for patients to the initial medical treatment facility in theatre or between points on the battlefield. (DTB, record 4324)

tactical aeromedical evacuation

The phase of aeromedical evacuation that provides transport for patients between medical treatment facilities from the combat zone or area of operations to points outside that zone or area, and between points within the communication zone. (DTB, record 5486)

strategic aeromedical evacuation

The phase of aeromedical evacuation that provides transport for patients from overseas areas to the home nation, another country or a temporary safe area. (DTB, record 2597)

aeromedical staging facility (ASF)

A medical treatment facility, located on or near an aerodrome, that provides medical care and administrative support for patients in an aeromedical evacuation system. (DTB, record 3312)

ambulance

A ground, air or sea conveyance manned and equipped to provide in-transit care, for the sick, injured and wounded:

a. **Ground**: To include road/off road vehicles (wheeled/tracked) and railways.
b. **Air**: Fixed and rotary wing aircraft equipped and designated for medical evacuation.
c. **Sea**: Any vessel (ship, boat, hovercraft, but not hospital ships) intended for medical evacuation to a medical treatment facility.

(DTB, record 20039)

Note: If dedicated to the ambulance role, air ambulances may be protected with the Geneva symbols, but if used for multiple roles, this use would be illegal. However, the absence of such markings does not prevent the aircraft from being considered an air ambulance when used for patient evacuation. The distinction between an air ambulance and another aircraft used for casualty evacuation is that the air ambulance is manned and equipped to provide in-transit care.

casualty

1. As regards the medical system, any person who is lost to the organization by reason of having been declared dead, wounded, injured, or diseased. (NATO*Term*, record 25565)

2. Any injury to or illness of an officer or non-commissioned member whether or not it is fatal, and includes the absence of a missing officer or non-commissioned member. (DTB, record 23334)

3. With regard to the personnel system, a person who is lost to an organization by reason of having been declared dead, wounded, injured, diseased, detained, captured or missing. (DTB, record 23334)

casualty estimate

In operations planning and health services planning, a prediction of total losses of personnel foreseen in an operation due to various causes. (DTB, record 15696)

casualty evacuation (CASEVAC)

The non-medically supervised process of moving a person who is wounded, injured or ill.
Note: This concept is different from "medical evacuation." (NATO*Term*, record 20920)

casualty rate

The proportion of losses of personnel or materiel, normally expressed as a percentage, due to various causes within a specified period of time. (NATO*Term*, record 17701)

casualty support team

A team of medical, administrative and pastoral personnel who look after the non-medical interests of Canadian patients, and their families when required, within another nation's medical treatment facility located along the strategic lines of communication. (DTB, record 47817)

command

1. The creative expression of the human will necessary to accomplish a mission through the exercise of the authority vested by the national government and the chain of command for the direction, coordination and control of military forces. (DTB, record 26200)

2. The authority vested in an individual of the armed forces for the direction, coordination, and control of military forces. (DTB, record 27866)

command and control (C2)

The exercise of authority and direction by a commander over assigned, allocated, and attached forces in the accomplishment of a mission. (DTB, record 5950)

continuity of care

A medical support principle that states that relevant, constant and progressive care must be given to a patient during his entire medical treatment, whether in a medical treatment facility or in transit. (NATO*Term*, record 27532)

control

The authority exercised by commanders over part of the activities of subordinate organizations, or other organizations not normally under their command, which encompasses the responsibility for implementing orders or directives.
Note: All or part of this authority may be transferred or delegated.
(DTB, record 375)

damage control resuscitation (DCR)

A systematic approach to major exsanguinating trauma incorporating prioritized non-surgical interventions to decrease mortality and morbidity. This is accomplished through aggressive hemorrhage control and blood transfusion.

damage control surgery (DCS)

A surgical intervention where the completeness of the immediate surgical repair is sacrificed to achieve haemorrhage and contamination control, in order to avoid a deterioration of the patient's condition.
Notes:
1. The deterioration of a patient's condition is the result of the initial trauma combined with possible physiological consequences of surgery.
2. Depending on the specific and individual requirement the aim is to be able to provide damage control surgery within 1 hour but no later than 2 hours of wounding.
(NATO*Term*, record 6321)

definitive treatment

The medical care provided to return the patient to the highest degree of mental and physical capability possible. (NATO*Term*, record 27522)

emergency care

Medical interventions to provide immediate assistance to prevent the loss of limb, function, or body tissue, or to prevent undue suffering.

