CFHSP 1 Health Services Planning

Government of Canada | Gouvernement du Canada

B-MD-101-007/FP-001

Canadian Forces Health Services Publication

CFHSP 1
Health Services Planning

Custodian: Canadian Forces Health Services Group
Promulgated: 31 July 2018

Issued on the authority of the Commander Canadian Forces Health Services Group

To ensure you are using the most current version of this publication, refer to the CF Health Services Group doctrine DIN website at:

To be developed by SO JDAI

Cette publication est également disponible en français (B-MD-101-007/FP-002).

NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originalement doivent continuer de s'appliquer.

Strategic Concepts
Canadian Forces Health Services Group Headquarters
Department of National Defence
Carling Campus
60 Moodie Drive
Ottawa, Ontario K2H 8E9

1st Edition, 2018

Commander

Canadian Forces
Health Services Group
NDHQ/Carling Campus
101 Colonel By Drive
Ottawa ON K1A 0K2

Commandant

Groupe des Services de santé
des Forces canadiennes
QGDN/Complexe Carling
101, promenade Colonel-By
Ottawa (Ontario) K1A 0K2

3000-1

17 October 2018

LETTER OF PROMULGATION – CANADIAN FORCES HEALTH SERVICES PUBLICATION 1 HEALTH SERVICES PLANNING

1. Canadian Forces Health Services Publication 1 (CFHSP-1) Health Services Planning is a new keystone publication for the Canadian Forces Health Services Group (CF H Svcs Gp) that describes the planning necessities of health support to single element, joint, multinational and/or joint multinational exercises and operations. It will comprise the first reference on the manner in which Operational level health planning support will be provided, and is fully adaptable for lower levels. It will also provide the doctrinal framework for future Health Services planning publications.

2. The agility of doctrine development is very important and we encourage Commanders and Commanding Officers to use every opportunity to validate and analyze the concepts put forth in this publication to refine future iterations. Emphasis should be put on joint or specialized training as well as any operations that may be conducted. Lessons learned plays a key role in future support and doctrine development by compiling feedback and bringing that

3000-1

Le octobre 2018

LETTRE DE PROMULGATION – PUBLICATION DES SERVICES DE SANTÉ DES FORCES CANADIENNES 1 PLANIFICATION DES SERVICES DE SANTÉ

1. La Publication des Services de santé des Forces canadiennes1 (PSSFC-1) – Planification des Services de santé est une nouvelle publication clé pour le Groupe des Services de santé des Forces canadiennes (Gp Svc S FC), qui décrit les besoins en matière de planification du soutien en santé pour les exercices et opérations interarmées, multinationaux, interarmées multinationaux et/ou menés par un élément unique. La publication constituera la première référence sur la façon dont le soutien à la planification sera fourni au niveau opérationnel, et est entièrement adaptable aux niveaux inférieurs. Elle donnera aussi le cadre doctrinal pour les publications futures sur la planification des Services de santé.

2. L'élaboration de la doctrine doit être souple, et nous encourageons les commandants et les commandants d'unité à profiter de chaque occasion pour valider et analyser les concepts mis de l'avant dans cette publication afin d'améliorer les prochaines versions. Une importance particulière doit être accordée à l'entraînement interarmées ou spécialisé ainsi qu'à toute opération qui peut être menée. Les leçons retenues jouent un rôle clé dans l'établissement du soutien et de la

to the table in future doctrine cycles. Feedback from all levels is encouraged.

doctrine futurs, car elles permettent de compiler la rétroaction et de l'examiner lors des prochains cycles d'élaboration de la doctrine. Tous les niveaux sont encouragés à donner de la rétroaction.

3. Custodianship of the publication content will be maintained within the Strategic Concepts cell. CFHSP-1 Health Services Planning is effective immediately. Comments on the content should be forwarded to the Staff Officer for Joint Doctrine and Allied Interoperability, Major Rob Jensen.

3. L'unité des concepts stratégiques est dépositaire du contenu de la publication. La PSSFC-1 – Planification des Services de santé entre en vigueur immédiatement. Les commentaires sur le contenu doivent être adressés à l'officier d'état-major, Doctrine interarmées et interopérabilité interalliée, le Major Rob Jensen.

Le brigadier-général

A.M.T. Downes
Brigadier-General

This page was intentionally left blank

Preface

01. **Aim**. The aim of this Canadian Forces Health Services publication (CFHSP) is to set forth doctrine governing the planning of health services (HS) on operations at home or abroad, within the framework of either a single service, joint, multinational, or multinational joint task force.

02. **Policy context**. This publication has been harmonized with Canadian Armed Forces (CAF) joint doctrine and the environmental support doctrine publications of the Royal Canadian Navy (RCN), 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. This document only briefly addresses medical planning for chemical, biological, radiological, and nuclear (CBRN) environments. Greater detail is found in Canadian Forces Joint Publication (CFJP) 3-8.1 *Chemical, Biological, Radiological, and Nuclear Defence Operations*, AJMedP-7 *Allied Joint Medical Doctrine for Support to Chemical, Biological, Radiological and Nuclear (CBRN) Defensive Operations* (STANAG 2596), and the AMedP-7 series of CBRN standards.

04. **Scope**. CFHSP 1 *Health Services Planning* primarily focuses on planning at the operational level, but is adaptable for the tactical level. Tactical planning considerations for the employment of the field force are found CFHSP 9 *Health Services in Land Operations* (currently under development).

05. **Content Overview**. This publication is organized into the following chapters:

a. **Chapter 1 – Health Services Planning**. This chapter introduces the Operations Planning Process (OPP), and key HS personnel within HS planning.

b. **Chapter 2 – Health Services Contribution to Operational Level Planning.** This chapter describes HS's interaction with the stages of OPP.

c. **Chapter 3 – The Health Services Estimate.** This chapter details the HS estimate and general planning considerations.

d. **Chapter 4 – Planning for Specific Operations**. This chapter describes the unique aspects of different operations and key HS planning considerations.

e. **Chapter 5 – Exercise Planning and Lessons Learned**. This chapter provides planning considerations for exercises.

06. NATO Standardization Agreements (STANAG) referred to in this document have been ratified by Canada. HS related ABCANZ standards referred to in this document have been approved by the Commander, Canadian Forces Health Service Group (CF H Svcs Gp).

07. Where possible hyperlinks have been included; however, due to changing websites the links are not guaranteed.

08. The Commander CF H Svcs Gp, is the approval authority for this publication.

09. Recommendations for amendments to this publication are welcomed and should be forwarded to the CF H Svcs Gp Headquarters/Strategic Concepts/Staff Officer Joint Doctrine and Allied Interoperability.

This page was intentionally left blank

TABLE OF CONTENTS

This page was intentionally left blank

CHAPTER 1 Health Services Planning

Introduction

0101. The purpose of health services (HS) operational planning is to support the operational Commander in the accomplishment of the mission by identifying HS capability, capacity, mobility, sustainability and infrastructure necessary to medically support the operation. Taking into account the operational environment, planning must ensure that health care best practices are maintained as closely as possible to peacetime standards.

0102. The disparate nature of operations dictates that a HS plan is purpose-built for each mission. The characteristics of operations make it essential that initial outline planning is done rapidly, often with limited information and without the benefit of reconnaissance. Estimates should be sufficiently comprehensive and accurate to allow for determination of resource requirements and for initial planning to be as comprehensive as possible.

0103. CFHSP 1 aligns with CFJP 5 *The Canadian Forces Operational Planning Process*. CFHSP 1 primarily focusses on Canadian Joint Operations Command (CJOC) level planning; however, it is adaptable to any operational level planning. It also includes some discussion of tactical level HS planning in support of a Joint Task Force (JTF).

0104. The nature of the HS contribution to operational planning is twofold. First is the input of HS expertise to the general planning process. Chapter 2 describes the HS contribution during the various stages of the OPP. Second is the development of a HS Concept and HS Support Plan for the operation. Chapter 3 provides the details required to conduct the in-depth HS analysis and planning.

0105. This publication provides some information regarding HS planning for maritime operations; however, medical planners should refer to AJMedP-1 *Allied Joint Medical Planning Doctrine* for an in-depth study of the subject.

0106. With the exception of HS assets in support of RCN ships and Canadian Special Operation Forces Command (CANSOFCOM), all HS planning is the responsibility of Canadian Forces Health Service Group (CF H Svcs Gp) personnel.

Operations Planning Process (OPP)

0107. The OPP is a coordinated process to determine the best method of accomplishing assigned operational tasks and to plan possible future tasks. Having great similarity to the formal Estimate of the Situation carried out at the tactical level, the OPP is intended to be conducted collaboratively and simultaneously by all staff branches within a formation headquarters (HQ) and with significant interaction throughout the process between superior and subordinate formations and units.

0108. The OPP is a tool or framework to help commanders and staffs solve complex problems in mutually-supporting yet complementary roles. The staffs are objective and rational. They analyze facts, make logical deductions, draw conclusions, propose solutions and solve problems. Meanwhile, the Commander is more subjective and imaginative, drawing upon experience and intuition and capitalizing on opportunities to demonstrate the operational art while expressing intent. To be successful in planning, the Commander must provide guidance to the staff and monitor their progress.

0109. The OPP is formalized problem-solving incorporated with an analytical step-by-step approach to decision-making at the operational level. It applies the simple formula of first stating

the aim to be achieved, identifying and analyzing the facts, devising possible courses of action and making a plan.

0110. In accordance with the Chief of Defence Staff direction[1], Gender Based Analysis+ (GBA+) is to be integrated across all planning and execution of CAF operations, including as part of the OPP. Formation level Gender Advisors provide guidance on the process.

Types of Planning

0111. The Commander will direct the staff regarding the type of planning they are to conduct (deliberate or crisis action) and whether they are to abbreviate or modify any aspect of the OPP. Types of planning include:

a. **Deliberate planning**. Deliberate planning consists of initiating and developing plans in anticipation of a known or anticipated future event or circumstances that the Force might or could reasonably face. The outputs are Operations Plans (OPLAN) or Contingency Plans (CONPLAN); and

b. **Crisis Action planning**. Crisis action planning consists of initiating and developing plans in response to a current or developing crisis. It requires expeditious coordination and approval. While following the same stages as in deliberate planning, some activities are truncated to meet time constraints. The outputs are the same as for deliberate planning.

Responsibilities of the Operational Commander

0112. The duty of care for all personnel within a command/unit rests with the operational Commander/Commanding Officer. This encompasses the full spectrum of HS issues including mechanisms of activation and use of medical evacuation assets, medical treatment facilities, and force health protection.

0113. 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 evacuated and provided health care. 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.

0114. Although the HS staff provides advice regarding risk and possible mitigation strategies, it is the operational commander who decides on accepting the risks.[2]

0115. **Access to Commanders**. The Senior Medical Authority (SMA) requires direct unfiltered access to the Commander in order to ensure timely intervention in all health and medical support matters that require the Commander`s attention, decision or action.

0116. **Timely Publication**. Commanders should distribute warning orders, plans, operations orders and, if required, annexes and supporting plans (SUPLANs) as soon as possible. Delays, designed or instituted to achieve an elusive degree of excellence are counterproductive.

Health Services Staff[3]

0117. **Director Health Services Operations (DHSO)**. CF H Svcs Gp HQ DHSO is the medical advisor to the Strategic Joint Staff and, on behalf of Commander CF H Svcs Gp, is the approval authority for all HS plans for deployed operations and any domestic operations involving more than a single Health Services Group (HSG). DHSO is responsible for the clinical professional-

[1] See CDS Directive for Integrating UNSCR 1325 and Related Resolutions into CAF Planning and Operations
[2] See CFJP 5-2 *Risk Management for CF Operations* for information on risk management
[3] See CFJP 4.10 Chapter 3 for more information on HS staff.

technical control of deployed HS forces on behalf of the Surgeon General. DHSO has the authority to task CF H Svcs Gp HQ subject matter experts to support the OPP.

0118. **Director Dental Services**. CF H Svcs Gp HQ Director Dental Services is the professional-technical authority for all dental matters.

0119. **Director Force Health Protection (DFHP)**.[4] DFHP is the CAF force health protection (FHP) authority.

0120. **Commander HSG**. Commander 1 and 4 HSGs are the approval authority for HS plans within their area of responsibility.

0121. **Commanding Officer (CO) 1 Dental Unit** commands all dental elements not within the field ambulances, 1 Canadian Field Hospital (1 Cdn Fd Hosp), or Directorate Dental Services.

0122. **CO 1 Cdn Fd Hosp**. The CO 1 Cdn Fd Hosp commands all medical specialists and the nurse high readiness detachments, and conducts pre-deployment training for all Role 2 or 3 personnel. The CO provides planning advice on the design and employment of Role 2 and Role 3 facilities.

0123. **CJOC Surgeon**. The CJOC Surgeon is the medical advisor to CJOC and the SMA for all CJOC missions that do not otherwise have an SMA deployed. The CJOC Surgeon provides clinical advice to HS planners and clinical professional-technical governance for all CJOC missions.

0124. **CJOC Joint Health Services (JHS)**. The CJOC JHS is the lead HS planner for CJOC missions. CJOC JHS has a small staff of HS planners. Although CJOC JHS is responsive to Commander CJOC, the position reports to DHSO.

0125. **DHSO J5**. The J5 is the principle HS planner within CF H Svcs Gp HQ. The J5 coordinates the staff effort of all HQ subject matter experts in support of operational planning.

0126. **Regional Joint Task Force (RJTF) Surgeon**. The RJTF Surgeon is the medical advisor to their respective RJTF Commanders. The RJTF Surgeon's office includes HS planners.

0127. **1 Canadian Air Division (1 CAD) Surgeon**. The 1 CAD Surgeon is the medical advisor to Commanders 1 and 2 CAD and provides aerospace medicine and aeromedical evacuation (AE) advice to all medical planners. The 1 CAD Surgeon is also the North American Aerospace Command Canadian Region Surgeon. All strategic AE is planned and coordinated through the 1 CAD Surgeon and the Aeromedical Evacuation Coordination Officer (AECO). The office includes a medical planner.

0128. **RCN Surgeon**. The RCN Surgeon is the medical advisor to Commander RCN and is the CAF authority for dive and submarine medicine. Via the Fleet Support Medical Officers on each coast the RCN Surgeon provides clinical professional-technical control over all Maritime medical assets except when they are within a CJOC Joint Operations Area (JOA).

0129. **CANSOFCOM Surgeon.** The CANSOFCOM Surgeon is the medical advisor to Commander CANSOFCOM. The CANSOFCOM Surgeon provides advice regarding the employment of SOF medical elements to include the Canadian Joint Incident Response Unit.

0130. **Subject Matter Experts (SME)**. HS is highly specialised with numerous disciplines. The use of appropriate SMEs early in the planning process saves time, effort, and misunderstanding

[4] See CFJP 4-10 *Health Services* Chapter 5 for the roles of DFHP.

later. The majority of SMEs reside within CF H Svcs Gp HQ. HS planners at CJOC, RJTF, and other formation HQs have access to this expertise via reach back to the requisite SME, e.g., Preventive Medicine, Medical Intelligence, Dental, Mental Health, 1 Cdn Fd Hosp, etc.

0131. **Synchronization with Other Functional Staff**. HS staff will routinely work in close cooperation with staff functions responsible for personnel, intelligence, plans and operations, logistics, civil-military cooperation (CIMIC), legal, engineers, and communication and information systems (CIS). Coordination and collaboration spans both the vertical and horizontal levels of command. CFJP 4.10 provides guidance on the interfaces between HS and other staff elements.

Tactical Level Planning

0132. **Location of HS Planners**. At the tactical level the HS planners and the Surgeon must focus on where the majority of casualties are expected. Due to the urgency of casualty management, in order 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 supported HQ.

0133. On larger deployments there will be HS staff as part of the JTF HQ. This staff, in coordination with the CO of the JTF HS unit (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. The CO may dispatch a Liaison Officer to the tactical HQ. If more than one HS unit is deployed, a HS Group HQ should be considered.

0134. **Battle Procedure**. OPP is not conducted at unit level. Rather, planning is part of battle procedure. Battle procedure is the entire military process by which commanders receive orders, make plans, issues orders, prepare and deploy their troops, and execute their mission. The Canadian Army publication *Decision Making and Planning at the Tactical Level* (B-GL-335-001/FP-001) provides particular guidance on battle procedure at the tactical level.

0135. **Tactical Level HS Planning Considerations**. The employment of tactical HS elements is found in CFHSP 9 *Health Services to Land Operations* (in development).

Planning Resources

0136. **Doctrine and Standards**. HS planners must be familiar with the doctrine of those they support, both joint and single service, and allies. There are numerous medical related NATO STANAGs and ABCANZ[5] standards that can assist with HS planning. Also, CF H Svcs Gp has adopted numerous Canadian Army doctrine manuals for internal use. A list of resources is found in the reference section of this document.

0137. **Lesson Learned Review**. When planning for a new operation, HS planners should consult CF H Svcs Gp J7 and the NATO Centre of Excellence for Military Medicine's Lessons Learned portal to determine relevant information that may pertain to the new operation.

[5] Although ABCANZ is Army related, the standards can be used for CAF HS on Joint operations.

This page was intentionally left blank

CHAPTER 2 Health Services Contribution to Operational Level Planning

Section I – The Operations Planning Process (OPP)

Introduction

0201. This chapter details the interactions of HS planning with the full OPP as articulated in CFJP 5 Chapter 4. It will focus on planning at the operational or formation level, but includes information for planners at component, subordinate, and deployed headquarters. It is adaptable for deliberate and crisis response planning.

0202. The early consideration of HS aspects at each stage of planning is crucial to ensure a comprehensive analysis of the mission and production of a plan that can be medically supported. The disparate nature of CAF operations dictates that the HS plan is purpose-designed for each operation.

0203. During the OPP HS staff will provide input to a series of products, as identified in the following sections. The major output is the HS plan in support of the Commander's OPLAN. In order to inform the OPP the HS planner conducts a HS estimate as detailed in Chapter 3.

0204. The OPP is likely to be conducted in parallel at different levels of command. Coordination between all levels is critical.

0205. Throughout this chapter any reference to a "Commander" is the operational level or formation level commander.

HS Contribution

0206. HS does not normally conduct OPP on its own. Rather, HS planning is done in support of the operational commander's OPP. The HS staff must be intimately involved in the overall planning in close cooperation with all other staff divisions. This is to determine how their planning impacts HS considerations, and to keep them informed of how HS considerations may impact their planning. More information on this is provided in Chapter 3.

0207. The HS contribution to OPP is twofold. First, it is the **input of HS expertise** to the general planning process. Second, it is the development of a **HS Concept of Support** and a **HS Support Plan** (see Chapter 3).

Joint Operational Planning Group (JOPG)

0208. Normally a headquarters will establish a JOPG at the start of any planning cycle. The JOPG is led by the J5 who coordinates the planning effort on behalf of the Commander. The HS planner is an integral part of the JOPG.

0209. Generally there is only one HS planner as part of the JOPG. That person must ensure the proper passage of information from the JOPG to other HS staff. When necessary, HS SMEs (e.g., medical CBRN) may be requested to attend particular JOPG meetings.