environmental health

The assessment and control of all physical, chemical and biological factors external to a person that can potentially affect health. (NATO*Term*, record 25915)

evacuation

The process of moving any person who is wounded, injured, or ill to and/or between medical treatment facilities. (DTB, record 39726)

first aid

The first measures to assist or relieve individuals suffering from injuries, diseases, and/or contaminations. (NATO*Term*, record 36351)

flight surgeon

A physician specially trained in aviation medicine. (NATO*Term*, record 4250)

force health protection (FHP)

Preventive and reactive measures taken to counter the effects of the environment, occupational health hazards and disease. (DTB, record 27413)

health hazard

Any element, within a defined space and time, with the potential to cause harm to health. (NATO*Term*, record 38849)

health risk

The combination of the probability of an incident and any health consequences it may have. (NATO*Term*, record 38847)

health services (HS)

Medical or dental services intended to contribute directly or indirectly to the health and well-being of patients or a population.
Note: Health services are not restricted to clinical, curative or preventive services, and include food inspection and environmental protection.
(DTB, record 43636)

health threat

A circumstance that can cause harm to health and that is linked to an adversary's intent and/or capability, as well as a target's vulnerability. (NATO*Term*, record 38848)

host nation (HN)

A nation that, by agreement allows:
a. another nation’s forces to operate on or from, be located on, or transit through its territory; or
b. another nation’s materiel to be located on or transported through its territory.
(DTB, record 4465)

lead nation

The nation that provides the essential political and military leadership to plan and execute a multinational operation.
Note: A lead nation will normally provide some significant capabilities for the execution
(DTB, record 31028).
[In an HS context, this would be the lead nation of a multinational medical unit.]

mass casualties (MASCAL)

Any number of casualties produced in a relatively short period of time that overwhelms the available medical and/or logistic support capabilities. (DTB, record 4735)

mass casualty situation

A situation in which an initial disparity exists between the casualty load and the local medical capacities and capabilities. (NATO*Term*, record 25646)

medical confidentiality

The principle that prevents the disclosure of medical information to an individual or organization that does not have a medical need-to-know. (NATO*Term*, record 25634)

medical intelligence

Intelligence derived from medical, bio-scientific, epidemiological, environmental and other information related to human or animal health.
Note: This intelligence, being of a specific technical nature, requires medical expertise throughout its direction and processing within the intelligence cycle.
(DTB, record 31949)

medical regulating

The measures used for coordinating and controlling the movement of patients through the various lines of medical support.
Note: Formerly referred to as patient regulating.
(DTB, record 33237).

medical treatment facility (MTF)

A facility established to provide medical and/or dental care. (DTB, record 47830)

multinational medical unit

A unit formed when two or more nations agree to provide medical support. (NATO*Term*, record 26130)

multinational operation

An operations conducted by forces of two or more nations acting together. (DTB, record 3826)

operational command (OPCOM)

The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reallocate forces, and to retain or delegate operational and/or tactical control as the commander deems necessary.
Notes:
1. Operational command does not include responsibility for administration.
2. In the NATO definition, the expression "to reassign forces" is used rather than "to reallocate forces." (DTB, record 19477)

operational control (OPCON)

The authority delegated to a commander to direct allocated forces to accomplish specific missions or tasks that are usually limited by function, time, or location, to deploy units concerned, and to retain or delegate tactical control of those units.
Notes:
1. Operational control does not include authority to assign separate employment of components of the units concerned, neither does it, of itself, include administrative or logistic control.
2. In the NATO definition, the expression "forces assigned" is used rather than "allocated forces". (DTB, record 1056)

patient

Any person who has entered the medical care system for diagnosis and/ or treatment [and who has not died nor been discharged]. (DTB, record 20009)

patient flow

The movement of patients through a system of treatment and evacuation. Usually refers to routing through roles of medical support with increasing capabilities. (DTB, record 20013)

patient return policy (formerly: evacuation policy)

Command decision indicating the length in days of the maximum period of non-effectiveness that patients may be held within the command for treatment; patients who, in the opinion of responsible medical officers, cannot be returned to duty status within the period prescribed are evacuated by the first available means, provided the travel involved will not aggravate their state. (DTB, record 7814)

patient tracking

The precise and continuous monitoring of the location and the intended destination of the patient in the medical treatment and evacuation chain. (NATO*Term*, record 25638)

population at risk (PAR)

A group of individuals exposed to conditions which may cause injury or illness. (NATO*Term*, record 24624)

preventive medicine (PMed)