Planning Sequence

0210. The OPP comprises five stages designed to allow close collaboration between all levels of command. Greater detail on each stage can be found in the CFJP 5. The HS staff will be involved in all stages.

Briefings

0211. During the OPP there is a series of briefings that keep the Commander informed and seek approval or additional guidance. HS staff may have input but will not normally have a speaking role unless there are important points for the Commander's attention, e.g., a health risk, etc.

Section II – Stages of Planning

Stage 1 - Initiation

General

0212. Operations planning may be initiated at varying levels in response to either political or military events. Normally, for CJOC missions the Chief of the Defence Staff will issue an Initiating Directive.

0213. An Initiating Directive is a generic term for the instrument issued by an Initiating Authority (IA) that triggers operations planning and it could take the form of a written directive, an OPLAN, planning guidance, warning order, or informal means such as telephone call, email or verbal instruction. The IA can be considered as being one level above the Commander who is in receipt of direction to carry out planning for and execution of an operation. In other words, the IA is the "Commander's commander" and throughout OPP is referred to as the Superior Commander. The OPP might also be started by a commander on their own initiative for the staff to carry out planning for contingencies, branches or sequels.

0214. Stage 1 is the Commander's initial assessment, assisted by a small number of key staff and advisors to understand the problem and tasks received from the Superior Commander. The Commander will look to get an appreciation of what is expected to be accomplished, what the timelines are, and begin to acquire situational awareness of the situation.

0215. The Commander will activate the planning staff usually in the form of a JOPG led by the J5. This stage includes:

a. the gathering of information pertinent and resources to be used during the OPP, e.g., information related to the conflict or event, maps, templates, publications, briefing templates, country studies, extant CONPLANs;

b. the Commander will issue parameters to the staff;

c. an Operational Liaison and Reconnaissance Team (OLRT) may be dispatched;

d. liaison with higher, lower and flanking formations may be authorized within the bounds of operational security; and

e. if a CONPLAN already exists for a given situation then it may be implemented (with revisions as required).

0216. The desired outcomes are:

a. Commander's initial planning guidance to the staff;

b. HQ battle rhythm established; and

c. an initial warning order has been released to components and supporting commands.

0217. **HS contribution**. During Stage 1 the HS staff will:

a. participate in JOPG. When required this may include SMEs, e.g., medical CBRN;

b. review the overall situation to include classified and open sources. This is a high-level understanding of the situation. It identifies factors to be further analyzed in Stage 2;

c. review extant CONPLANs if applicable;

d. identify and analyse health threats in a potential or actual crisis. Medical intelligence (Med Int[6]) staff is engaged early and often to provide assessments as required;

e. if authorized, provide a representative for the OLRT. If not authorized, provide key questions for the team;

f. identify initial health protection recommendations, including for the OLRT;

g. provide HS input to the warning order to subordinate commands;

h. if authorized, coordinate with HS and other staff in subordinate and supporting commands;

i. provide HS analysis to key strategic factors contributing to the crisis, e.g., climatic and geographic environment, public health and endemic diseases, CBRN;

j. identify key non-CAF HS actors, e.g., NATO, Coalition, host nation, international organization (IO), and non-government organizations (NGO) providing health care in the affected region; and

k. identify critical operational requirements for mission essential force capabilities, e.g., patient decontamination, forward AE, etc.

Stage 2 - Orientation

General

0218. In Stage 2, through deductive reasoning, the Commander and staff become oriented to the situation, the operational environment, the problem to be solved and the tasks to be accomplished. The staff will define the situation as it currently exists, determine what needs to happen to change the situation from its current state to the desired end state and define what the situation should look like when the operation is done. In other words, the Commander and staff must determine, "What is the mission?"

0219. Guided by the Commander, the operational estimate is a mechanism designed to draw together the vast amount of information necessary for the thorough analysis of a set of circumstances. The planning staff will conduct a detailed mission analysis to determine exactly what has to be accomplished.

0220. The mission analysis consists of an in-depth analysis of the crisis situation to determine the operational problem that must be solved and the operational conditions that must be established. It identifies the key factors that will influence the achievement of those conditions, and any limitations on the Commander's freedom of action for the development of an overall operational design. They will develop a clear and concise mission statement and begin the force identification process by providing a preliminary estimate of forces required.

[6] The abbreviation is being changed from MEDINT to Med Int. The Joint Terminology Bank will be amended.

0221. The desired outcomes of Stage 2 are:

a. an updated operational level warning order released to components and supporting commands (if necessary);

b. a mission analysis briefing. This will incorporate key deductions and analysis highlights, and seek approval of the mission statement and campaign plan;

c. the Commander releases an initial operational design and Commander's Planning Guidance (CPG) to guide development of courses of action (COA);

d. the Commander releases an Initiating Directive to provide guidance to subordinate and supporting commands to assist their planning. This initiates their mission analysis; and

e. an initial force estimate to include a rough order of magnitude provision of personnel, facilities, equipment and vehicles. As the OPP progresses a preliminary list of capabilities requirements will be refined with greater fidelity to determine the actual forces necessary to satisfy the operation designed. This will be further amplified during Stage 3 to become the Joint Statement of Operational Requirements (JSOR). In comparison to those forces presently available a shortfall will be identified and the staff may assess the initial level of operational risks as a result.

0222. **HS contribution**. During Stage 2 the HS staff will:

a. participate in JOPG to provide HS input to mission analysis (this will later inform the detailed HS planning);

b. if authorized, participate on the OLRT if not already deployed on Stage 1;

c. if authorized, liaise and coordinate with HS planners in subordinate headquarters;

d. if authorized, and within the bounds of operational security, liaise and coordinate with international actors, e.g., NATO, US;

e. confirm requirements for HS support for the pre-deployment of enabling and initial entry forces;

f. provide HS input to the updated Warning Order to subordinate commands;

g. review HS related historical analysis and lessons learned. These may be from national records or the NATO Military Medicine Centre of Excellence Lessons Learned Database;

h. conduct medintel[7] appreciation for effects of adversary's weapons;

i. identify HS related key factors, if any. These are only the major issues of which other planners should be aware. This will be done in detail in the HS estimate (see Chapter 3);

j. identify HS assumptions[8] and critical operational requirements to include Commander's Critical Information Requirements (CCIR). HS related CCIRs may have critical importance in Humanitarian Operations and Disaster Relief (HODR) operations, and in a CBRN threat environment;

[7] Medintel is the products and process whereas the abbreviation Med Int refers to the staff/cell.

[8] Assumption - In planning, a supposition made about the current situation and/or the future course of events to complete an estimate of the situation and decide on the course of action.

k. identify the impact of limitations (constraints[9] and restraints[10]) on HS planning;

l. identify any HS limitations that may impact the operational planning;

m. identify HS related operational risks, including mitigation strategies. The Commander may have to take into account the impact on their scheme of manoeuvre of any limitations in treatment and evacuation capabilities and FHP considerations;

n. provide HS input to operational design. This will likely be limited except in HODR operations, and capacity building missions;

o. provide HS input to the overall GBA+ lead by the formation Gender Advisor;

p. identify HS component of the estimate of initial force/capability and command and control (C2) requirements;

q. contribute to and participate in mission analysis brief;

r. provide HS input to the Initiating Directive to subordinate headquarters; and

s. start full HS estimate (see Chapter 3).

Stage 3 - Courses of Action Development

0223. After appreciating the Commander's planning guidance, the JOPG brainstorms possible COAs to achieve the mission. These will be analysed and compared against each other and the opposing COAs. Stage 3 concludes with the Commander's decision on a COA and the development of a Concept of Operations (CONOPS). The operational CONOPS should be developed in collaboration with subordinate and supporting commands.

0224. The CONOPS is the formal expression of the Commander's intent for the conduct of the campaign or operation, including the deployment, employment, and sustainment of forces. The draft CONOPS also provides the basis for the commencement of the development of the OPLAN.

0225. **HS contribution**. HS planners must be intimate with the main COA development in order to determine how and if a COA can be supported medically. Further detail is provided in the discussion of the HS estimate in Chapter 3.

0226. HS planners must ensure that the Commander is aware of the health implications of each COA particularly when the results of the analysis indicate that there is a significant potential for medical risk. This risk could potentially become an operational constraint or restraint.

0227. During Stage 3 the HS staff will:

a. provide medintel input to opposing force COAs;

b. provide HS input to COA development through advice on HS capabilities, capacities, timelines, etc, and by developing the HS concept in support of each COA;

c. provide HS input to COA analysis to determine if the COA is medically supportable at a level of risk acceptable to the Commander. The HS staff analyse the workload of HS assets to identify any resource shortfalls that may impact COA feasibility. In doing this

[9] Constraint - A requirement placed on a commander that dictates an action (must do).
[10] Restraint - A requirement placed on a commander that prohibits an action (must not do).

they analyse the casualty estimate, including the interdependent relationship between casualties and holding policies; the type of operation and environment; and health risk;

d. analyse health delivery alternatives to include CAF, coalition, civilian, multinational, interagency, contract and host nation options;

e. participate in wargaming of COAs to determine gaps in the HS plan, risks, and likely periods of high casualties by phase of the operation. The wargame helps refine requirements for medical treatment facility (MTF) capability, capacity, locations, and opening and closing timings, medical evacuation (MEDEVAC), medical C2, and medical logistics. It should include wargaming of potential mass casualty (MASCAL) situations;

f. provide the HS functional estimate;

g. conduct troops-to-task analysis;

h. provide HS input to and participate in the Information and Decision Briefs. Only HS information vital for the Commander's understanding of the COA is presented. This may include the medical implications, how to mitigate them, and what the impact on the health of the force may be, if they are not mitigated. Often there will be no HS input;

i. provide HS input to the selected COA (at this time, the detailed HS plan is started);

j. provide HS input to the JSOR;

k. provide HS input to the CONOPS Service Support Concept;

l. develop the CONOPS HS annex (usually the Annex K);

m. liaise with subordinate and supporting commands to include reviewing and coordinating their HS CONOPS;

n. liaise with international partners within the bounds of operational security;

o. provide HS input to CCIRs;

p. provide HS input to the Force Protection plan; and

q. provide HS input to the Civil-Military Cooperation plan.

Stage 4 – Plan Development

General

0228. During Stage 4, the approved CONOPS will be amplified into a Plan or Order. The Commander's approval of the CONOPS is a prerequisite for the full development of the plan. The Plan may be in the form of an:

a. **Operation Order (OP O)**[11] – a directive issued for the purpose of effecting the coordinated execution of an operation;

b. **Operational Plan (OPLAN)** – used to plan and prepare well in advance for a known upcoming operation; or

[11] The use of the abbreviation "OP O" is used to keep this document consistent with CFJP 5. This differs from "op O" found in the Joint Terminology Bank.

c. **Contingency Plan (CONPLAN)** – prepared for contingencies that can be reasonably anticipated. These reflect potential response options but have no specific time set for the operation.

0229. If necessary, the staff will initiate the OPP for the development of Branch Plans[12] and Sequel Plans[13] that were identified during the planning process.

0230. **HS contribution**. During Stage 4 the HS staff will:

a. participate in the Force Generation conference;

b. identify HS shortfalls within the task organization;

c. coordinate planning with relevant national and international actors;

d. coordinate planning with subordinate and supporting commands;

e. provide HS input to preliminary deployment planning to include Reception, Staging, Onward Movement (RSOM) and Integration;

f. plan the deployment of HS elements into theatre in accordance with the deployment of the operational elements by phase and location;

g. identify C2 requirements for HS support to include any arrangements for coordination and communication with non-CAF entities;

h. identify requirements for the movement of HS supplies and equipment and coordinate them with the logistics staff;

i. provide HS input to the lessons learned process;

j. provide the HS paragraph and the Annex K for the OP O, OPLAN, or CONPLAN;

k. provide HS input to other functional areas' plans, e.g., engineers, CIS, logistics, force protection, etc; and

l. provide HS input to Branch and Sequel plans.

Stage 5 - Plan Review

0231. A Plan or OP O must be reviewed regularly to evaluate its viability. The evaluation may be conducted through exercises, wargaming or staff analysis. During operations, it provides the continuous direction and guidance for the execution of the operation, to include Fragmentation Orders (FRAGO).

0232. **HS contribution**. During Stage 5 the HS staff will:

a. conduct plan review (using Phase 2-4 processes as required);

b. provide HS input to FRAGOs; and

c. identify issues for the lessons learned process.

---

[12] Branches are options within a particular phase of an operation, which are planned and executed in response to anticipated opportunity or reversal within that phase, to provide the Commander with the flexibility to retain the initiative and ultimately achieve the original objective. Branches address the question of "what if?"

[13] Sequels are options for subsequent operations within a campaign or the following phase(s) of an operation. They are planned on the basis of the likely outcome of the current operation or phase, in order to provide the Commander with the flexibility to retain the initiative and/or enhance operational tempo and ultimately achieve the objective. Sequels address the question of "what's next?"

This page was intentionally left blank

CHAPTER 3 THE HEALTH SERVICES ESTIMATE

Section I – General

Introduction

0301. Concurrent with the overall OPP, HS planners will conduct a HS estimate. This chapter provides detailed information required for HS planners to contribute to the OPP described in Chapter 2. It must be fully integrated with the planning activities conducted by the operations and support staff. Synchronization with other functional planners, higher and lower headquarters, and supporting commands is necessary to ensure unity of effort. In this chapter unless otherwise stated any reference to a commander is the operational commander. To avoid confusion, the Commander CF H Svcs Gp is referred to as the Surgeon General.

0302. The purpose of the HS estimate is to gauge the effect of friendly, enemy, natural and environmental actions upon the JTF in order to identify the concept of HS support including appropriate health protection measures and force capabilities required for the mission. It is used to verify the viability of the Commander's proposed COAs and to develop the concept of HS support for the selected COA.

0303. HS planning both informs and is informed by the OPP. During the estimate the HS planners may identify major issues that must be shared with other functional planners. Of particular concern is the requirement to identify any forecasted capability shortfall and the potential impact on their plans.

0304. The Surgeon General and DHSO will provide guidance to the HS planners. The detailed results of the HS estimate are briefed to DHSO and the Surgeon General. Only major issues are briefed to the operational Commander.

0305. Extant CONPLANs may assist in guiding planning for the current situation. CJOC has a series of domestic and expeditionary CONPLANs. Where applicable these should be reviewed at the beginning of any new planning process. Each CJOC CONPAN should have a corresponding CF H Svcs Gp Supplemental CONPLAN.

0306. The output of the HS estimate is the HS Support Plan. It will usually form an Annex within the Commander's overall plan and can be updated or replaced as the operation proceeds to ensure it adapts to changing circumstances and requirements.

Medical Intelligence (Medintel)[14, 15]

0307. It is vital to understand the environment in which the force will be operating. Early in the planning process, HS planners must engage the Med Int staff in CF Intelligence Command who will prepare assessments for the country or region such as infectious diseases, environmental and industrial health issues, other public health events, and CBRN threats, effects of adversary weapons, as well as assessment of host nation and adversary medical capabilities. This contributes to the assessment of risks, shapes COA development and determines FHP measures. Also, Med Int will answer or develop a medintel collection plan to meet the Commander's priority

[14] *DTB*, record 31949 - Intelligence concerning health services support facilities and capabilities, the impact of disease and environmental hazards on military forces, epidemiological and other health-related information. Abbreviation will be changed from MEDINT to align with the NATO change in terminology.
[15] See AJMedP-3 *Allied Joint Doctrine for Medical Intelligence*.

intelligence requirements. During operations, the Med Int staff may be located in the JTF's Joint Fusion Centre (an intelligence asset) rather than with other medical staff.

0308. Medintel products may be attached as an appendix to the HS Annex.

Reconnaissance

0309. Reconnaissance can be an important part of early planning at all levels. The aim is to confirm and update the medical information picture, confirm availability and suitability of HS resources in the theatre, and identify potential health hazards. In HODR operations the reconnaissance assesses the health needs of the affected population.

0310. A HS planner should routinely accompany both strategic and operational reconnaissance parties. Depending on the level and scope of the reconnaissance, the HS reconnaissance team may comprise a HS planner, a medical officer, and/or a Preventive Medicine representative. Due to the unique space, equipment and power requirements of a Role 2 or Role 3 MTF, a 1 Cdn Fd Hosp SME should be included on the reconnaissance when these facilities will be deployed.

0311. See AMedP-3.2 *Medical Information Collection and Reporting* for what type of information may by sought during a reconnaissance. It provides NATO standardised documents guiding medical information collection.

Staff Checks

0312. When planning, staff checks may be an important tool for determining gross requirements, resource availability, and possible commitments. A staff check is not a detailed estimate. It will often be necessary to trade accuracy and detail for speed and timeliness in preparing staff checks so as not to delay the decision-making process. A staff check does not commit resources.

Requests for Information (RFI)

0313. Throughout the planning process, planners will require information from other functional planners and SMEs. Once an RFI is identified it must be sent and tracked until the information is received.

Section II – Conduct of the Health Services Estimate

Estimate Format

0314. Annex A provides a format to guide the HS estimate.

Step 1 - Mission Analysis

0315. The mission analysis ensures that the HS staff has a clear understanding of the mission to be accomplished. It includes a review of the current or potential situation and a background overview of the circumstances that have led to that situation. Information is drawn from the Strategic Initiating Directive, Commander's guidance and directives, direction given by Surgeon General/DHSO/SMA, general and medical intelligence products, DFHP Recommendations for particular regions or operations, and open source information (e.g., World Health Organization, CIA Fact Book).

0316. The mission analysis establishes the results to be achieved and identifies critical operational requirements, limitations on freedom of action and inherent risks. It must consider the intentions of the higher commander, the end state, assigned and implied tasks, and limitations.

0317. **Assigned tasks** are those specified by the Commander. **Implied tasks** are those that must be performed to accomplish an assigned task or the mission, but are not stated in the higher headquarters' order.

0318. **Planning limitations** exist as restraints and constraints**. Restraints** are prohibitive in terms of defining what must not be included in the HS plan. **Constraints** impose specific obligations that must be met. Limitations are generally related to time, space, or resources. See figure 3.2 for examples.

	Time	Space	Resources
Constraints	• Role 2B must be operational no later than *** date	• Must be located at location X	• Must hold XX days of supply
Restraints	• Must not deploy before ***date	• Boundaries not to be crossed • Route not to be used for ground evacuation	• HS Unit may not exceed XXX personnel

Figure 3.2 – Sample Constraints and Restraints

0319. **Determine Assumptions.** Throughout the conduct of the estimate, gaps may be revealed in knowledge and information. It may be necessary to make certain assumptions in order to continue planning. Assumptions must be realistic and their validity confirmed by higher authority, either medical or operational. These assumptions are modified when specific planning guidance and factual data become available. Wherever possible, RFIs should be initiated to turn each assumption into a fact. Assumptions made by your commander are treated as facts.

0320. **HS Mission Statement**. The mission analysis will lead to a HS mission statement that identifies the essential tasks to be accomplished. The HS mission statement concisely defines:

a. Who will conduct HS support;

b. What is to be done;

c. When it will take place;

d. Where it will occur; and

e. Why it will be conducted (effect).

0321. The HS mission statement should not state **how** HS support will be conducted, these details will follow later.

0322. The HS mission analysis must be revisited whenever the situation changes.

0323. **Mission Analysis Briefing**. HS staff may participate in two mission analysis briefings. The first is to the Commander. Only major HS points impacting the Commander's mission analysis will be briefed. These may include critical resource and force health protection issues requiring the Commander's attention. If not directly briefing the Commander, the HS planner must ensure the person (COS Support or J4) briefing the support portion is fully aware of any HS implications.

0324. The second will be a comprehensive mission analysis briefing to DHSO. DHSO will provide further guidance regarding HS planning.

Step 2 - Evaluation of Factors

0325. The HS staff produces a list of relevant factors to be considered. The evaluation of factors must be comprehensive and each must be thoroughly analyzed to come to a deduction resulting in either a:

a. task;

b. grouping;

c. resource requirement;

d. coordinating instruction, such as phasing or sequencing;

e. request for information; or

f. planning guidance to subordinate commands. This may include constraints or restraints.

0326. Factors are interrelated. Deductions from one factor may impact several other factors.

0327. The evaluation of factors should be conducted in the three column format:

FACTOR	CONSIDERATION (what is the significance of the factor?)	DEDUCTION (what can or should be done?) (So what? So what? So what)
Example • Periods of severe weather	• Restriction on helicopter operations will impact forward AE • Increased dependence on ground evacuation assets	• Request additional ground assets • Increase number of MTF in order to meet optimal clinical timelines • Require additional holding capacity

0328. Deduction drawn from the evaluation of factors will enable the HS staff to contribute to the development, analysis and comparison of viable COAs, develop the HS CONOPS and the HS plan. Annex A provides a sample non-exhaustive list of factors to be considered. The following paragraphs provide elaboration on a few key factors.

0329. **Environment**. The assessment of the environment should be conducted in collaboration with intelligence, Med Int, and FHP staffs. It comprises the following categories:

a. **Terrain analysis**. The analysis of the type of terrain (both natural and man-made) upon which an operation is to be conducted is an essential step in planning for the operation. Terrain which is difficult to traverse, has natural barriers and impediments, and which changes with weather conditions, can affect how a force is employed and the types of manoeuver that can be conducted. Different terrain features will influence the types and severity of wounds incurred; the medical equipment and supplies required to treat casualties; the manner in which MEDEVAC operations can be conducted; and the length of time required to evacuate the wounded or injured;

b. The analysis includes the impact of topography, urbanization, infrastructure, roads, airports, and seaports on siting of MTFs and evacuation assets. Distances between locations should be converted into time (based on mode of transport) to facilitate the link between the clinical timelines and potential locations of units. Difficult evacuation routes may necessitate the forward placement of surgical capabilities or more hospital beds. A contiguous or non-contiguous battlespace impacts the siting, capacity and capability of

MTFs and MEDEVAC assets, and force protection requirements. Operations conducted in mountainous terrain may result in more crush injuries, while operations conducted in jungles may result in significantly higher rates of infection;

c. **Meteorological**. This includes weather patterns and their likely or possible health effects on the population at risk (PAR). Hot, cold, wet, dry, dust, and wind conditions are considered for their impact on the types and quantities of medical supplies and equipment, the ability to warm or cool patients, and the capability to maintain the temperature and cleanliness of sensitive medical supplies and equipment. Weather can complicate the treatment of disease and injuries by providing conditions which foster the spread of diseases and infections and providing breeding grounds for disease carrying vectors. It may also impact clinical specialties required to support the force, e.g., tropical medicine. FHP considerations include clothing, equipment, and acclimatization. The weather is also considered for its potential impact on MEDEVAC, particularly AE. This in turn may impact the requirement for more clinically capable facilities and greater holding capacities. Light conditions may impact MEDEVAC timelines;

d. HS planners must continuously plan for changes in weather and their impact on operations. The disruption or cessation of MEDEVAC operations could result in a requirement for holding the injured or ill in place until MEDEVAC operations could be resumed. Contingency plans must be developed for all types of weather scenarios, changes in topography due to weather (flooding, thawing, or freezing), disruption of evacuation routes, availability of resources (rotary-wing aircraft may be grounded due to visibility issues, sandstorms, or other weather phenomena);

e. **Health risks**. On operations, a range of potential hazards may affect the health of the force or the PAR. Emphasizing the importance of diseases and non-battle injuries (DNBI) as the primary cause of health-related restrictions to human performance on operations, **CBRNE3T** is an acronym used to assess health risks that comprises the following threats:

   i. **Chemical** threats, such as conventional chemical agent threats plus toxic industrial chemicals, riot control agents and chemical hazards derived from pharmaceuticals;

   ii. **Biological** threats, such as live organisms, toxins and biological hazards deliberately employed to harm the PAR;

   iii. **Radiological** threats, such as material or events that release ionizing (alpha, beta, gamma radiation and neutrons) and non-ionizing radiation (including directed energy);

   iv. **Nuclear** threats, such as weapons or events that result in nuclear fission/fusion reactions;

   v. **Explosive** (and ballistic) threats cover all consequences of explosive activity on human bodies including gunshot wounds, indirect fire, improvised explosive devices, shells and bombs;

   vi. **Environmental** threats, such as environmental conditions likely to cause harm such as heat, cold, and altitude;

   vii. **Endemic** threats, such as infectious diseases (Biological Agents of Operational Significance) that are not deliberately released that pose a hazard to the health of the PAR; and

viii. **Traumatic** threats cover the trauma element of non-battle injuries to complement the explosive (and ballistic) threats causing battle injuries.

f. **Civilian population**. A good understanding of the cultures, political, economic, religious, criminal activities, and social situation in the JOA is an important precondition for comprehensive operational planning. Conventional military operations' impact on the living conditions of the civilian population must be considered. This could include public health issues, damage of vital infrastructure, civilian casualties as well as refugees and displaced people requiring health care and humanitarian aid. In HODR operations the PAR to be treated will include women, children, and the aged. All these factors impact the selection of medical capabilities, clinical skill sets, and supplies required;

g. **GBA+** considerations must be a part of every operations planning cycle. HS planners must work closely with the formation Gender Advisor and Legal Advisor regarding the medical response obligations to conflict related sexual and gender-based violence and sexual exploitation and abuse by coalition forces;

h. **Local resources**. What can be provided by the host nation or adjacent nations without a negative impact on the local health care system or infrastructure? This includes real estate, labour, materiel, civilian and military MTFs; and

i. **Other stakeholders**. Which IOs or NGOs are working in the area? What are their attitudes toward the military?

0330. **Opposing Forces**. Threat evaluation links the adversary's military capability to an assessment of the types of casualties that might be expected. Enemy probable COAs are provided by the J2.

a. **Strength, disposition and tactics**: The numbers and types of opposing forces and their locations impact the casualty rates and likely locations of casualties. Continuous operations increase combat casualties and operational stress injuries;

b. **Capability and intentions**: The type of enemy weapons employed and tactics will influence the number and type of combat casualties, e.g., peer-on-peer forces or irregular forces; conventional, hybrid, or irregular warfare; or CBRN weapons. The use of improvised explosive devices may delay ground evacuation operations and limit freedom of movement for medical platforms, as ground ambulances may require up armoring and armed escorts to accompany movement. An anti-aircraft capability will impact the use of AE assets. If enemy forces have been issued any chemoprophylaxis, barrier creams, or pre-treatments, it may indicate the types of CBRN weaponry available to them and their likelihood of using those types of weapons;

c. **Adversary compliance with the Law of Armed Conflict** (LOAC) is considered to determine force protection measures to include what should be the posture regarding camouflage or displaying the distinctive emblem (Red Cross) on MTFs and MEDEVAC resources;

d. **Use of child soldiers** is considered to determine potential resource requirements, 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; and

e. **Cyber threat**. This may impact the ability to communicate with MTFs and MEDEVAC assets, and the use of electronic health records and telemedicine.

0331. **Friendly Forces**. The assessment of friendly forces determines the PAR (see paragraph 0344 below). Deductions will inform the development of the Medical Rules of Eligibility (MRoE) (see paragraph 03139).

0332. The type of operation (warfighting, peace support, stability, disaster relief, etc) and the friendly forces' concept of operations will impact the HS capabilities and capacities required to support the force. Different phases of the operation may require different HS support elements. The build-up of HS assets, including HS C2, must be commensurate with the build-up of forces. Robust and comprehensive capability must be available at the initiation of operations, expand progressively as force strength expands and risks increase, decrease progressively as the force strength and risks decrease, and must include a surgical capability to meet peak casualty rates in excess of expected daily rates. The type and duration of a mission may influence the reintegration process for redeploying personnel.

0333. The type of units to be supported (airborne, armour, tactical aviation, ship, etc) and their roles, capabilities, size and mobility will impact the size and type of HS support required. The analysis of these factors determine the clinical and non-clinical qualifications and training, as well as the equipment, vehicle, communications, and shelter requirements for the supporting HS elements.

0334. The Force command structure must be assessed to ensure the HS C2 aligns with the overall C2. Depending on the size of the mission, HS staff should be included at theatre, regional, and component headquarters. CAF HS personnel may be required in national and coalition headquarters.

0335. A subset of friendly forces is the HS capabilities committed by other troop contributing nations. Deductions will identify potential multinational medical solutions.

0336. On many operations the CAF may be working with IOs such as NATO, United Nations, European Union, African Union, etc. The coordination of HS efforts may be required.

0337. **Time and Space**. One of the most critical factors for HS planning is time. The location of, and distances between, friendly elements is a key determinant in locating MTFs and the type and quantity of MEDEVAC assets required. The geographic disposition of the friendly forces must be assessed for time and space in order to try and meet the optimal clinical timelines (see paragraph 0379).

0338. Knowing the types of MEDEVAC capabilities (rotary wing and/or ground ambulance) is critical in determining this key time and space problem. In principal, the following planning timelines should be applied for the time necessary for a casualty to reach a MTF[16].

a. **Role 1 MTF** (with damage control resuscitation team capability) within **one hour** from the point of wounding;

b. **Role 2 Basic MTF** optimally within **one hour**, but not later than **two hours**, from the point of wounding; and

c. **Role 2 Enhanced or Role 3 MTF** within **two hours** of a Role 2 Basic MTF or Forward Surgical Team.

[16] See CFJP 4.10 *Health Services* for a definition of Roles of medical support.

0339. An Aeromedical Staging Facility (ASF) is optimally located within **five minutes** of the Airport of Embarkation or another active airport or aerodrome.

0340. Long evacuation timelines may require additional holding capacity at MTFs and staging facilities along the lines of communication.

0341. The time to tear-down, move, and set up MTFs is considered to ensure continuous medical coverage during mobile operations.

0342. The initial deployment timelines for the advance party and main body must be assessed to determine the medical requirements to support RSOM.

0343. Lengthy or difficult lines of communications are assessed to determine requirements for greater than normal medical logistics capacity and stock levels.

0344. **Population at Risk (PAR)**. The PAR is one of the key determinants of the quantity of HS support required. All entitled personnel within the JOA should be included. Depending on the mission the PAR may include CAF, Department of National Defence (DND) civilians, members of other government departments and agencies, contractors, allied forces, local population (military and civilian), refugees, displaced persons, detainees and prisoners of war.

0345. As the operational plan matures, substantial changes to the PAR may be made. The HS resource requirement will change in step with these developments.

0346. It is important to note that not all personnel in the PAR are necessarily at the same level of risk, nor will all personnel be entitled to the same level of care (see paragraph 03139 regarding MRoE).

0347. The PAR is vital for epidemiological and disease surveillance purposes as it provides the denominator to allow comparison of ill health rates.

0348. In addition to the number of personnel, the PAR should be considered along with the following factors:

a. locations:

   i. dispersion of forces may require more HS resources than the PAR would normally warrant, e.g., an infantry company at a remote forward operating base may require additional Medical Technicians and a Physician Assistant;

   ii. arrangements may be possible with other nations or host nation for the provision of HS support;

b. special requirements, e.g., dive medicine, flight medicine, tropical medicine;

c. experience level of the supported elements, e.g., new to theatre or battle hardened;

d. security and interpreter requirements for prisoners of war/detainees, and local nationals;

e. different types of units have different HS support requirements, e.g., a 500 person Air Force unit at a secure air base has different requirements than a 500 person infantry unit in high intensity operations; and

f. MRoE.

0349. GBA+ may identify a potential PAR that will require health care. There may be legal and force protection considerations to be addressed.

0350. **PAR/Dependency Matrix.** A PAR/Dependency Matrix is a tool to assist HS planners in ensuring that all entitled personnel are accounted for and to identify who (CAF, ally, host nation, contractor) will provide their health care. It will identify gaps in coverage. The matrix may include when CAF HS elements are supporting other nations. The amount of information will increase as planning progresses. Also, details increase at each successive lower level of command. Annex D provides a sample matrix.

0351. **Casualty Estimate**. The casualty estimate is a key determinant of the HS resources that are required for an operation. It predicts where, when, what numbers and what type of casualties will occur. It may have great political and operational significance impacting the Commander's planning. The estimate of battle casualties is led by the J5 with input from J2 and medical. The estimate of DNBI is led by medical with input from the J2. See Section IV of this chapter for details on the casualty estimation process.

0352. **Assessment of Tasks.** The evaluation of the preceding factors will produce a list of tasks and the HS capabilities required to meet the HS support requirements. Most will be grouped into the following:

a. Command and Control, Communications and Information Management;

b. Force Health Protection;

c. Treatment (medical, dental, mental health);

d. Medical Evacuation; and

e. Medical Logistics.

Step 3 - Course of Action Development

0353. Generally HS does not create its own COAs. Rather, like other support functions, it determines options for how each of the Commander's COAs would be supportable from a HS perspective. The HS staff provides advice on HS requirements and develops the HS concept in support of each COA. It analyzes the likely workload of HS elements to identify any resource shortfalls that may impact the COA's feasibility based on the casualty estimate and the interdependent relationship between casualties and evacuation policies; the type of operation and environment; and health risk. The options for the delivery of healthcare are analyzed. This could include a combination of CAF, civilian, allies, multinational, interagency, contract, and host nation resources.

0354. At the end of the COA development, a brief is provided to the Commander. The Commander needs to know if the COA is supportable from a HS perspective, and if so, the options available for providing HS support, the health implications of any COA, the associated risks and possible mitigation strategies, and the HS resource requirements. The HS staff must be prepared to explain the HS concept of support, the employment of assets, rationale for selected medical objectives and tasks, casualty estimates, and limitations that may be deciding factors in COA development. HS planners must be ready to explain why a COA is not supportable and what changes would be required to allow HS to fully support this COA, should it be selected.

Step 4 – Commander's Decision

0355. The operational Commander will decide which COA will be developed into a CONOPS. If more than one option for HS support was developed for the COA, the Commander, based on advice from DHSO, will determine which option is to be developed.

Step 5 – Health Services Concept of Support and Health Services Support Plan

0356. As the selected COA is developed into a CONOPS the HS planners will develop the HS concept of support. It provides the general outline of the proposed HS support and identifies the means necessary to accomplish the mission. The HS support is tailored according to the timeframe and phases of the operation. It identifies and adjusts for shortfalls and assesses risks, based on the difference between desired and attainable support.

0357. Once approved, the CONOPS HS concept of support is further developed into the HS Support Plan. The HS plan should comprise all relevant information about how HS will be conducted on the operation. The plan must account for all entitled personnel in each location during all phases of the operation. It contains the logical sequence of HS tasks. Annex B provides a comprehensive list of items that may be included in an HS plan.

0358. Planning may require coordination with troop contributing nations, host nation(s) and subordinate/supporting commands.

0359. **Conformity**. Health plans must conform to the highest practical level of professional practice, standards and ethics, agreements, and relevant conventions of humanitarian law. They must also be integrated with operational and logistic plans. Only by participating in the development of the operational plan can HS planners ensure adequate support at the right time and the right place.

0360. **Flexibility**. HS orders and plans must have inherent flexibility to enable immediate response to changing tactical situations. HS elements must be capable of rapid re-grouping or restructuring to meet the requirements of specific operations. Plans and orders must factor in redundancy where possible. HS must be flexible enough to expand as the force strength expands and risks increase. This support must have a surge capacity to support peak casualty periods.

Products

0361. **HS Annex**. The HS plan will usually form an annex (normally the Annex K) within the Commander's overall plan and can be updated or replaced as the operation proceeds to ensure it adapts to changing circumstances and requirements. An Annex K is the formation Commander's HS plan. The annex:

a. must be synchronized with and read in conjunction with the main order and other annexes;

b. must provide enough info for the HS element to conduct its own planning and create its own OP O;

c. is linked to the personnel annex, e.g., FHP standards, medical and dental readiness; and

d. at the operational level the Annex K might <u>not</u> include any tasks to HS. These may be in a grouping and task annex (this is decided by the J5).

0362. **HS paragraph to OP O**. In addition to the annex K, there is a requirement to have a HS paragraph in the main section of the OP O. This paragraph outlines the HS concept of support with enough information to understand the big picture. It will then refer to Annex K for more details. It is never acceptable to simply write "see Annex K."

0363. **The HS Information Handbook.** At the tactical level an HS Information Handbook should be produced as soon as possible after entering the theatre. It should provide the location of all relevant MTFs (CAF, Allied, host nation) to include grid references for static MTFs, telephone

numbers, personalities, capabilities, etc. A truncated version should be given to all convoy commanders.

0364. **HS Input to Other Functional Areas**. HS planners will provide input to other functional areas' plans, e.g., engineers, CIS, logistics, force protection, etc.

Resource Planning for Operations

0365. The HS estimate determines the resources (facilities, assets, capabilities, supplies, services, specialties, etc.) required to support the operation. These requirements are listed in the JSOR. Early in the planning process, HS planners must consult with the requite SMEs (Command Surgeons, 1 Cdn Fd Hosp, J4, senior practice leaders, etc) to determine the requirements and the ability to force generate.

0366. **Personnel**. When developing the Table of Organization and Equipment (TO&E), the number of personnel must reflect the actual requirement. Positions that cannot be left empty at any time must be identified as requiring a backfill when the incumbent is on leave. The TO&E may identify when positions can be filled by a civilian contractor. Personnel requirements must be provided to the force generators as early as possible.

0367. **Equipment**. Equipment must include clinical and non-clinical, general support, power generation, vehicles, shelters, weapons, and communications. On warfighting missions HS elements must be self-sufficient. On operations other than war, some resources may be shared or sourced from other elements of the JTF, e.g., the logistic elements will move the HS assets into place.

0368. **Vehicles.** Ambulances must have the commensurate mobility, protection, and communications as the force they support.

0369. **Infrastructure**. When MTFs operate from a fixed base, they may be in fixed infrastructure supported by the base. HS planners must identify to the design and supporting engineers the MTF requirements to include the physical design aspects and the location to be near evacuation routes and helicopter landing sites.