The branch of medicine that seeks to protect, promote and maintain health and well-being and to prevent disease, injury, disability and death. (NATO*Term*, record 26014)

primary health care

The provision of integrated, accessible health care services by clinical personnel trained for comprehensive first contact and the continuing care of individuals experiencing signs and symptoms of ill health or having health concerns. Note: Primary health care includes health promotion, disease prevention, patient education and counselling, and the diagnosis and treatment of acute and chronic illness. (NATO*Term*, record 26132)

professional and technical control

Prof Tech control refers to all aspects of the provision of clinical care, and includes policies on clinical standards and clinical treatment; moreover, in the HS environment, Prof Tech control also refers to the regulation and management of medical and dental materiel required to provide health care. There are two distinct Prof Tech authorities in the CF H Svcs Gp, the Surgeon General and the Chief Dental Officer. The senior Medical Officer and the senior Dental Officer present in theatre are the local Prof Tech authorities.

restriction of movement

A measure for controlling the spread of a contagious disease by restricting contact between healthy groups of personnel and those who either have, or are suspected of having, contracted a contagious disease. (NATO*Term*, record 24883)

role of medical support

A category that identifies the functions and capabilities of a medical unit or element.
Notes. 1. Medical care is categorised into four roles (role 1, role 2, role 3, and role 4).
2. Most of the care capabilities of each role are intrinsic to the next higher role.
(NATO*Term*, record 26136)

Role 1 Medical Support

Medical support that provides routine primary health care, specialized first aid, triage, resuscitation and stabilisation. (NATO*Term*, record 26133)

Role 2 Medical Support

Medical support that provides a capability for the reception and triage of casualties, as well as the structure to perform treatment of wounded, injured and diseased at a higher technical level than role 1, including resuscitation and surgery. (NATO*Term*, record 26134)

Role 3 Medical Support

Medical support that provides the structure for deployed hospitalization with the elements required to support it, including a mission-tailored variety of clinical specialties and support functions. (NATO*Term*, record 27544)

Role 4 Medical Support

Medical support that provides the full spectrum of definitive medical care that cannot be deployed in the theatre or is too time-consuming to be conducted there. (NATO*Term*, record 26135)

secondary health care

The provision of specialised clinical care requiring training and equipment levels beyond that which could normally be provided at the level of primary care. (NATO*Term*, record 26137)

Senior Medical Authority (SMA)

Senior Medical Authority is the generic term applicable at any level of command to the individual holding professional technical authority over the clinical aspects of medical support. This individual is also the person responsible for provision of clinical advice to the supported commander.

unit medical station (UMS)

1. A medical facility formed by the medical element of a unit. It provides medical services at the unit level and, during combat, is concerned mainly with collection of the wounded, provision of emergency care, and their preparation for evacuation (DTB, record 15882) (*Requires update*)

2. Medical facility with a land force unit and operated under the command of a Medical Officer. As a rule, the Unit Medical Station is the first medical facility where a sick or injured casualty receives medical treatment carried out by or under the supervision of a physician. The ship sickbay and Airfield Medical Station are maritime and air force equivalents.

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List of Abbreviations

AAMedP	Allied Air Medical Publication
ABCANZ	America, Britain, Canada, Australia, and New Zealand Armies Program
AE	aeromedical evacuation
AFMS	airfield medical station
AJMedP	Allied Joint Medical Publication
AJP	Allied Joint Publication
AMA	Aerospace Medical Authority
AMedP	Allied Medical Publication
AOR	area of responsibility
ASF	aeromedical staging facility
ATP	Allied Technical Publication
BMS	brigade medical station
C2	command and control
CAF	Canadian Armed Forces
CANSOFCOM	Canadian Special Operations Forces Command
CASEVAC	casualty evacuation
CBRN	chemical, biological, radiological and nuclear
CCP	casualty collection point
CF FORT	Canadian Forces Forensic Odontology Response Team
CFHIS	Canadian Forces Health Information System
CFHSP	Canadian Forces health Services Publication
CFINTCOM	Canadian Forces Intelligence Command
CFJP	Canadian Forces Joint Publication
CF H Svcs Gp	Canadian Forces Health Services Group
CIS	communication and information system
CJOC	Canadian Joint Operations Command
CMERT	Canadian Medical Emergency Response Team
CO	commanding officer
DAOD	Defence Administrative Orders and Directives
DCR	damage control resuscitation
DCS	damage control surgery
DFHP	Director Force Health Protection
DHHAT	Deployable Health Hazard Assessment Team
DHSO	Director Health Services Operations
DTB	Defence Terminology Bank
FHP	force health protection
FLS	forward logistics site
FMED	Forward Medical Equipment Depot
FST	forward surgical team
GBA+	Gender Based Analysis Plus
HQ	headquarters
HS	health services