0370. **Supplies**. Closely tied to the TO&E is the quantity of clinical (e.g., biomedical equipment, medical gases, consumable products and pharmaceuticals) and non-clinical supplies required to support the HS element. This may be expressed in days of supply and may be given as a constraint by the operational planners.

Training Requirements

0371. Throughout the planning process, the HS planner will identify clinical and non-clinical training requirements that are required to prepare the force to deploy. Some training is time intensive and/or time sensitive and may have to be initiated early during the pre-deployment period, and may have to start before the full plan is finished. Some training may require coordination with other nations, e.g., TRAC2ES[17]. Requirements must be identified to the force generators as early as possible.

0372. CF H Svcs Gp J7 must coordinate with CJOC and Environmental commands in order to determine their training requirements that impact HS. These could include courses, qualifications, and collective training in which HS personnel must participate. It may also

[17] TRANSCOM Regulating and Command & Control Evacuation System (US Transportation Command)

include training that HS must provide to the JTF, e.g., the Tactical Combat Casualty Care course.

Section III – Generic Planning Considerations

General

0373. When evaluating factors the following planning considerations should be addressed. Some of these considerations may impact several factors.

National Responsibility

0374. HS is a national responsibility. The HS plan must account for every CAF person in every location within the JOA.

0375. Arrangements may be made with allied forces, host nation, or third-party contractors. All external arrangements with other nations, host nation, or contractor must be identified in the plan. Such arrangements must be approved by DHSO.

Medical Lines of Operation

0376. On some missions there may be multiple medical lines of operation, including support to CAF personnel, mentoring or training of host nation personnel, and humanitarian assistance. Whenever possible different personnel should be used for each line of operation. In all circumstances support to CAF personnel is the priority of effort.

Law of Armed Conflict (LOAC)

0377. Commanders may not be cognizant of the obligations and restrictions the LOAC places on HS. The HS planner must make the Commander and staff aware of these as it may impact their planning. The Commander's Legal Advisor should be consulted regarding any interpretation of the impact of LOAC on HS. Annex E provides guidance on the HS aspects of the LOAC.

0378. **Safe Schools Declaration.** The use of schools and universities for military purposes during armed conflict is governed by the provisions of the *Safe Schools Declaration* and the *Guidelines for Protecting Schools and Universities from Military Use during Armed Conflicts*.[18] While the Declaration does not prohibit the use of schools under some circumstances, the temporary use of a school or university as a MTF should be addressed through the Legal Advisor and J9.

Clinical Timelines

0379. Clinical timelines are the primary driver of HS planning. Evidence based planning timelines known as the **10-1-2 (+2) Timeline** provide guidance regarding the siting of MEDEVAC assets and MTFs. It encompasses:

a. **Advanced first aid** adapted to the tactical situation within **10 minutes** after injury, wounding or onset of acute symptoms;

b. **Progressive and Damage Control Resuscitation (DCR)** within **one hour** after injury, wounding or onset of acute symptoms;

c. **Damage control surgery (DCS)** optimally within **one hour, but not later than two hours** after injury or wounding. DCS is life, limb, and function saving surgery; and

[18] For more information see the CDS Directive for the *Implementation of the Safe Schools Declaration*

d. **Intra theatre surgery** (including specialized surgery) should follow DCS as soon as possible. Intra theatre surgery may be conducted at a Role 2 Enhanced or a Role 3 MTF[19], and should be within **two hours** of the completion of DCS procedures.

0380. The 10-1-2 (+2) timeline notes that while it remains desirable for a patient to receive DCS within one 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.

0381. The 10-1-2 (+2) timelines will form part of the risk assessment that is integral to the Estimate process. A key requirement will be to identify the capabilities and capacity needed to meet these timelines in the context of the environment and the predicted casualty load and mix, and to identify the people needed to undertake the medical support roles identified, in terms of both their professional skills and level of military proficiency needed.

0382. Meeting the clinical timelines requires a robust MEDEVAC system with enroute critical care capability whenever DCR Teams, forward surgical teams, or Role 2 Basic MTFs are deployed.

0383. Due to the nature of maritime operations, the 10-1-2 (+2) timeline often cannot be achieved. See AJMedP-1 *Allied Joint Medical Planning Doctrine* for maritime planning parameters.

Task Tailoring

0384. For international missions the CAF generally deploys task tailored JTFs ranging from sub-unit to formation size. The supporting HS element will be task tailored to support the JTF. This may result in a HSU with a mix of Role 1, Role 2, Role 3, and MEDEVAC elements. Due to differences in mobility, equipment, communications, tactics, techniques, and procedures of the various elements, regrouping of the elements must be planned and practised.

0385. **Medical Treatment Facilities (MTF).** MTFs are normally described as Role 1 to 4. Generally the minimum capabilities of each MTF are intrinsic to each higher MTF, e.g., a Role 3 facility should have the ability to carry out Role 1 and Role 2 functions. Enhancing and upgrading the clinical capabilities of MTFs requires additional complex equipment, personnel and supplies, which in turn increases movement, transport and other support requirements, ie, higher Roles are less mobile.

0386. **Capability and Capacity.** Planners determine the capability and capacity of each MTF. MTFs are task-tailored based on the expected numbers and types of patients to be seen in a day taken from the casualty estimate. No two MTFs may be the same in a theatre. The capability and capacity of an MTF may change as the mission matures.

0387. **Joint Task Force Health Services Units (HSU).** In most operations, whether joint or single service, the HS element is task-tailored based on the HS estimate. It is not a pre-existing structure. Depending on the mission the HS element may be any size from a single person to a task-tailored unit. If large enough, the HS element forms an HSU with a CO. If more than one HSU is formed then a Joint HS Group command element is required. If the HS element is smaller than unit size (ie, no CO) it will be called a medical detachment, section, platoon, or company. A sample generic HSU design is found at figure 3.1.

[19] See CFJP 4-10 *Health Services* for the definitions of Roles of medical care.

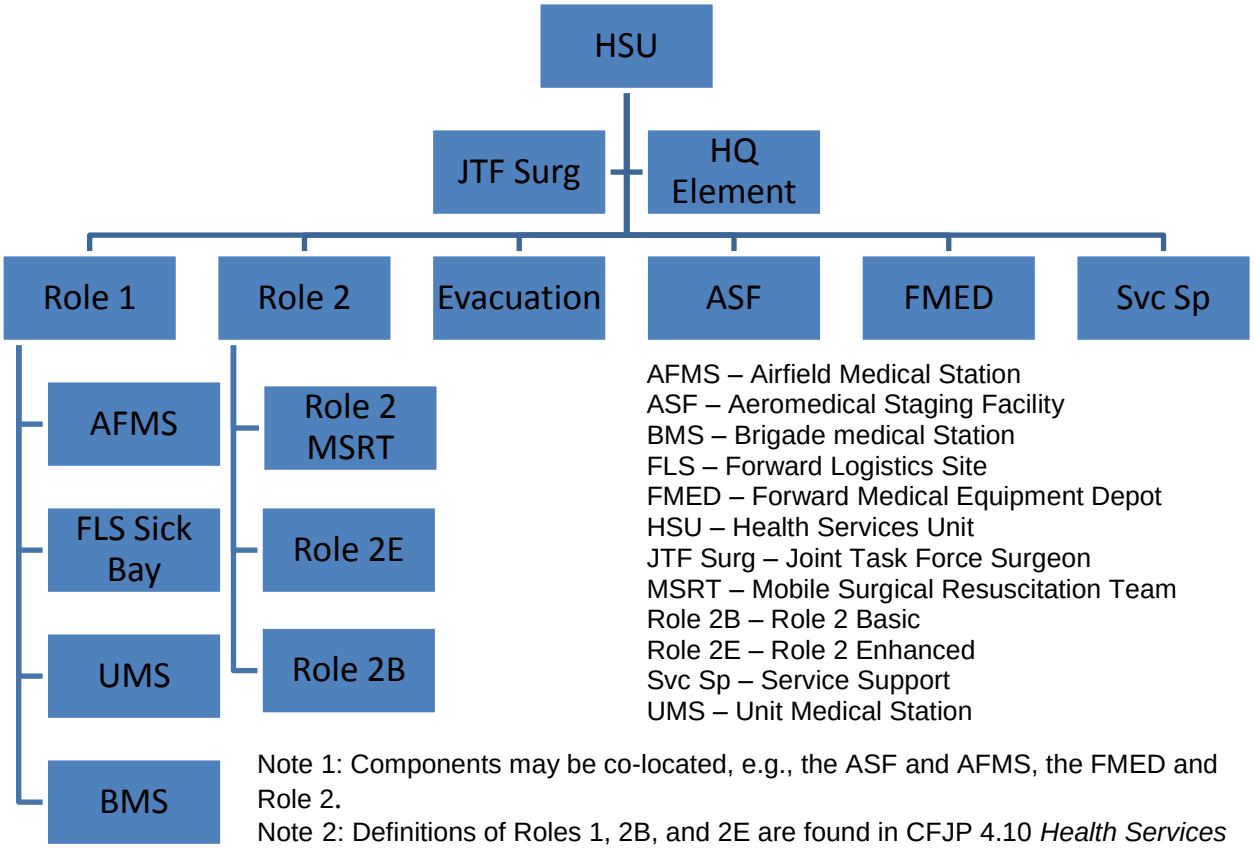


Figure 3.1 - Generic Organization of a Health Services Unit

0388. The HSU, consisting of a number of mission-specific HS capability packages will provide HS to the operation. Generally, all CAF HS elements (except SOF, onboard ships, and HQ staff) are grouped in a HSU. Sub-elements of the HSU may be detached under Operational Control to support the tactical components of the JTF.

0389. Depending on the requirements of the mission, the HSU should be capable of:

a. providing or coordinating Role 1, Role 2 and Role 3 HS to all JTF personnel to include advance parties and main bodies during the deployment phase. This may include coordinating HS from external sources such as host nation, allies, or IOs, consistent with the MRoE;

b. providing HS advice;

c. providing and/or coordinating HS logistics support. This includes medical and dental re-supply for all tactical components and JTF personnel, including reception, trans-shipment of blood and blood products, holding of medical and dental maintenance stocks for HS elements without first line support as well as JTF operational medical and dental stocks, and medical and dental equipment repair and disposal;

d. coordinating force health protection activities;

e. conducting MEDEVAC with HSU resources, and coordinating with higher HQ 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 services;

i. providing medical intelligence;

j. conducting medical regulating and patient tracking;

k. providing National Medical Liaison Officer(s);

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

m. providing HS to JTF personnel during the redeployment phase; and

n. if required, providing training and capacity building within the host nation.

0390. **HS personnel in a multinational HQ.** CAF HS personnel in formation level or multinational HQs will not normally be part of the HSU.

0391. **Coordination of support to the HSU**. 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 Joint Task Force Support Component (JTFSC), Battle Group Support Company, or Air Expeditionary Wing/Air Task Force Mission Support Element. The support arrangements may evolve as a mission matures.

0392. When support is to be provided by elements outside the HSU, HS planners must ensure that the unique support requirements are clearly articulated to the engineer, maintenance, logistics, and CIS planners. For example, Role 2 and Role 3 MTFs have unique power and water requirements for which 1 Cdn Fd Hosp technicians are the SME.

0393. Elements of the HSU deploy in territory that is controlled by others, such as host nation, allied forces, Battle Group, or JTFSC. During the planning process and during operations co-ordination of support will be required from/through the JTFSC or tactical-level support elements. This may include:

a. site selection and preparation for MTFs;

b. utilities such as water supply, sewage disposal, power, and communications hook-up;

c. disposal of biomedical waste and other environmental contaminants;

d. refuse collection;

e. mortuary affairs;

f. legal services;

g. personnel, vehicle, and materiel decontamination;

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

i. vehicle and equipment maintenance beyond first line support;

j. local labour;

k. force protection/security;

l. financial services; and

m. public affairs services.

Command, Control, Communications and Information Management

0394. To assist planning and to be able to provide HS advice to the Commander, the JTF Surgeon and HS staff, and CO HSU require situational awareness. HS decision-making is dependent on accurate processing and timely distribution of environmental, tactical, patient and casualty data to all authorized personnel.

0395. Efficient communications and information management is essential to effectively provide HS support and enable HS planning, deployment health surveillance and force health protection, patient tracking, medical regulation and medical incident response.

0396. Normal command relationships for domestic and contingency operations are detailed in CFJP 4.10 Chapter 3.

0397. HS planners must design a dedicated HS C2 architecture capable of planning, executing, controlling, supporting and auditing the full spectrum of medical support functions. The HS command system should provide all resources required to support treatment, evacuation and flow of information from initial point of injury/illness through evacuation to definitive treatment and final disposition.

0398. In multinational operations the lines of medical accountability and the medical C2 architecture must be clearly established in relevant OPLANs. A CAF led multinational medical unit (MMU) may have both national and coalition responsibilities. Close liaison with J6 during the planning process as well as early consultation with contributing nations will be the key to an interoperable network in a multinational environment.

0399. The treatment and movement of a single casualty may involve coordination across a number of headquarters and command boundaries, as well as nations. The plan must consider how CAF HS elements communicate and coordinate with coalition partners. This must account for any legal/policy requirements for sharing of information, e.g., patient confidentiality.

03100. **Communications.** Planners must account for secure and non-secure verbal and electronic systems, both CAF and coalition. This includes CAF, allied, and coalition software such as CFHIS[20], TRAC2ES, and NATO MEDICS[21]. Tactical level HS elements must have the same tactical net communications as the forces they support.

03101. As many clinical resources are online, consideration should be given to non-protected internet connections. Where possible, WIFI should be considered in order to allow access via smartphones or tablets.

03102. **Reports and returns**. Planners must account for medical and non-medical reports and returns required by CAF and the coalition, e.g., Disease and Injury Surveillance System (DISS) and EpiNATO[22].

[20] Canadian Forces Health Information System.

[21] NATO Medical Information and Coordination System (currently in development).

[22] A NATO-sponsored morbidity surveillance system which is a keystone tool to be managed by the medical staffs of deployed forces at all levels, involving the monitoring, collection, and evaluation of illness/injury data on deployed personnel who report for medical treatment support, both on an outpatient and inpatient basis.

03103. **Telemedicine**. The effective use of telemedicine assists the goal of providing quality of care while using a reduced medical footprint in theatre. During the planning phase early liaison with J6 staff is necessary to identify the increased communications bandwidth requirements to support telemedicine.

03104. **Health records.** Health records may be electronic or paper copy. Planners must ensure that a process is in place to ensure that health records are obtained for every CAF patient whenever they are treated in a non-CAF MTF. This is of particular concern on small missions when there is no CAF HS personnel. CFJP 4.10 Chapter 2 Section IV provides direction on health records management.

Force Health Protection (FHP)

03105. FHP forms a part of overall Force Protection. HS planners must harmonize their FHP considerations with the J3, Logistics and Engineers staffs for matters such as food and water safety, and vector and pest control.

03106. CF H Svcs Gp HQ DFHP provides input to HS planning at the operational level and advice to tactical level planners. CFJP 4.10 Chapter 5 includes additional information on FHP and planning considerations.

03107. DFHP provides health protection recommendations for deployments to all parts of the globe. HS planners should check the CF H Svcs Gp Policy and Direction website to determine if there is a current advisory for the location(s) covered by the deployment. If one is not available, HS planners must request one through DFHP.

03108. The HS estimate should identify any mission specific immunization or preventive medicine requirements, and if there is a requirement to send a Deployable Health Hazard Assessment Team.

03109. A fundamental component of FHP is health surveillance which is the continuous, systematic collection, analysis, interpretation, and dissemination of health-related data with respect to deployed forces. It is intrinsic to obtaining a clear picture of the health status of the Force and enables it to adopt appropriate measures. HS planners must ensure the requirement for health surveillance is included in the HS plan. See CFJP 4.10 Chapter 5 for more details.

Medical Evacuation (MEDEVAC)

03110. **MEDEVAC** is the movement of patients under medical supervision to a medical treatment facility.[23] The MEDEVAC system's objective is to get the right patient onto the right platform with the right medical assets to the right medical treatment facility at the right time. To accomplish its mission, a MEDEVAC system should 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 also 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 the necessary clinical care to the patient throughout the 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

[23] *DTB* Record 7873

d. the ability to track patients accurately throughout evacuation.

03111. Patients should never be held in-situ any longer than is clinically or tactically necessary. Since the arrival of casualties can be unpredictable, MTF commanders and medical planners must always be thinking about how to empty-out a MTF.

03112. **General MEDEVAC planning considerations**[24] include:

a. tactical commander's operation plan (OPLAN);

b. enemy activity;

c. anticipated casualty load, type, and expected areas of patient densities;

d. time and space between potential points of injury to MTFs, and between MTFs;

e. the destination MTF is determined by the patient's medical condition and the tactical situation and patients should not normally be evacuated farther back than their conditions warrant;

f. contiguous or non-contiguous battlespace;

g. range, capacity, speed, protection, and notice to move requirements of the MEDEVAC platforms;

h. communications with the MEDEVAC platforms, sending and receiving MTFs, the battlespace controlling headquarters, and the Patient Evacuation Coordination Cell;

i. launch authority;

j. enroute care capability;

k. force protection;

l. route selection (controlled routes, barriers);

m. airspace control;

n. weather;

o. evacuation of infectious casualties;

p. evacuation of prisoners of war/detainees;

q. control during communications blackout situation (radio silence);

r. Commander's policy regarding the display of the Red Cross;

s. property exchange; and

t. medical supplies replenishment.

03113. When initiating a MEDEVAC it may not be possible to gather every piece of information in perfect fidelity, ie, all details of a MEDEVAC Request (9-Liner) and the Mechanism Injury Symptoms Treatment report. With a goal of meeting clinical timelines decisions may have to be made with limited information. Losing time is losing lives.

[24] See CFJP 4-10 *Health Services* Chapter 6 and AJMedP-2 *Allied Joint Doctrine for Medical Evacuation* for more information.

03114. See Chapter 4 for additional MEDEVAC planning considerations for specific operations and environments.

03115. **Aeromedical Evacuation (AE).** AE is the movement of patients under medical supervision by air transport to and between MTFs as an integral part of the treatment continuum.[25] There are three types of AE:

a. **Forward AE** provides airlift for patients between point of injury or illness and the initial point of treatment within the area of operations. The JTF Surgeon will plan AE with the air component staff on behalf of the JTF Commander. The HSU will implement the AE plan with supporting air component elements and treatment facilities. 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. The provision of Forward AE trained medical personnel is the responsibility of the deployed force. When RCAF aircraft are employed, AE teams will come from the HSU;

b. **Tactical AE** is the phase of MEDEVAC that provides air transport for patients between MTFs within the JOA. Transfers from one MTF to another will normally occur when the patient requires specialist care that is only available at another facility within the theatre of operations or when there is a need to clear beds due to impending or existing tactical operations. This responsibility is carried out by the air component, with the Air Component Surgeon providing clinical supervision. While fixed-wing aircraft are normally used for tactical AE, rotary wing aircraft may also be used. When RCAF aircraft are employed, AE teams will come from the HSU; and

c. **Strategic AE** is the phase of MEDEVAC that provides air transport for patients from MTFs within the JOA to MTFs outside the JOA or additional AE between MTFs outside the JOA. Such movement normally occurs when patients require further treatment and must be moved to a definitive care facility. Strategic AE can be done from overseas areas or from a theatre of operations, to the home nation, to other allied countries, or to a temporary out of theatre safe area. It is a national responsibility. It is implemented through the 1 Canadian Air Division AECO in conjunction with the CJOC Movements Control Centre and the CF H Svcs Gp. Long-range fixed-wing aircraft, provided by the RCAF, allies, or contractors are normally used for strategic AE flights. When RCAF aircraft are employed, the CF H Svcs Gp will provide AE teams and in-flight medical attendants, if required.

03116. **Evacuation of Patients with Highly Communicable Infectious Diseases.** Evacuation of patients with highly communicable infectious diseases poses considerable challenges, particularly when using aircraft. Extraordinary measures may be required to ensure patient, aircrew, and medical crew welfare and protection, and to ensure force protection and population health. B-MD-005-000/FP-001 *Aeromedical Evacuation Manual* provides some planning considerations.

03117. **Theatre Patient Return Policy.**[26] The Theatre Patient Return Policy[27] defines the maximum length of time (in days) that a patient will be allowed to receive treatment in theatre, recover and return to duty. The return policy is mission-dependent and is established by the Chief

[25] See B-MD-005-000/FP-001 *Aeromedical Evacuation Manual* and CFJP 4.10 for further information.
[26] This document uses the new NATO terminology of "Return" rather than "Holding" or "Evacuation" policy.
[27] See CFJP 4.10 for additional information.

of the Defence Staff in consultation with the JTF Commander, Commander CJOC, Commander RCAF, and the Surgeon General.

03118. HS planners consider the availability of medical assets, constraints on movement, particular operational imperatives, distances, weather and topography. Independent from tactical imperatives, it will also be affected by factors such as welfare considerations, public expectations, national policy and the availability of strategic evacuation.

03119. It may evolve as an operation matures. On enduring operations increases in capabilities and capacities of MTFs may allow for longer stays in theatre.

03120. In multinational missions, the coalition-wide theatre patient return policy may differ from the CAF patient return policy. This can have an operational impact if Canada is the lead nation of a MMU.

03121. The Theatre Patient Return Policy does not apply to local nationals. Indigenous patients (military, civilian, detainees) will remain in-theatre. Their length of stay in a hospital bed may be dependent on the local nation's medical system's ability to take over their care.

03122. **Medical Regulating**. Medical regulating is the process of directing, controlling and coordinating the transfer of patients within and outside a JOA from the point of injury/illness through the continuum of care. This is done in order to:

a. facilitate the most effective use of medical treatment and evacuation resources;

b. ensure that the patient receives appropriate care in a timely manner; and

c. ensure adequate beds are available for current and anticipated needs.

03123. In any JOA the regulation 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 rate and theatre patient return policy. It must take into consideration many planning and operational factors, such as:

a. patient's medical condition (stabilized to withstand evacuation) and eligibility for treatment;

b. availability of evacuation assets at the tactical and strategic level;

c. MTF availability, their specialist capabilities, medical equipment status and staffing levels;

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

e. location of airport / seaport of embarkation;

f. location, number and clinical condition of patients;

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

h. communication status in the regulating chain (to include radio silence procedures and cyber threat); and

i. theatre patient return policy.

03124. In multinational operations, CAF MTFs and MEDEVAC assets may form part of an integrated multinational medical plan. The HS planners must ensure proper communication linkages with the Theatre/Sector/Region Medical Coordination Cells to ensure proper passage of

information regarding receiving patients from other nations, and when sending CAF patients to other nations' MTFs.

03125. **Patient Tracking.**[28] The tracking of patients is of particular concern to commanders. Keeping track of all personnel 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. A patient tracking system must be real time, accurate and dynamic, using standardized procedures, enabling exchange and interchange of data and availability to HQ J1 and HS staff

03126. Continuous monitoring and notification of patient location and status is a great challenge and of significant importance in a multinational environment, involving transfer of information between nations. A mitigation strategy may be to locate a CAF National Medical Liaison Officer (ideally a nurse or physician assistant) in key Coalition MTFs.

Health Services Logistics[29]

03127. Every operation has unique requirements based on mission type, casualty estimate/level of HS support, location and lines of communication available in/out of country, duration, etc. The HS logistics system needs to ensure the sustainability of the HS support system under all operational conditions. See CFJP 4.10 Chapter 2 Section IV for more information on HS logistics.

03128. Due to their technical complexity and legal requirements HS logistics factors require full analysis. The initial HS logistic requirements are developed by the HS planner and the SMA and senior dental authority. These initial requirements are further refined by CF H Svcs Gp J4 and Director Dental Services.

03129. Initial supply and resupply for deployed operations is done through Central Medical Equipment Depot and Director Dental Services. Due to the unique supply and equipment requirements of Role 2 and Role 3 MTFs, 1 Cdn Fd Hosp must be involved in the planning for these facilities.

03130. On domestic operations and exercises, the supporting medical or dental clinic provides or arranges the supply, through a contractor or the Central Medical Equipment Depot.

03131. Although HS logistics is a national responsibility, bi-national multinational solutions may offer efficiencies for the HS supply chain, e.g., multinational support arrangements could be established for the provision of blood and blood products, ensuring that national standards are met.

03132. The movement of HS materiel[30] requires collaboration with general logistics. This includes the identification of the special handling requirements (e.g., narcotics, medical gases, cold chain, etc). HS personnel are responsible for the identification of the requirement, the specification and quantity of HS materiel and will advise on prioritisation of delivery.

[28] The precise and continuous monitoring of the location and intended destination of the patient within the continuum of care.
[29] See A-MD-175-003/AG-001 *Medical Materiel Management* for further information.
[30] Medical materiel includes consumables, equipment, blood, pharmaceuticals, etc.

03133. **Blood**. HS planners and the SMA determine the blood requirements and Walking Blood Bank[31] policy for DHSO approval. The CF H Svcs Gp J4 makes the necessary arrangements through Canadian Blood Services or a bi-national agreement with another country.

03134. **Medical Gases**. The transport, production or acquisition, and storage of medical gases are regulated by quality, safety, and dangerous cargo concerns. Also, the differences between Canadian and other nations' sizes and standards for fittings and couplings must be considered when planning missions outside of North America. The CF H Svcs Gp J4 can provide advice on specific medical gases requirements.

03135. **General Logistics and Engineer Support.** General logistics factors include water, feeding, shelter, transport, non-clinical supplies, power, laundry, cleaning, mortuary affairs, and disposal of clinical waste. Evaluation of these factors requires close liaison with the logistics and engineer staffs.

03136. Role 2 and Role 3 MTFs have significant space, lift, water, laundry, power and site preparation requirements. As the size of MTF and expected volume of surgical work is mission dependent, HS planners must consult 1 Cdn Fd Hosp for SME input. This information is then provided to the logistics and engineer planners.

03137. **Medical Waste**. Plans must be developed to address the disposal of medical and radiological waste. The plan must consider pollution prevention, protection of the environment, and compliance with pertinent regulatory guidance/policy, including host nation laws.

03138. **Disposal**. The disposal, by destruction or donation, of medical supplies and pharmaceuticals is governed by strict policies and requires Minister of National Defence (MND) approval. All disposal planning is addressed by CF HS Svcs Gp J4.

Medical Rules of Eligibility (MRoE)

03139. CAF HS elements are generally deployed to provide health care to CAF personnel; however, there are increasing circumstances where CAF HS will be expected to provide care to non-CAF personnel. The MND may authorize the provision of care to civilians and other non-CAF personnel in accordance with Queen's Regulations and Orders (QR&O) 34 (Medical Services) and QR&O 35 (Dental Services). The scope of the care to be provided will be detailed as MRoE. MRoE are not required when health care is only to be provided to CAF personnel, or if covered by a bi-national agreement.

03140. Support to non-CAF/Coalition personnel must not impinge on an MTF's ability to perform its main task. There must be no implied commitment to provide continuous long-term care nor any form of medical treatment beyond the capabilities of existing resources.

03141. MRoE must clearly state the level of eligibility for treatment of the following:

a. DND civilians, other government departments or agencies, and contractors;

b. allied military personnel;

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 under agreements to health care;

[31] Consideration for using the Walking Blood Bank must happen early in the planning process, as it involves training, screening of potential donors, and coordination with Canadian Blood Services and other nations.

d. host nation civilians, with consideration given to host nation treatment standards and the subsequent requirements for follow up or longer term treatment. It may not be appropriate to undertake a course of treatment if the HN clinical infrastructure does not have the capability to successfully complete the treatment after discharge from the military medical system. Host nation civilians injured as a result of the conflict are to be provided with emergency care when this is requested, and thereafter should be transferred to local healthcare facilities as soon as their condition allows;

e. members of the host nation security forces are to be provided with emergency healthcare and then transferred to host nation healthcare facilities as their condition improves to allow transfer;

f. local civilian hires may require occupational health examination as a condition of employment (e.g., food handlers), and emergency healthcare in case of occupational accidents;

g. contractors should have their own healthcare arrangements, but due to limited numbers it may be practical for CAF to provide; and

h. GBA+ identified personnel. Legal advice is required to determine obligations.

03142. MRoE must identify eligibility for tactical and strategic MEDEVAC.

03143. MRoE must identify which services are on a cost recovery basis.

03144. MRoE are mission specific and are compiled during the OPP. MRoE are recommended by the force employer with advice from the Surgeon General and are approved by the MND. HS planners should obtain a legal opinion from the CF H Svcs Gp Legal Advisor whenever considering CAF health care to civilians and non-CAF personnel.

03145. During multinational operations the theatre-wide coalition MRoE may differ from CAF MRoE.

03146. A simplified MRoE flowchart is shown at Annex C.

Administrative Responsibility for Patients

03147. The HS system is responsible for the feeding, clothing, discipline, general welfare, hygiene, liaison with the parent unit, and the disposal of all patients from the time they come under medical care until they are discharged to duty or evacuated from the theatre of operations.

Health Care for Persons Deprived of their Liberty

03148. It can be difficult to calculate the holding capacity required for persons deprived of their liberty (prisoners of war, detainees) because they may not be subject to theatre patient evacuation policies and may not have ready access to definitive Role 4 care capabilities. During the planning process consideration should be given to determine when additional MTF holding capacities may be required. Canada may retain legal responsibility for the treatment of any person transferred to the custody of another nation.

03149. HS staff need to be involved in the planning and operation of detention facilities, particularly when the persons held in them may pose a risk to those guarding them from poor hygiene practices or endemic disease. The plan must:

a. include a preventive medicine strategy;

b. ensure the provision of primary health care services within the facility; and

c. ensure that the guarding force has adequate medical support.

03150. HS planners should refer to CFJP 3-14 *Prisoners of War and Detainees* for planning considerations.

Host Nation Health Care Support

03151. On some missions, it may be possible to use elements of the host nation, or adjacent nation, military or civilian health system. This reduces the requirement to deploy some CAF HS elements. This requires early planning and coordination. The use of host nation HS must take account of the size of the deployed force, the assessed risk and the capabilities and capacity of the host nation.

03152. For political, ethical and legal reasons, the provision/acceptance of host nation HS is subject to technically specialized and highly sensitive considerations. Coordination between HS planners and the host nation is essential in order to ensure an acceptable standard of health care is provided to the mission. Capabilities and acceptability of host nation facilities must be confirmed during the reconnaissance. The J9 (CIMIC) cell provides coordination and liaison that assists in making civil resources available.

03153. **Global Affairs Canada (GAC).** GAC has a presence (embassy, consulate) in many countries where the CAF may be planning to deploy on operations or exercise. They will have an extant healthcare plan for their own personnel. This plan may assist the HS planner in identifying HS resources available in the region. There may also be a Canadian Defence Attaché accredited to the country. CJOC will have a process in place for requesting information from GAC and attachés.

Contracted Health Care Solutions

03154. Early in the planning process shortfalls in HS capabilities or services may be identified. If contracting is identified as a viable solution industry must be engaged as early as possible and consideration be given to establishing framework contracting arrangements. Risk will vary considerably, influenced by the operational environment, mission type, operational readiness requirements and the capability requirements themselves.

03155. For small deployments with few personnel where it is not cost effective to deploy CAF HS assets, contracting is possible with High Risk Medical Insurance companies who will arrange all levels of healthcare in remote locations to include the provision of AE. Legal and HS staff will provide their expertise to J8 when outsourcing is required. J8 is responsible for contracting. DHSO is the approval authority to use contracted HS, less Strategic AE. That authority rests with 1 CAD through the 1 CAD Surgeon and AECO.

Civil-Military Medical Interface

03156. In all operations, but particularly in peace support operations, non-combatant evacuation operations, and HODR operations CAF HS elements may work closely with a variety of civilian actors. This could include host nation, IOs and NGOs. A framework agreement with key partners is required in order to ensure harmonization of efforts and an understanding of each other's motives, objectives, capabilities and limitations. Planning considerations are found in CFJP 9 *Civil-Military Cooperation in Peace, Emergencies, Crisis, and War* and chapter 3 of AJMedP-6 *Allied Joint Civil-Military Medical Interface Doctrine* (STANAG 2563).

Multinational Medical Support

03157. See Chapter 4.

Planning for International Missions without CAF HS

03158. The CAF participates in United Nations and other IO missions. These vary in size and may not include any CAF HS personnel. The in-theatre HS plan is arranged by the IO. CJOC HS staff must be familiar with these plans and advise Commander CJOC if they are acceptable. CJOC HS Staff Inspection Visits should be conducted when a new mission is established, whenever the IO medical plan changes, and periodically to ensure it is at an acceptable standard. Strategic AE out of theatre remains a national responsibility.

03159. On small non-IO missions, the tactical level planning is conducted by the CJOC HS staff. This often involves arranging HS through allies or host nation. The same applies for special operations forces missions, where the planning is conducted by the CANSOFCOM HS team in collaboration with the special operations forces unit SMA.

Planning for Specific Operations or Environments

03160. Different types of operations and different environments may require different HS planning considerations. Chapter 4 provides foundational information in order to address HS issues that may pertain to specific operations or environments.

Theatre Mission Specific Training (TMST)

03161. When a mission is named, TMST will be developed for the specific theatre. TMST may include CJOC, RCAF, Canadian Army, and HS mandated training. HS planners must inform other planners of any HS specific requirements (e.g., preventive medicine briefings).

03162. **Driver Training**. Many overseas missions use rental vehicles with manual transmissions. Drivers must be trained on this type of transmission prior to deployment. Also, road signage and rules of the road differ in many parts of the world. Drivers must be briefed on this prior to deployment.

Planning for Pandemics

03163. Responses to pandemics is usually a whole of government activity. Within Canada the Public Health Agency of Canada is the lead agency for planning the medical element of responses to real or potential pandemics. DFHP, in collaboration with DHSO, will lead the medical component of CAF pandemic response planning. See CF H Svcs Advisory 4400-02 *Certain Public Health Aspects of CF H Svcs Pandemic Influenza Preparation and Response* for further information. CJOC's CONPLANs VIRUS and LASER provide guidance on pandemic influenza response. These are available on the CJOC website.

Movement Planning

03164. The logistics function of Movements plans, co-ordinates and controls the use of all modes of transportation in order to get the right assets moved to the right place, at the right time, in the right condition.[32] The HS planner must coordinate with the J3 staff, who set the priorities, and the J4 Plans and J4 Movements staff, who manage the process. HS planners must communicate any special handling requirements such as time and temperature sensitive items, dangerous goods, as well as Surgeon General controlled items and narcotics.

03165. The HS planner must know the flow into theatre of all JTF elements in order to ensure adequate HS coverage throughout the process. Also, the HS planner must inform other planners

[32] See CFJP 4-1 *Movement Support*.

(Logistics, CIS, and Engineers) of HS requirements that may impact their sequencing, e.g., engineering support to set up a Role 2 Enhanced MTF, or bandwidth for telemedicine.

Joint Task Force Support Component (JTFSC)[33]

03166. During the OPP it will be determined if the deploying HS element will be part of the JTFSC. The decision of whether or not to belong will impact the size of the HS element. Further information on the JTFSC is found in CFJP 4.10 Chapter 3 and CFJP 4.

Mass Casualty (MASCAL) Planning

03167. A MASCAL situation is where the number, type or severity of casualties exceeds the available treatment capacity and capability. MASCAL is not an issue for the medical staff alone, but rather a major incident requiring the attention and resources of large parts of the operational HQ. Command and control of MASCAL situations rests with the battlespace owner, both in planning and execution.

03168. The coordination of medical support must be undertaken in close cooperation with operations and planning staff in the main headquarters of the supported formation. Clearance of explosives, additional force protection, and special equipment for the extraction of wounded personnel or extinguishing fires might have to be initiated and coordinated before medical personnel can treat patients. To ensure effective management of MASCAL situations, the HS planner must work with the J3 staff to develop and rehearse a MASCAL plan for the formation/unit.

03169. The potential impact of MASCAL situations has to be considered and contingency plans to mitigate its impact should be developed, briefed and rehearsed. This is particularly necessary on operations with low rates of expected casualties, where the HS structures in place may not be configured to cope with large numbers of severely injured casualties.

03170. MASCAL planning must be conducted at every level. This includes each MTF, operating base, and from tactical unit to theatre-wide. A series of suitable plans should be developed for each of the scenarios assessed as likely at the tactical level. These should then be integrated into a theatre-wide MASCAL plan. AMedP-1.10 *Medical Aspects in the Management of a Major Incident/Mass Casualty Situation* (STANAG 2879) provides guidance on MASCAL planning.

Section IV – Casualty Rate Estimation

General

03171. Estimation of casualties is an essential but challenging element of HS planning. It is particularly vital for planning of Role 2 and Role 3 MTFs as it will have a significant impact on capability and capacity, equipment, personnel levels, and patient return policy.

03172. As with all estimates, casualty estimates are based upon assumptions and the results they produce need to be treated accordingly. Military medical expertise and sound judgement will be required in interpreting casualty estimation data to determine the HS support plan. Evidence-based models, such as operational analysis, are increasingly available, especially in mature theatres of operation and can be used to augment the casualty estimation process.

03173. Factors affecting casualty estimates include friendly and enemy populations at risk; scheme of manoeuvre and phases of operations; type of operations; combat intensity; terrain; weather;

[33] See CFJP 4-0 *Support*.

enemy capabilities; enemy posture; and relative strength of the opposition, surprise and patterns of operations. In determining and assessing these factors, HS planners must work closely with J2 and J5 staffs. It is the J5 who has the lead for battle casualty estimation.

03174. When an upcoming mission has similar parameters to a recent CAF mission, HS planners should liaise with DFHP who may have some epidemiological data that will assist with casualty estimation.

03175. At the strategic level casualty estimation determines the requirement of medical resources to a specific campaign, confirms the strategic MEDEVAC system capacity requirements, allocates hospitals to locations in theatre, and determines the requirement for specialist medical capabilities in theatre. At the operational level, the casualty estimate determines the requirement for medical capability and capacity over the period of the campaign design. This confirms the location of evacuation and forward hospitals, the capacity of the in-theatre MEDEVAC system and the demand for specific medical logistic commodities such as blood products and medical gases. The tactical casualty estimate predicts the number of casualties for each engagement, determining the disposition of medical elements, and the opening and closing times for MTFs.