HSU	health services unit
JTF	Joint Task Force
JTFSC	Joint Task Force Support Component
JTF Surg	Joint Task Force Surgeon
LOAC	Law of Armed Conflict
MASCAL	mass casualty
MEDCC	medical coordination cell
MEDEVAC	medical evacuation
MHC	military health care
MRoE	medical rules of eligibility
MSRT	mobile surgical and resuscitation team
MTF	medical treatment facility
NATO	North Atlantic Treaty Organization
NMLO	National Medical Liaison Officer
NORAD	North American Aerospace Defence Command
OPCOM	operational command
OPCON	operational control
OPP	operation planning process
PAR	population at risk
PECC	patient evacuation coordination cell
PMed	preventive medicine
POI	point of injury
Prof Tech	professional technical
PW	prisoner of war
QR&O	Queen's Regulations and Orders
RCAF	Royal Canadian Air Force
Role 2B	Role 2 Basic
Role 2E	Role 2 Enhanced
SMA	senior medical authority
SOF	special operations forces
STANAG	(NATO) standardization agreement
UMS	unit medical station
UN	United Nations

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List of References

Canada

A. QR&O 3.33 *Command in the Canadian Forces Medical Services*

B. QR&O 34.011, *Responsibilities of Medical Officers*

C. QR&O 35.02, *Responsibilities of Dental Officers*

D. Canadian Forces Administration Order 24-1 *Casualties – Reporting and Administration*

E. DAOD 5009-1 *Personnel Readiness Verification Screening*

F. Joint Doctrine Note 02-0214 *Command and Control of Joint Operations*

G. Joint Doctrine Note 2017-01 *Child Soldiers*

H. Joint Doctrine Note 2017-02 *Cyber Operations*

I. CFJP 01 *Canadian Military Doctrine* (Sep 2011)

J. Chief of the Defence Staff *Directive for Integrating UNSCR 1325 and Related Resolutions into CAF Planning and Operations*

K. Chief of the Defence Staff *Directive for the Implementation of the Safe Schools Declaration*

L. CFJP 3-0 *Operations* (Sep 2011)

M. CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels* (Aug 01)

N. CFJP 3-4.1 *Humanitarian Operations and Disaster Relief Operations* (May 2005)

O. CFJP 3-8.1 *Chemical, Biological, Radiological and Nuclear Defense Operations*

P. CFJP 3-14 *Prisoners of War and Detainees* (Aug 2004)

Q. CFJP 4-0 *Support* (Oct 2016)

R. CFJP 5-0 *The Canadian Forces Operational Planning Process* (Change 2, Apr 2008)

S. *Integrating Gender Perspectives in Operations* *(A Gender Aide-memoire for the Canadian Armed Forces)*

T. CFHSP-1 *Health Services Planning*

U. A-MD-175-003/AG-001 *Medical Materiel Management*

V. B-GL -322-010/FP-001 *Stability Activities and Tasks*

W. B-GL-323-000/FP-001 *Security Force Capacity Building* (draft)

X. B-GL-334-001/FP-001 *Standing Operating Procedures (SOP) For Land Operations*

Y. B-GL-364-001/FP-001 *Camouflage and Concealment*

Z. B-MD-005-000/FP-001 *Aeromedical Evacuation Manual*

AA. CJOC *Standing Operations Order for Domestic Operations*

AB. CJOC *CDIO 1000 series – Section 4 – Personnel Services*

AC. CF HS Advisory 4070-02 *Infection Prevention and Control in the Deployed Healthcare Environment*

AD. CF H Svcs Gp Instruction 2000-09 *Incident Management – Patient Safety*

AE. CF H Svcs Gp Instruction 4000-17 *Post-deployment Medical Screening Assessments*

AF. CF H Svcs Gp Instruction 4200-01 *Accounting, Reporting and Handling Requirements for Surgeon General Restricted Products*.

AG. CF H Svcs Gp Instruction 4200-44 *Narcotics and Controlled Drugs*

AH. CF H Svcs Gp Instruction 5020-20 *Disclosure of Personal Health Information*

AI. CF H Svcs Gp Instruction 5020-59 *Professional/Technical Governance of Canadian Forces Health Services Group*

AJ. CF H Svcs Instruction 7000-33 *Medical Intelligence - Collection, Reporting, Analysis and Dissemination*

AK. CF H Svcs Gp Order 6000-25 *Patient Tracking*

AL. CF H Svcs Gp Policy 1001-04 *Dental Professional & Technical Responsibilities at Strategic/Operational Levels*

AM. CF H Svcs Gp Policy 1023-04 *Dental Screening Examination for International Operational Deployments*

AN. CF H Svcs Gp Policy 1023-08 *Forensic Odontology*

AO. CFMO 13-6 *Aeromedical Evacuation*

AP. DHSO Publication *Whole Blood in an Operational Environment* (available from the Blood Program Officer)

AQ. Canadian Council of Environmental Ministers Guidelines for the Management of Biomedical Waste in Canada (1992)

NATO

STANAGs are routinely reviewed and updated. The current version of most can be found on the NATO Standardization Organization (NSO) public website. Any not available on the public site can be found on the NSO protected site (requires login).