03176. Casualty estimates are normally divided into two groups, battle casualties (BCs) and DNBIs. The main steps in estimating are the same for both categories:

a. **Determine the Population at Risk (PAR).** The troops at risk are determined. Different elements of the force face different risks. The PAR may be taken as a whole or broken down by force element;

b. **Estimate the Rate.** The rate at which casualties will occur may be estimated on a proportional basis across the PAR expressed as a rate over time (e.g., number of casualties/100 personnel/day), or as the total numbers of casualties expected for particular engagements. If a proportional rate is used, this is must be applied to the PAR as a whole to give total number of expected casualties;

c. **Estimate the Profile**. The casualty profile details the relative proportions of each of the different:

   i. Casualty types expected – wounded in action, CBRN, operational stress injury, DNBI.

   ii. Clinical severity – Category A, B, C.

   iii. Clinical type – neurology, eyes, burns, general (abdominal or thoracic cavity) surgery, limbs (orthopaedic).

d. **Estimate the Casualty Flow**. Casualty flow analyses the likely location, timing and type of casualties that will be generated. This should result from the wargame conducted with the operational planners, and assists with determining the location and opening period for key MTFs, particularly Role 2 and Role 3 units.

Battle Casualties (BC)

03177. BCs are those that occur as a direct result of combat. BCs comprise four main elements:

a. killed in action;

b. captured and missing in action. This is a J1 and chain of command rather than medical concern;

c. wounded in action; and

d. psychological casualties.

03178. J3/J5 staffs have lead responsibility for BC estimation based on their detailed knowledge of the plan and the information and intelligence upon which it is based. As a result BC rates may be highly classified. Casualty estimates of all types have implications on force structure and should be produced early in the planning process. Detailed BC estimation may not always be possible and in such circumstances it may be appropriate for the HS staff, in concert with the J1 staff, to suggest an initial planning figure or to use generic BC rates to allow planning to begin. Such figures should be agreed with J3/5 staff and may be amended later with rates specific to the operation as planning proceeds.

03179. **BC Rate**. BC rates will be different based on the phase of the operation and by unit. They will also differ between various elements of the force, e.g., elements of sustainment and support troops serving in areas distant from active combat suffer fewer combat-related casualties.

03180. For operations with low casualty estimates like peace support operations, the estimation of casualties that might occur from individual incidents rather than from the campaign as a whole may be more appropriate than a generic rate. As an example of this "event driven" planning, HS planners may construct the medical laydown to be able to cope with particular incidents like mine incidents, road accidents or limited, local attacks, taking into account the probable amount of losses these may cause, instead of relying on statistically low baseline casualty rates.

03181. Additional factors like surprise, terrain, weather and combat ratio provide planners with additional information. Surprise is favourable for the force which owns the initiative. Flat and uncovered terrain as well as dry weather conditions will probably support the attacking force. The more equal the combat ratio of friendly and opposing forces is, the higher the estimated casualty rates will be.

03182. **BC Profile**. Different types of military operations produce different casualty profiles. A thorough threat assessment and a proper analysis of the environment together with a comparison with former campaigns provide the basis for the estimate of severity and patterns of casualties to be expected. Reviewing historical data in trauma registries[34] will assist in determining potential casualty profiles for different types of operations and threats.

03183. **BC Flow**. Estimation of casualty flow requires a detailed appreciation of the disposition of the force, the supporting medical plan and the operational activities being conducted. Planners estimate when and where casualties are likely to occur and where they will be evacuated and treated. Casualty flow estimation can be crucial to the success of the HS plan as it will help manage casualty regulation and potentially prevent individual medical assets being overwhelmed during an engagement.

03184. As the Commander's plan provides the basis for the casualty flow assessment, each of the phases and sub-phases depicted in the plan or at an earlier stage in the concept require an analysis of casualty rates related to the scheme of manoeuvre.

Disease and Non Battle Injury (DNBI)

03185. DNBI is the baseline rate of disease and injury due to accidents. Both the incidence and the impact of DNBI are of significant operational importance due to their potential impact on the

[34] Examples include the Unites States' Department of Defence Trauma Registry and the NATO Trauma Registry.

ability of a force to operate. Expressing DNBI rates in terms of number of working days lost can be a particularly effective means to highlight the effect of disease and illness.

03186. Due to different environments and as a result of selection and preparation of personnel, the estimation of DNBI will produce rates that differ from rates applying for peacetime establishments. DNBI rates are drawn from empirical evidence gathered during different types of operations.

03187. Estimation is the responsibility of the HS staff based on historical evidence, environmental assessment and knowledge of the occupational risks associated with military duties. In order to establish a sound DNBI estimate, the HS planner has to consider factors such as the level and nature of activity, acclimatisation, climate, weather, road infrastructure, training and living conditions of the deployed personnel. Like BC rates these rates vary during the phases of an operation.

03188. Accurate DNBI estimation requires close cooperation with the J2 and J3/5 staffs.

03189. **Deployment health surveillance system.** The Disease and Injury Surveillance System (DISS) is utilized on operations and is managed by the medical staff of deployed forces at all levels. It involves the monitoring, collection, and evaluation of illness/injury data on all deployed personnel who report for medical or dental treatment. It also produces the weekly EpiNATO report required on NATO operations.

03190. It allows the chain of command to establish a database of health surveillance information that assists medical support planning for both current and future operations. It assists with development of preventive medicine measures, including recommended policy on immunisation, prophylaxis and personal health education. It can also be a driving factor in the size and capability of HS resources required in different scenarios.

Outcome of the Casualty Estimate

03191. The results of casualty estimates must be considered along with all the other medical estimate factors to determine MTF, MEDEVAC, and FHP requirements and their locations.

03192. The results may also impact the remainder of the OPP. An estimation of a large number of casualties contributes to the assessment of the operational risk and may impact on the Commander's decision in favour of or against a course of action.

Casualty Estimation Tools

03193. Currently there are no approved CAF or NATO casualty estimation tools or formulas for contemporary operations. Formulas in the original CFJP 4.10 (2007) are based on nothing more recent than the Vietnam War. This shortfall is being addressed by CAF and NATO.

CBRN Casualty Estimates

03194. Like BC estimation, CBRN casualty estimation is led by the J3/J5 operational planning staffs, guided by CBRN subject matter experts. Detailed information on CBRN casualty estimation is found in:

a. AJMedP-7 *Allied Joint Medical Doctrine for Support to CBRN Defensive Operations*. (STANAG 2596); and

b. AMedP-7.5 *NATO Planning Guide for the Estimation of CBRN Casualties* (STANAG 2553).

This page was intentionally left blank

CHAPTER 4 HEALTH SERVICES PLANNING CONSIDERATIONS FOR SPECIFIC OPERATIONS

Maritime Operations[35]

0401. The most significant factor to consider in maritime operations is the constant movement of ships in the operations area. The maritime MTFs afloat are also moving, both absolutely and relative to other platforms that may require their support. Maritime areas of operation are often very large with assets spread through them, separated by great distances. These time and space issues pose significant evacuation challenges when a ship may be days away from shore. Therefore, medical timelines are also subject to frequent change.

0402. HS support to a deployed maritime force have two facets, both of which are considered elements of fleet HS support:

a. **shore support** encompasses all the activities in direct support of a maritime force.

b. **afloat support** is the responsibility of the Commander at sea who controls all assigned assets

0403. The distribution of HS resources, assets and capabilities between the maritime force and the shore medical facilities will be scenario dependent and subject to contingency planning. The fundamental principle is to provide shore-centralized distribution and support sites so that units, while afloat, can be self-sufficient.

0404. The weather at sea often changes rapidly, placing severe constraints on the operation of helicopters and ships and restricting the patient transfer between platforms. Weather severe enough to preclude flying may also prevent the use of boats to transfer personnel.

0405. There are epidemiological consequences of people living in such close proximity for extended periods, resulting in the potential for a higher likelihood of a disease outbreak and greater difficulty controlling it. This risk, in the face of austere or hostile circumstances at sea and at long distances from safe landing, requires that great importance be accorded to sanitary measures.

0406. An attack on the ship is likely to result in a large number of casualties at once. The likelihood of explosion and subsequent fire in a confined space might lead to a larger number of severe burn, smoke inhalation and blast injuries. This will result in a different set of casualty types that one can normally expect on operations in other environments. The treatment of larger numbers of near-drowned patients exposed to the cold as a result of ship loss or significant ship damage is unique to the maritime environment as well.

0407. In the maritime setting, platforms are usually not dedicated exclusively for medical purposes. This may create a tension between medical and other military priorities for the platform commander and requires careful prioritization and re-evaluation during the various stages of the operation. Whilst their inherent mobility allows platforms hosting MTFs to be repositioned quickly to meet medical requirements, it also allows them to move off-station rapidly for tactical or force protection reasons and this can disrupt established casualty evacuation pathways. Therefore, it is important that medical staff provide commanders with timely and updated advice.

0408. Furthermore, it is often necessary that ships and submarines operate for prolonged periods outside of the reach of any practical medical support beyond the vessel's integral Role 1 medical

[35] See CFJP 4.10 Chapter 7 for more information on Maritime Operations.

assets. This may increase the frequency of situations where the Commander must weigh the importance of mission elements against personnel risks that may arise from difficulties in meeting medical treatment timelines.

0409. Afloat HS largely depends on the ability to accommodate the necessary essential medical and dental treatment capabilities aboard a given vessel, squadron or task group. A wide range of ships are restricted by their design configuration and cannot carry more than their integral Role 1 medical capability. Where it is possible and desirable to embark R2B assets, these will often be constrained in size and capacity. Some coastal vessels may not have been designed with any integral medical capacity. Once deployed, the embarkation of additional HS capabilities may be limited or impossible. 1 Cdn Fd Hosp must be consulted when planning any afloat surgical capability.

0410. Long patient holding periods or a large number of casualties may rapidly consume limited medical supplies. This in turn may influence the ship's course or mission in order to resupply with critical medical consumables or to meet clinical timelines.

0411. The constraints of the maritime ship environment, together with an increasing need for inter-fleet cooperation in planning medical support, has led to the development of a more detailed description of medical capability in the maritime environment. This description of maritime MTFs expands upon the Role 1-4 capability framework, effectively subdividing the Roles of care into five Levels specifically designed to meet special maritime challenges and based upon the actual capabilities of existing CAF and allied maritime forces. These Levels of care are described in detail in AJMedP-1 *Allied Joint Medical Planning Doctrine* and are outlined as follows. Capability Levels 4 and 5 may comprise of assets established on separate cooperating vessels:

a. Level 1 – Role 1 medical support without physician, physician assistant or equivalent;

b. Level 2 – Role 1 medical support with physician, physician assistant or equivalent;

c. Level 3 – Role 2 medical support with resuscitation and damage control surgery within clinical timelines;

d. Level 4 – Role 2 medical support with primary surgery within clinical timelines; and

e. Level 5 – Role 3 medical support.

0412. Maritime medical planning involves a capability-driven approach based on relative risk, rather than the traditional casualty-rate based planning tools, which may remain valid only for large navies engaged in high-intensity operations (warfighting). Risk-based medical asset planning considers relevant factors in four main categories: area of operations, the number of ships in the task group, the nature of the operation, and the intensity of the operation. This analysis is supplemented by consideration of special tasks (e.g. diving or submarine operations) and by the operational analysis of casualty data and lessons from similar operations. This planning process may benefit from the incorporation of a weighted risk-assessment tool, such as the NATO Maritime Medical Asset Planning Matrix detailed in AJMedP-1 *Allied Joint Medical Planning Doctrine*.

0413. The nature of the maritime environment requires well-trained medical personnel. Specific maritime challenges like submarine rescue or hyperbaric medicine demand a thorough understanding of, and proper training in the specific environment (including special operational planning, diagnostic abilities, treatment techniques and procedural skills). Likewise, particular

training and experience is necessary if other specialized military medical expertise (e.g. aviation medicine, occupational health or force health protection) is to be effectively applied in a maritime context. These limitations need to be addressed by a broadened education and training of the deployed personnel and the use of telemedicine opportunities wherever possible.

0414. **Medintel issues**. In the maritime environment, standard information regarding environmental and industrial hazards, communicable diseases, and capabilities of local healthcare systems must be supplemented by the inclusion of maritime specific data requirements such as intelligence on the willingness of local MTFs to accept maritime casualties, the availability of recompression chamber facilities and the extent of local Search and Rescue, and air ambulance capabilities available to assist in evacuation from ship to shore.

0415. **Maritime FHP related topics.** Different regions of the world will present different environmental and health threats which may have an important effect on the numbers and types of DNBI casualties and the medical capabilities required. Unlike land operations where a force is more likely to deploy directly to the JOA, a maritime task force may transit many different regions enroute to its final area of operations potentially increasing exposure to a variety of health hazards. Accurate and up to date information on all relevant countries should be obtained prior to deployment as part of the medintel process. As well as influencing the medical plan this process will identify important FHP measures that must be implemented both prior to deployment and on arrival in the area of operations. Of special concern, requiring close oversight by HS, is the acquisition and approval of local food and water sources, which can place significant constraints on commanders.

0416. Medical advice to planners is provided through the Fleet Support Medical Officers on each coast.

0417. HS resupply is through the Medical Provisioning Point on either coast.

0418. **Dive and submarine medicine**. The RCN surgeon is the technical authority for all dive and submarine medicine.

Army Operations

0419. The Army may be employed in a variety of types of operations. The Canadian Army has a series of publications detailing the various types of operations, their characteristics and planning considerations. The Army publications listed in the reference section will assist the HS planner. All are available on the Army Electronic Library.

Aerospace Operations

0420. RCAF elements normally deploy as an Air Task Force (ATF). Elements of the ATF may be detached under operational control of other component commands, e.g., the long range patrol aircraft could be detached to the maritime component. HS may be provided by CAF personnel, allies, host nation, contractors, or a combination thereof.

0421. Role 1 medical support usually will be provided at an Airfield Role 1 established to support the ATF or elements thereof. Role 1 provides primary health care and will include an aviation medicine capability, e.g., a flight surgeon**.** The Role 1 coordinates for any medical support beyond its capabilities. In standalone missions the Airfield Role 1 would be placed under operational command to the ATF. When the ATF is part of a larger JTF, the Airfield Role 1 would be a sub element of a mission task-tailored HSU.

0422. The pharmaceuticals required to support flying operations is different than routine land-based operations. Clinicians must ensure they order to appropriate medications prior to deployment. Also, they must ensure they have a medical specimen transit unit for accident/incident response.

0423. **Flight Surgeon Support to Flying Operations.** During large deployments/exercises for extended periods of time, aircrew are usually accompanied by a Flight Surgeon. Ideally, the Flight Surgeon should be familiar with the type of flight operations to be supported (transport, fighter, etc).

0424. Small scale deployments/exercises often are conducted without the support of a dedicated Flight Surgeon. When a Flight Surgeon does not accompany the deployment, a 24/7 reach back capability must be available to access a Flight Surgeon for medical advice, assessment, or to gain authority for ungrounding an aircrew member. The procedure for aircrew to access Flight Surgeon consultation is detailed in the RCAF *Flight Operations Manual*.

0425. The CAF may use Flight Surgeon capabilities provided by other nations. HS planners must consult 1 CAD Surgeon to determine acceptability of using another nation's Flight Surgeon for CAF aircrew.

Special Operation Forces (SOF) Operations

0426. See CFJP 4.10 Chapter 7 for planning considerations.

Reception, Staging and Onward Movement (RSOM)

0427. RSOM is the intra-theatre deployment phase in which units, personnel, equipment and materiel arriving in a secured joint operations area are transferred from a port of debarkation to their final destination by the Commander's required date. Since arriving troops are not ready for employment, RSOM and Integration must take place for the forces to achieve full operational capability. RSOM is a deliberate activity that requires a dedicated force in place to conduct RSOM in support of deploying forces. The HS element attached to the force in place is responsible to provide care to both the deploying force and the force in place supporting the RSOM. The RSOM HS elements must have the appropriate level of operational capability prior to the arrival of the deploying forces.

0428. RSOM is a deliberately planned activity and HS planners must be engaged with the other RSOM planners. CFJP 4-0 *Support* provides information on RSOM and planning considerations.

Domestic Operations

0429. **General**.[36] Provincial/territorial governments have primary responsibility for their emergency preparedness. As such, CAF will primarily play a supporting role, and will become involved based on a formal request by that level of government. The exception to this rule pertains to the defence of Canada role, for which DND is the lead department. CFJP 3-2 *Domestic Operations* Chapter 4 describes the different types of domestic operations.

0430. **Concept of HS support to domestic operations.** The primary role of CAF HS personnel is to provide or coordinate the provision of HS to CAF members involved in the domestic operation. Provision of health care to Canadian civilians is primarily a provincial or territorial responsibility. CAF HS personnel, as a general rule, may not provide health care to civilians.

[36] This section must be read in conjunction with CFJP 3-2 *Domestic Operations*, CFJP 4 *Support* Chapter 10, and CJOC *Standing Operation Order for Domestic Operations.*

However, in accordance with QR&O 34.30(2)(a)-(d) and QR&O 35.12(2)(a)-(c), CAF HS personnel may provide care to civilians under the following circumstances:

a. in an emergency, at the discretion of the senior HS officer present, examination and treatment in order to alleviate pain and suffering and to preserve life to the extent required to evacuate the patient to a civilian health care facility;

b. where no civilian HS facilities exist;

c. at the request of a federal minister, or a provincial or territorial minister responsible for health, where it is necessary to supplement civilian health services (does not apply to dental); and

d. as directed by the MND.

0431. **Canadian Forces Forensic Odontology Response Team (CFFORT)**.[37] Federal or provincial governmental authorities may request the assistance of the CFFORT with disaster victim identification.

0432. **Domestic CONPLANs**. CJOC has a series of domestic scenario CONPLANs which provide broad guidance and are used to guide planning for specific missions. Also, CJOC's Standing Operations Order for Domestic Operations Annex K should be consulted when planning any domestic operation.

0433. **Support to Northern Operations**. Support for the north differs from other domestic operations and needs to address the unique challenges faced in this austere, sparsely populated region. Operations in the north must meet challenges based on weather and environment, increased distances, time requirements, resource availability, poor communications, and minimal civilian health care facilities. Medical plans cannot rely on the very limited civilian resources.

0434. The JTF North Medical Planner maintains a list of civilian MTF locations and capabilities. Planners should consult the most recent version of DFHP *Health Protection Recommendations for Deployments to Canada's North*.[38]

Peace Support Operations (PSO)

0435. CAF personnel participate in PSO[39] led by various IOs (United Nations, Multinational Force and Observers, etc). PSOs vary in size. Some missions may only have a small number of CAF personnel without dedicated CAF HS. The IO provides or arranges HS for the entire force usually through a combination of lead nation, host nation, adjacent nation, or contracted support. CF H Svcs Gp planners must confirm the IO's HS plan. On missions with large CAF contingents, the CAF HS element coordinates HS with the IO.

0436. When planning for CAF participation in a United Nations led PSO, medical planners should consult the *Medical Support Manual for United Nations Field Operations*.

[37] See CF H Svcs Gp Order 1023-08 *Forensic Odontology*.
[38] Currently this is DFHP Advisory 6643-44. Planners must check with DFHP for most up to date version.
[39] See CFJP 3-3 *Peace Support Operations* for more information.

Humanitarian Operations and Disaster Relief (HODR)

0437. HODR[40] is the organised response to alleviate the situation resulting from a catastrophe (natural or manmade). The aims of HODR are to save life and lessen suffering, limit damage and restore essential services to a level that enables local authorities to cope with the effects of the disaster. Due to their nature, these operations may include a large portion of medical support. In some cases the medical force might be the lead unit and therefore be supported by the components of a joint force.

0438. Usually these missions are carried out in support of other governmental departments and agencies such as GAC and in conjunction with IOs, NGOs, and other nations' militaries. It is critical that the cultures, capabilities, structures, and organizational function of these agencies be clearly understood by commanders and medical staff.

0439. On international operations GAC may request the assistance of the CFFORT with disaster victim identification.

0440. The HS aspects of HODR will differ from other military operations, particularly concerning types of injury and illness, population mix, and structure and type of HS response required. The particular nature of the operation and the geographic location will dictate the HS capabilities and skills including the personnel, equipment and materiel for geriatrics, pediatrics and obstetrics. Clear guidance on any legal issues, such as liability of HS personnel, must be obtained prior to deployment.

0441. The deployment of military health care assets requires a clear understanding of the philosophy behind such assistance, ensuring the needs of the affected population will be served, both in the short and longer term. The following basic tenets must be observed:

a. many organizations will be involved. Care needs to be taken to define areas of responsibility, to avoid competition and either duplication of effort or gaps in the overall care provided. In principle, medical humanitarian assistance by CAF will only be provided on a subsidiary basis when IOs or NGOs are unable to meet the overall requirement, or if overall capabilities are exceeded;

b. the affected population should be encouraged to be self-sufficient. CAF resources are there to support, not replace, the host nation health system. Effort should be made to place as much of a "host nation face" on care delivery so as to maintain the population's confidence and support for the host nation government;

c. a careful balance between the mandate, the extent of technically-possible care and the level of appropriate care is necessary, taking into account aspects like the availability of HS follow-up capabilities, own means and capabilities, and the need to have sufficient capabilities and capacities left for support of CAF personnel;

d. socio-cultural, gender, and religious customs and rules should be considered when providing humanitarian assistance;

[40] This section should be read in conjunction with CFJP 3-4.1 *Humanitarian Operations and Disaster Relief Operations*, CF H Svcs Gp Instruction 6020-04 *Guidelines on Humanitarian Activities for the CF H Svcs Gp*, AJMedP-6 *Allied Joint Civil-Military Medical Interface Doctrine*, and AMedP-6.1 *The Civil-Military Planning Process on Oral Health Care and Deployment of Dental Capabilities in all Operations with a Humanitarian Component*.

e. a return to the pre-crisis status quo, in terms of self-sufficiency, must be as rapid as possible to avoid long-term aid dependence by the affected nation; and

f. short-term humanitarian assistance usually has long-term impact. Disengagement and the transfer to permanent or semi-permanent organizations must be ensured before considering engagement and particularly withdrawal.

0442. HS support must meet standards of health care acceptable to both Canada and the receiving country. The aim is to provide treatment outcome comparable to the normal peacetime standards of the receiving country.

0443. Expertise in preventive medicine will be required to ensure that the effects of the disaster are not made worse by the breakdown of the infrastructure in the affected area. Poor living conditions and an absence of basic utilities may contribute towards the breakdown of health in the population. The possibility of an epidemic is high.

0444. The overall responsibility for producing an effective medical evacuation system lies with the affected nation. Patients should not normally be removed from the country without their nation's authority, insofar as such an authority exists.

0445. Further planning considerations for HODR are found in CFJP 3-4.1 *Humanitarian Operations and Disaster Relief Operations*.[41]

0446. In addition to providing health care to CAF personnel and civilians from the affected nations, the HS element may be tasked to provide health care to Canadian civilians from other governmental departments and agencies.

Non-Combatant Evacuation Operations (NEO)

0447. NEOs[42] are operations in support of GAC. Non-combatants (Canadians and approved foreign nationals) are evacuated from foreign countries to designated safe havens when their lives are endangered by war, civil unrest, or natural disaster. Planning considerations for NEO are found in CFJP 3-5 *Non-Combatant Evacuation Operations*.

0448. HS elements may be tasked with the following:

a. **HS to CAF personnel**. Role 1 medical staff will provide support to CAF personnel that are involved in the NEO. Role 2 and 3 medical support should be available through existing arrangements in place for Head of Mission (HOM) staff in the affected nation or neighbouring countries. Sea and/or air evacuation of CAF personnel will be used if available. The possibility of utilising coalition medical facilities should be investigated by the recce party or by the Canadian Defence Attaché prior to the arrival of CAF elements;

b. **medical support to evacuees**. The HOM staff is responsible for arranging medical support to evacuees. Only in an emergency will CAF medical personnel provide medical support to evacuees. If GAC requests CAF assistance to treat evacuees, the JTF HS element may require augmentation; and

c. **medical screening**. The medical screening seeks to identify individuals who are suffering from sickness or other medical conditions that may pose a threat to the health of other evacuees and members of the evacuation organization. An example is a person with a

[41] Also see AJMedP-6 *Allied Joint Civil-Military Medical Interface Doctrine*.
[42] This section should be read in conjunction with CFJP 3-5.

highly contagious illness. If GAC requests CAF assistance to conduct medical screening, the JTF HS element may require augmentation.

0449. **Other medical considerations**. Other medical considerations include the following:

a. the evacuee population will be diverse ranging in age from infants and children to the elderly. The range of medical conditions and special conditions (such as limited mobility and mental capacity) is much greater as well. Information regarding the numbers and medical conditions of the evacuee must be obtained as early as possible;

b. environmental health assessments are required for effective force preparation. These may also be required for evacuees if a significant change of environment within the area of operations or from the host nation to a safe haven or forward mounting base is anticipated; and

c. the policy and procedures governing mortuary matters related to the evacuees must be determined and specified in the Operation Order.

Capacity Building, Training and Mentoring of Host Nation Health Services

0450. Helping a host nation develop self-sustaining, culturally appropriate education and training capabilities will allow incremental building of future capability and capacity for their health sector. B-GL -322-010/FP-001 *Stability Activities and Tasks* and AJMedP-6 provide guidance and planning consideration for when CAF HS elements conduct training or mentoring tasks.

Multinational Operations

0451. **NATO led multinational operations**. NATO military operations are conducted as a multinational effort. Multinational co-operation poses challenges for HS due to differences between nations' clinical education, qualification, skills training, and clinical scopes of practice.

0452. AJP-4.10B *Allied Joint Doctrine for Medical Support* Chapter 10 and AJMedP-9 *Multinational Health Service,* AJMedP-1 *Allied Joint Medical Planning Doctrine,* and Chapter 7 of the ABCANZ *Coalition Health Interoperability Handbook* provide guidance on HS planning in coalition operations.

0453. **Non-NATO Multinational Operations.** It is likely that any future missions in which Canada participates will be as part of a multinational response. While NATO forms a core part of Canadian international partnerships, Canada may find itself in non-NATO led coalitions. ABCANZ has a series of standards that CAF HS has adopted. Of particular note for MMUs are ABCANZ Standard 2108 *Medical Professional Credentialing/Privileging* and ABCANZ Standard 2109 *Multinational Medical Unit Collective Training and Validation Standard*.

0454. **Multinational medical unit (MMU)**. In multinational operations, Canada may contribute to, or lead, a MMU. NATO uses a modular approach to designing MMUs. Information on the modules can be found in CFJP 4.10 Chapter 2. The lead nation is responsible to ensure that all modules are sufficiently equipped, manned, trained and evaluated in order to meet the operational requirements. Additional responsibilities of the lead nation include:

a. communication and information technology;

b. security, protection, and general and medical intelligence;

c. supply (ie food, water, ammunition);

d. transportation and construction of the modules/facility;

e. interface between modules; and

f. power supply, cooling and heating.

0455. AMedP 9.1 *Modular Approach for Multinational Medical Treatment Facilities* and AMedP-9.2[43] *Guidelines for a Multinational Medical Unit* provide planning considerations for a MMU.

0456. **Mutual support agreements**. On multinational operations, it may be beneficial to develop mutual support arrangements with other troop contributing nations to provide HS. This is especially useful when Canada has a low number of forces co-located with the forces of another nation or during specific operations or phases of an operation, e.g., during a relief in place or RSOM. Such arrangements are conducted through the CJOC Political Advisor.

0457. **Transfer of authority**. Whenever CAF HS elements are declared under operational control of another nation or coalition (e.g., NATO), the instrument of transfer of authority must clearly state any national caveats on the employment of CAF HS personnel.

Medical Support to Canadian Led Multinational Units (Headquarters, Logistics)

0458. Role 1 medical support is usually a national responsibility. In the context of multinational facilities, particularly deployed headquarters, the Commander shares responsibility with national support elements for ensuring Role 1 care for all members of that headquarters. Unless other arrangements are agreed, when Canada is lead nation for an HQ or other multinational unit the CAF will provide the Role 1 medical support to personnel from all contributing nations.

Unique Environments

0459. HS must operate in, and provide support to, CAF operations in unique environments such as arid, mountain, tropical, cold weather, and urban. These may require unique clinical skills suited to the environment and climatic conditions, and environment-specific supplies, equipment, and training. In hot, cold, dry, dusty, or humid conditions, special care must be taken for the management of temperature-sensitive HS equipment, supplies, and pharmaceuticals. A single JOA may have a combination of two or more of these environments.

0460. **Arid environments**. A variety of battlefield conditions apply in hot climatic regions with the emphasis on fast moving operations, possibly over long distances. HS must have the capacity to rapidly attend, manage and evacuate casualties. The requirement to alleviate the effects of a hot climate is paramount. The hot climate will create additional hazards, physiological effects, and change casualty management. Factors such as heat stress, diurnal temperature variations and a lack of water must be incorporated into HS planning.

0461. **Mountain environments.** Mountain operations are characterized primarily by the difficulties encountered in movement. The inaccessibility of certain regions restricts movements of personnel and limits the strength of forces that can be maintained and deployed. The proportion of litter cases to ambulatory cases increases in mountainous terrain as even a slightly wounded individual may find it difficult to negotiate the terrain. AE of patients should be used whenever possible. The reduction of time between injury and treatment may be a determining factor in the patient's recovery; therefore, evacuation by helicopter, which is the safest, most rapid and comfortable means, is most desirable. Aircraft availability, operating capabilities and limitations

[43] Formerly numbered AMedP-1.3.

should be considered prior to operating in mountainous terrain. See B-OG-302-005/FP-001 *Mountain Operations* for more information.

0462. **Tropical environments.** Many of the problems associated with arid operations can also be expected with tropical operations, ie, the desert environment is hot/dry while the jungle is hot/wet. For that reason, many of the principles of patient management for each situation also apply. A hot/wet climate is characterized by high ambient humidity. Terrain type most likely involves dense vegetation with its associated restrictions on physical movement and evacuation.

0463. A high risk of environmental heat stress exists. The availability of natural water may be limited and its quality may be unreliable. With high humidity, medical facilities themselves may easily become breeding grounds for organisms.

0464. The greatest problems in providing adequate HS in jungle operations are the wide dispersion of supported units, inadequate roads, and insecure lines of communication. In addition, larger numbers of litter patients can be expected since even slightly wounded individuals may find it impossible to walk through dense undergrowth. As a result, the patient ordinarily classified as ambulatory may become a litter case. Forward AE helicopters equipped with integral personnel rescue hoists provide the quickest means of extracting patients through a canopy of jungle foliage; however, tactical and weather considerations may negate the use of helicopters. See B-OG-302-004/FP-001 *Jungle Operations* for more information.

0465. **Cold weather environments.** Military operations conducted under conditions of cold climate differ primarily in the tactical and logistic limitations imposed by adverse climatic conditions, and in the special types of equipment, training, and procedures necessary to overcome these limitations, such as maintaining a warm chain for patients and temperature sensitive medical supplies/pharmaceuticals. Cold accelerates shock and reduces recovery possibilities of exposed patients. Evacuation by litter is extremely difficult under conditions of cold or deep snow, and litter bearers are subject to excessive fatigue.

0466. Arctic conditions make surface evacuation of patients, without specially designed vehicles, difficult in winter and virtually impossible in summer due to the unpredictable surface condition of snow, ice and tundra. The most important consideration is to prevent loss of body heat from the time of injury or illness. This includes additional individual protection, the provision of shelter and external heat. To maximize medical outcomes, the optimum time frame for evacuation of patients is likely compressed, particularly if heat loss cannot be adequately prevented. HS units may have to be sited closer to their supported unit, be more mobile and/or more plentiful than in temperate climates. A variety of vehicles may be needed for patient movement. The use of helicopters for patient evacuation should be emphasized. See B-GL-323-003/FP-001 *Operations in Cold Weather* for more information.

0467. **Urban environment.** The world is in a period of massive urbanization. A trend of migration from rural to urban areas is occurring across the globe and is especially evident in developing nations. Combined with exponential growth in global population over the last quarter century, this migration has created urban areas that contain not only large concentrations of the population, but key governmental and economic centres in their respective regions.

0468. HS units operating in urban environments must take into account the psychological impact of intense, close combat against a well-trained enemy, the effects of non-combatants in close proximity to military forces, and the medical and logistic problems associated with operations in urban environments. The need for special stores, increased consumption, pervasive threat, mobility

difficulties, the vertical dimension, population friction, communications problems and other aspects of urban operations require changes to the HS system that is currently optimized for open and motorized operations. HS and operational plans must be completely integrated.

0469. See B-GL-322-007/FP-001 *Urban Operations* for more information.

CBRN Defence Operations

0470. The employment or threat of chemical, biological, radiological, and nuclear (CBRN) weapons and other toxic materials poses serious challenges to military operations worldwide. CBRN incidents include the detonation of CBRN weapons and the accidental or deliberate release of chemical and biological warfare agents, toxic industrial materials (especially air and water poisons), biological pathogens, and radioactive material. The deadly, destructive, and disruptive effects of these weapons and materials merit continuous consideration by commanders and staff.

0471. Medical planning for operations in CBRN environments is complex and requires CBRN medical SME advice through DHSO Operational Medicine. CBRN medical planning factors are described in AJMedP-7, CFJP 3-8.1, and the ABCANZ *Coalition Health Interoperability Handbook*.

0472. **Factors.** The following factors must be considered in planning medical capabilities for CBRN Defence operations:

a. CBRN incidents have the potential to cause large numbers of incapacitated casualties who need intensive care. In the first few hours after a CBRN incident, MTFs may be overloaded with casualties who require lengthy hospitalisation. Hence, MTFs should be near main transportation routes, and have access to supplementary transport facilities;

b. wearing individual protective equipment reduces individual medical treatment efficiency at a time when manpower requirements increase. Casualty decontamination requires manpower and may reduce the number of personnel available to treat casualties. Heat stress will require more frequent rest breaks, further reducing care capability;

c. establishing and maintaining a facility with collective protection and continuously monitoring the air inside the shelter for contaminants calls for additional personnel. These procedures also decrease the capability to treat casualties efficiently and effectively; and

d. sustainment of HS assets forced to continue to operate within CBRN hazard areas will demand additional personnel.

This page was intentionally left blank

CHAPTER 5 EXERCISE PLANNING AND LESSONS LEARNED

Section I Exercise Planning

General

0501. Exercises are carried out for the purpose of training and evaluating a force. HS exercises aim to improve the HS support provided to a deployed force and seek to enhance HS cooperation and interoperability among the different services and nations that may be present.

0502. Although differences between operation and exercise planning are apparent, exercise planning is to be conducted as close as possible to operational planning to engender familiarity with the process. HS exercise planning needs to cater for both exercise casualty management play and real life medical coverage. Whenever possible exercise casualty play should be distinct from real life medical coverage.

0503. Evaluation and certification of HS capabilities prior to deployment will be conducted during such HS exercises and can be of immense value in identifying areas where additional training is required prior to deployment or areas where further monitoring is required once the force is deployed.

0504. Following the principle of "train as you intend to fight", HS should be an integral part of all exercises during the pre-deployment training of the entire JTF. HS planners must be fully engaged with other exercise planners in order to ensure that HS training objectives are incorporated into the overall exercise objectives.

0505. HS scenarios on exercises must be designed to challenge more than the HS forces. They must exercise the interrelationships between HS elements and the supported force to include command, control, and communications, force protection, sustainment, etc. JTF medical and non-medical personnel must be familiar with the tactics, techniques and procedures that will be used in theatre.

0506. Exercises at unit level or higher shall incorporate GBA+ ensuring a portion of exercise vignettes involve gender considerations and related issues, incorporating GBA+ into exercise headquarters' staff activities and processes, and ensuring HQ staff with appropriate training are available to support GBA+ efforts.

0507. To determine if training meets the objectives of the exercise to the appropriate standard, it is necessary to conduct independent evaluation. The level of evaluation will vary depending on the size of the exercise. AMedP-1.6 *Medical Evaluation Manual* (STANAG 2560) and ABCANZ Standard 2109 *Multinational Medical Unit Collective Training and Validation Standard* provide guidance on how to conduct evaluations. A CF H Svcs Gp Medical Evaluation Manual is under development.

Health Services Exercise Control Organisation

0508. The main HS elements of the exercise control organisation will be:

a. **Directing Staff (DS)**. The DS controls the exercise following the Main Events List and Main Incident List, which determine all exercise activities. Medical DS are linked to the Casualty Organisation (CASORG), through which Casualty Simulation (CASSIM) is facilitated;

b. **CASORG**. Will have its own HQ responsible for coordinating the activities of the CASORG Cells. CASORG is made up of the following cells:

   i. Reception: To document and register role players;

   ii. CASSIM: To make up and brief role players;

   iii. Insertion: To escort role players from CASSIM to the incident location;

   iv. Transport: To provide the correct amount and types of vehicles required to transport role players to the incident location;

   v. Logistic support: To provide the day to day administrative requirements of the CASORG and role players (feeding, accommodation, etc.);

   vi. Umpires: To observe, evaluate and report on the performance of the player medical units in dealing with the role players;

c. Clinical Mentor to provide input and guidance on proper clinical decision or best practices to clinical staff during hotwash and debrief session, but do not necessarily reporting on performance;

d. **Medical Higher Control** is the theatre level medical organisation that simulates the Medical Coordination Cell and Patient Evacuation Coordination Cell; and

e. **Medical Lower Control** represents the lower level medical organisation (medical units) that are not physically taking part in the exercise.