AR. IMSM-0028-2020 (INV) *Bi-SC Capability Codes and Capability Statements* 22 January 2020

AS. AJP-4.10, *Allied Joint Medical Support Doctrine* (STANAG 2228)

AT. AAMedP-1.1, *Aeromedical Evacuation* (STANAG 3204)

AU. AJEPP-5, *Joint NATO Waste Management Requirements During NATO-Led Military Activities* (STANAG 2510)

AV. AJMedP-2, *Allied Joint Doctrine for Medical Evacuation* (STANAG 2546)

AW. AJMedP-3, *Allied Joint Medical Doctrine for Medical Intelligence* (STANAG 2547)

AX. AJMedP-3 Standards Related Document 1, *Guide to Medical Intelligence* (STANAG 2547)

AY. AJMedP-4, *Allied Joint Medical Force Health Protection Doctrine* (STANAG 2561)

AZ. AJMedP-4 Standards Related Document-4, *Field Hygiene and Sanitation* (STANAG 2561)

BA. AJMedP-5, *Allied Joint Doctrine for Medical Communications and Information Systems* (STANAG 2562)

BB. AJMedP-6, *Allied Joint Civil-Military Medical Interface Doctrine* (STANAG 2563)

BC. AJMedP-7, *Allied Joint Medical Doctrine for Support to Chemical, Biological, Radiological, and Nuclear (CBRN) Defensive Operations* (STANAG 2596)

BD. AJMedP-8, *Allied Joint Doctrine for Military Health Care* (STANAG 2873)

BE. AJMedP-9, *Multinational Medical Support* (STANAG 6505)

BF. AMedP-1.5, *Identification of Medical Material for Field Medical Installations* (STANAG 2060)

BG. AMedP-1.7, *Capability Matrix* (STANAG 2560)

BH. AMedP-1.8, *Skills Matrix* (STANAG 2560)

BI. AMedP-1.10 *Medical Aspects in the Management of a Major Incident/Mass Casualty Situation* (STANAG 2879)

BJ. AMedP-1.12, *Medical and Dental Supply Procedures* (STANAG 2128)

BK. AMedP-3.1, *Military Forensic Dental Identification* (STANAG 2464)

BL. AMedP-5.1, *Patient Data Exchange Format for Common Core Information* (STANAG 2231)

BM. AMedP-5.2, *Standards for Data Interchange Between Health Information Systems* (STANAG 2543)

BN. AMedP-5.3, *Development and Implementation of Telemedicine Systems* (STANAG 2517)

BO. AMedP-7.1 *Medical Management of CBRN Casualties* (STANAG 2461)

BP. AMedP-7.1-3, *CBRN Medical Report Form* (STANAG 2461)

BQ. AMedP-8.1, *Documentation Relative to Initial Medical Treatment and Evacuation* (STANAG 2132)

BR. AMedP-8.2, *Basic Military Medical Report* (STANAG 2348)

BS. AMedP-8.6, *Forward Mental Healthcare* (STANAG 2564)

BT. AMedP-8.8, *Medical Warning Tag* (STANAG 2347)

BU. AMedP-8.10, *A Psychological Guide for Leaders across the Deployment Cycle* (STANAG 2565)

BV. AMedP-8.13, *The Extent of Dental and Maxillofacial Treatment at Role 1-3 Medical Treatment Facilities* (STANAG 2453)

BW. AMedP-9.1, *Modular Approach for Multinational Medical Treatment Facilities (MTF)* (STANAG 6506)

BX. ATP 79, *Orders for the Camouflage of Protective Medical Emblems on Land in Tactical Operations* (STANAG 2931)

BY. ATP-92, *Emergency Burial Procedures* (STANAG 2070)

BZ. ATP-97 *NATO Land Urgent Voice Messages (LUVM) Pocket Book* (STANAG 2627)

ABCANZ

Available on the ABCANZ website (requires login)

CA. Publication 256 Ed 3 *Coalition Health Interoperability Handbook*

CB. Publication 365 *Health Support to Detainee Operations*

CC. Report 207 *Health Coordination Center – ABCANZ 2 Star Headquarters*

United Nations

CD. World Health Organization Anatomical Therapeutic Chemical Classification