Declaring Operational Readiness

0509. In order to confirm that personnel, vehicles, and equipment are ready for employment on operations there is a requirement for a formal mechanism to declare operational readiness. In addition to any requirements imposed by the supported command, the process to be followed by HS elements is detailed in CF H Svcs Group Order 6000-14 *Operational Readiness Declaration for Deployment*. Linked to operational readiness is clinical readiness addressed in CF H Svcs Group Order 3100-22 *Maintenance of Clinical Readiness Program*.

Section II Lessons Learned

0510. **General.** Lessons learned is a means by which the CAF HS can institutionalize experience gained from operations and exercises. Lessons learned, both clinical and military, influence the development of, or changes to, doctrine, structures, capabilities, organizations, training, equipment, supplies, and tactics, techniques and procedures.

0511. HS units and headquarters HS staffs have key roles to play by identifying lessons observed during operations and exercises. The chain of command must ensure all potential lessons are correctly staffed and contribute to the analysis process. Observations should be staffed through the chain of command to CF H Svcs Gp HQ/DHSO/J7.

0512. The following sub-paragraphs provide guidance on the information required when submitting observations:

a. **Observation**. Describe what you noticed. Give a short description of what happened and the results of dealing with it. This statement can be positive (ie, something that worked well) or negative (ie, something happened that should not have or something did not happen that should have). Try to limit each observation to a single problem or issue. Answer the question: WHAT HAPPENED?

b. **Discussion**. Explain why it happend. This answers the 'who, what, where, when, why and how' questions about the observation. Talk about the actions taken to work around a problem. If a problem could not be solved explain why. Answer the question: WHY DID IT HAPPEN?

c. **Conclusion**. Provide a short summary. This is a statement that completes the observation and discussion and it should be a concise summary of the situation observed. Answer the question: WHY DOES IT MATTER?

d. **Recommendation**. Provide a recommendation to solve the problem or how to repeat the success. Talk about what and how; WHAT should be done and HOW to do it. Often it includes new or modified publications, procedures, training or new equipment.

This page was intentionally left blank

ANNEX A – MEDICAL ESTIMATE TEMPLATE

Copy Number ____ of _____
Title of Headquarters (HQ):
Location of HQ:

Date Time

References.

STEP 1 – MISSION ANALYSIS (WHAT MUST I DO?)

1. Assumptions: Assumptions must be realistic and their validity confirmed by higher authority, either medical or operational. Assumptions are modified when specific planning guidance and factual data become available. Wherever possible, requests for information should be initiated to turn each assumption into a fact.

   a.

   b.

2. Superior Commander's Intent (Two levels up): (What is my role in the superior commander's plan?)

FACTOR	CONSIDERATION	DEDUCTION **Use a qualifier after each deduction:** **a. (PfP) - Point for my plan** **b. (PG) – Planning Guidance** **c. (T) – Task** **d. (RFI) – Request for Information** **e. (C/R) – Constraint/Restraint** **f. (G) – Grouping** **g. (CI) – Coordinating Instruction**
Intent:		

3. Higher Operational Commander's Mission and Concept of Operations (CONOPS) (One level up):

FACTOR	CONSIDERATION	DEDUCTION
Mission:		

Intent:		
Scheme of manoeuvre:		
Main effort:		
End state:		

4. Assigned tasks:

FACTOR	CONSIDERATION	DEDUCTION

5. Implied tasks:

FACTOR	CONSIDERATION	DEDUCTION

6. Limitations. (1) Constraints - Events that restrict freedom of action and are normally stated as a requirement to do something; (2) Restraints - Prohibitions on actions and normally stated as something you cannot do):

FACTOR	CONSIDERATION	DEDUCTION
Constraints (must do)		
Restraints (cannot do)		

7. Changes to the situation. Has the situation evolved since you received your orders that may result in one of the following: (1) Mission confirmed and Plan still valid; (2) Mission confirmed but Plan requires modification; and (3) Mission no longer valid:

FACTOR	CONSIDERATION	DEDUCTION

8. Mission Statement:

Medical Mission Statement
who – what – when – where – why

9. Points for clarification. List points discovered in your Mission Analysis that you want to clarify with Higher Commander or Staff (operational or medical):

a.

b.

STEP 2 - EVALUATION OF FACTORS (HOW DOES THE SITUATION AFFECT MY MISSION?) Some factors listed below are further developed in Chapter 3. Some items may be addressed under two or more factors. Planners must identify the factors that are important to their estimate.

10. Environment. The assessment of the environment should be conducted in collaboration with intelligence, Med Int, and FHP staffs:

a. Terrain:

FACTOR	CONSIDERATION	DEDUCTION
Topography (Land mass, coastline, mountains, jungle, desert, likelihood of natural disasters (earthquakes, volcanoes, etc.))		
Urbanization		
Infrastructure		
Roads/routes • suitability for evacuation • assigned routes • restricted routes • distances • host nation laws		
Airports		
Seaports		
Rivers		

b. Meteorology (How will weather and light affect your plan?):

FACTOR	CONSIDERATION	DEDUCTION
Climate		
Hot/cold		
Wet/dry		
Light conditions		
Wind		
Cloud cover		

c. Health risks (use CBRNE3T). Med Int should provide a Health Hazard Assessment. In a mature theatre FHP should provide health surveillance data:

FACTOR	CONSIDERATION	DEDUCTION
Chemical		

Biological		
Radiological		
Nuclear		
Explosive		
Environmental		
Endemic		
Traumatic		
Living and sanitary conditions		
Water supply		

d. Human terrain. This is especially important in humanitarian operations and disaster relief operations:

FACTOR	CONSIDERATION	DEDUCTION
Civilian population • Numbers • Locations • Religion • Events (religious periods and traditional vacations) • Ethnicity • Cultural • Economic • Social • Gender • Age • Health • Languages • Population movement • Criminal organizations • Attitude towards the mission		
Gender Based Analysis+		
Refugees/displaced persons		
Host nation resources • Medical/Dental • Labour		

• Translators
• Real estate
  • Land
  • Buildings
• Power
• Water		

Host nation laws		
Other Stakeholders • IO/NGO		

11. Enemy/Threat:

FACTOR	CONSIDERATION	DEDUCTION
Intention		
Organization and equipment		
Strength and Disposition		
Tactics		
Weapons effects		
Cyber threat		
Health status		
Health Services		
Compliance with LOAC		
CBRN		
Child soldiers		

12. Friendly Forces/Own Troops:

FACTOR	CONSIDERATION	DEDUCTION
Organization and equipment		
CAF/Coalition Forces • Supported • Supporting • Flanking • Concept of operations • Phases • Type of operation • Disposition/locations		

• Boundaries		
Force protection		
Health/immunization status		
Special medical requirements • Flight Medicine • Dive medicine • Tropical medicine		
Status of training • Medical • Non-medical • Driver		
Canadian civilians in support of CAF		
Other Government Departments and Agencies		
IOs/NGOs		

Coalition HS (from other nations or IO)
• Theatre medical plan
• Medical C2
• Medical Advisor/Medical Director
• MTF
  • Locations
  • Capability
  • Capacity
• MEDEVAC
• Multinational
• Liaison officers
• Technical Agreements		

Civil-Military Medical Interface		
Other supported elements • Prisoners of War and detainees		

• Refugees and displaced persons		
Coalition Medical Rules of Eligibility		
Communications and Information Systems • Verbal (phone and radio) • Electronic • DWAN/Internet • National • Coalition • Secure • Non-secure • Capacity for telemedicine • Information exchange requirement (reports and returns) operational/medical/ national/coalition		
Medical software programmes • National • Coalition		

13. Patient estimates:

FACTOR	CONSIDERATION	DEDUCTION
Population at Risk		
Casualty Rate Estimation • Battle casualties • Disease and non-battle injuries • Casualty rate • Casualty profile • Casualty flow		
CBRN casualties		

14. Time and Space. The location of, and distances between, friendly elements is a key determinant in locating MTFs and the type and quantity of MEDEVAC assets required. The geographic disposition of the friendly forces must be assessed for time and space in order to try and meet the optimal clinical timelines:

FACTOR	CONSIDERATION	DEDUCTION
Deployment timelines		
Duration of mission		
Phases of the operation		
Location of, and distances between, friendly elements		
10-1-2(+2) treatment timeline		
Location of, and distances between known MTFs • Coalition • Host nation • Third nation		
Speed of ground ambulances		
Reaction time for Forward AE		
Flight radius for various Forward AE platforms		
Tactical and Strategic AE response timelines		
Scheduled sustainment flights/convoys		

15. Medical Logistics:

FACTOR	CONSIDERATION	DEDUCTION
Materiel • Equipment • Supplies • Property exchange		
Pharmaceuticals		
Blood and blood products		
Special handling requirements		
Medical gases • Availability		

• Quality • Fittings (Canadian versus other nation standards)		
Legal/regulatory requirements		
Geneva Conventions (protection of materiel)		
Clinical waste		
Multinational medical supply sources		
Imposed days of supply		
Equipment repair		
General Logistics • Water • Food • Petroleum, oils, lubricants • General maintenance • General materiel storage and handling • General services • Contracting support • General host nation support • RSOM • Mortuary affairs • Movements • Transport • Laundry		

16. Engineering:

FACTOR	CONSIDERATION	DEDUCTION
Infrastructure • CAF • Contracted • Multinational		
Site preparation		
Power		

17. Other factors:

FACTOR	CONSIDERATION	DEDUCTION

18. Assessment of Tasks.

a. This is a summary of all the HS tasks required to support the mission. This will determine the HS resources required by phase of the operation. The tasks should be grouped by the functional areas of: Command and Control, Communications and Information Management; Force Health Protection; Treatment; Medical Evacuation; and Medical Logistics.

b. In addition to identifying tasks and resource requirements, the deduction column may also provide: coordinating instructions, such as phasing or sequencing; and planning guidance, including constraints or restraints, to subordinate commands. It may also identify the requirements for requests for information.

c. The deduction may identify risks and mitigation strategies. Major issues must be raised to the Commander.

TASK	RESOURCES REQUIRED	DEDUCTION

STEP 3 – COURSE OF ACTION DEVELOPMENT (WHAT ARE MY OPTIONS FOR A SOLUTION?)

19. At the operational or formation level options are developed on how to medically support each of the Commander's COAs. At the tactical level (e.g., Field Ambulance), the CO may develop full COAs. Each option/COA should address the Commander's intent and scheme of manoeuvre by phase to include:

a. Evacuation and treatment of patients from point of injury/illness to definitive care.

b. Resource requirements for MTFs and MEDEVAC;

c. Preventive medicine;

d. HS logistics;

e. HS C2;

f. advantages and disadvantages; and

g. identification of risk with mitigation strategy.

20. It is not always necessary to develop multiple options to support each of the Commander's COAs. There may only be one way to medically support the COA.

STEP 4 - COMMANDER'S DECISION

21. The Commander will decide on which COA will be developed into a CONOPS. If more than one option for HS support was developed for the COA, the Commander, based on advice from DHSO will determine which option is to be developed.

STEP 5 - DEVELOP HS CONCEPT OF SUPPORT

22. Once the Commander selects a COA the relevant HS support option is developed into a concept of HS support as part of the Commander's concept of operations. This will subsequently be further refined into the HS support plan. See annex B.

This page was intentionally left blank

ANNEX B – HEALTH SERVICES SUPPORT PLAN TEMPLATE

This annex is illustrative of what may be included in a HS annex (normally the annex K) to the operational commander's operations order. It is adaptable for the various levels of command. Details will depend on the level of command, and the size and complexity of the mission. It should be modified as required to meet the requirements of the mission.

References. Only list documents essential to the understanding of the content of the annex. They are to be listed in the order they appear in the text.

1. **SITUATION.** Refer to the main OP O Situation paragraph. This annex only includes items pertaining to HS.

   a. Strategic Background. Summarise key events of HS interest.

   b. Health Hazard Assessment. Identify the impacts of: terrain; weather and climate; environmental health threats; flora and fauna; endemic diseases; and CBRN. Details may be included in a medintel appendix.

   c. Opposing Forces. Identify enemy forces and appraise their general capabilities. Describe the enemy's composition, disposition, location, strength, and probable courses of action. Identify adversaries and known or potential terrorist threats within the area of operations. Identify adversary's compliance with the Geneva Conventions, with attention to targeting protected facilities, vehicles, and personnel. Identify if there is use of child soldiers. List the enemy capabilities that could influence the HS mission.

   d. Friendly Forces. Describe the aspects that impact HS operations. Identify the supported and supporting commands and components (what friendly forces are covered by this HS plan); friendly force disposition (current or planned); friendly force HS capabilities and locations; coalition medical C2, host nation HS capabilities and locations; population at risk (may include allies, coalition, Canadian civilian and contract personnel, host nation). Describe any bi-national and multinational HS arrangements/agreements. MND approval to treat civilians, if required (when issued, this is included as a reference).

   e. Other Stakeholders. Identify the international organizations (IO) and non-governmental organizations (NGO) impacting HS operations within the area of operations. Examples include the United Nations, World Health Organization, International Committee of the Red Cross, and Médecins sans Frontières.

   f. Civil-Military situation. Identify available host nation resources to include medical treatment facilities, interpreters, and labour.

   g. Civil Considerations. Describe the critical aspects of the civil situation that impact HS operations, such as: cultural or religious sensitivities and events (religious periods and traditional vacations); different ethnic groups; gender considerations; internally displaced persons and refugees; political, economic, and environmental issues; and local attitudes towards CAF operations. Describe key gender based analysis+ issues that impact HS operations.

   h. Limitations. Identify any constraints or restraints that affect HS.

i. Attachments and Detachments. List HS units attached to, or detached from, the issuing headquarters. State when each attachment or detachment is effective, and for what duration.

j. Assumptions (if any). This may include a synopsis of the casualty estimate.

2. **MISSION.** A short description of the who, what (task), when, where, and why (purpose) that clearly indicates the action to be taken and the reason for doing so.

3. **EXECUTION.**

a. Commander's Intent. This may include separate HS lines of operation, e.g., support own troops, humanitarian assistance, training/mentoring.

b. Concept of HS Support. Describe how the HS plan supports the Commander's intent and concept of operations for each phase of the operation. It must account for every CAF person in each location in the JOA. It should include:

i. The continuum of care from point of wounding or illness to final disposition /definitive care.

ii. Medical Treatment Facilities (MTF) (Canadian, allied, multinational, host nation, contracted. List only those likely to be used by CAF):

(a) Role 1.

(b) Role 2 (Basic and Enhanced).

(c) Role 3.

(d) Role 4.

(e) Maritime (ashore and afloat).

iii. Medical evacuation:

(a) Ground.

(b) Maritime.

(c) Aeromedical evacuation.

(i) Forward.

(ii) Tactical.

(iii) Strategic.

(iv) Aeromedical staging facilities.

(d) Route/air space restrictions.

(e) Force protection for MEDEVAC elements.

(f) Process and authority to launch MEDEVAC elements.

(g) Casualty support teams.

(h) Patient Evacuation Coordination Cell.

(i) Medical regulating.

(j) Patient tracking.

iv. Force Health Protection:

(a) Health surveillance (Disease and Injury Surveillance System).

(b) Preventive medicine.

(c) Vector management.

(d) Medical counter-measures.

(e) Deployable Health Hazard Assessment Team.

v. Medical intelligence.

vi. Dental.

vii. Mental health.

viii. Specialties. Dive, flight, tropical medicine, etc.

ix. Chemical, Biological, Radiological, and Nuclear.

x. Support to civilians, refugees, internally displaced personnel, affected population (particularly in humanitarian and disaster relief operations). The mechanism for the transfer of civilian patients to civil authorities.

xi. Mass casualty plan. Usually attached as an appendix.

xi. CIMIC. Listed here if directly supporting CIMIC activities.

c. HS Scheme of Manoeuvre. Should list key activities by phase of the operation. It may be shown graphically (see annex F for example).

d. Main effort. Should list the HS main effort by phase.

e. End State.

f. Grouping and Tasks. When required there should be clear delineation between any HS lines of operation, e.g., support own troops, humanitarian assistance, training/mentoring. Groupings and tasks may change by phase. At the CJOC level tasks are given to CF H Svcs Gp and any assigned HS elements. Only CF H Svcs Gp HQ can task HSGs and national level units.

g. Coordinating Instructions:

i. Timings, including deployment and RSOM timelines, duration of the mission, opening and closing times of MTFs.

ii. Key locations and boundaries, including locations of supporting MTFs.

iii. Patient return policy.

iv. Patient tracking. To include when CAF patients are in another nation's military or civilian MTF.

v. Medical Rules of Eligibility (MRoE):

(a) Foreign military personnel.

(b) Canadian civilians (other government department and agencies, contractors).

(c) Other civilians in support of the CAF (host nation locally engaged employees, or third country contractors).

(d) Host nation military and civilian.

(e) IOs and NGOs.

(f) Differences between Canadian and Coalition MRoE.

vi. Health documentation and records.

(a) Health records, including electronic health records.

(b) Management of own, allies, host nation, detainees' records.

(c) Process for obtaining health records for CAF patients when not in a CAF MTF.

vii. Defence and force protection measures. Protection, marking and notification of MTFs, MEDEVAC platforms, equipment and personnel. This includes the Red Cross policy.

viii. Managing health care for persons deprived of their liberty. To include provisions for child soldiers.

ix. HS instructions for deployments.

(a) FHP recommendations. These may be an appendix, and should be given to force generators as early as possible. To include required immunizations, disease vector control, required health education, food and water inspection, and sanitation training.

(b) Medical and dental screening.

(c) Personal medication and prescription eyewear.

(d) Post deployment screening and reintegration process.

(e) Care outside CAF HS system. Blue Cross Card, Out of Country Health Care Provider Reimbursement form, provincial health card (Reservists), aboriginal status card.

x. Credentialing. Describe the process for CAF health care providers to work in other nation's MTFs and for other nations' health care providers to work in a Canadian MTF.

xi. Home Leave Travel Assistance (HLTA) replacement policy. Identify which positions will require HLTA backfills.

xii. Specialist tour length. Identify maximum number of days that specialists will be allowed in theatre, and the rotation plan.

xiii. Medical repatriations. Coordinated through J1.

xiv. Mortuary affairs. How to link to mortuary affairs (a logistics function).

x. Lessons learned process.

xi. Dress and equipment.

4. **Service Support**

a. Medical logistics. Identify multinational solutions or if another country is the lead nation for specific commodities.

i. Class VIII (NATO Class II).

(a) Initial load.

(b) Recommended days of supply. This may build by phase.

(c) Source - national, lead nation, contractor, etc.

(d) Mechanism for communicating requests for resupply.

(e) Known sustainment flight/convoy frequency.

(f) Emergency resupply procedures.

(g) Process for local purchase.

(h) Management of controlled items.

(i) Special handling requirements.

(j) Donation/disposal procedures.

ii. Blood management.

iii. Medical gases.

iv. Medical/dental equipment repair.

v. Medical biohazardous waste.

vi. Property exchange. To include between nations.

vii. Forward Medical Equipment Depot(s) and Medical Provisioning Points.

b. General logistics and engineering. Identify source for water, feeding, accommodations, transportation, laundry, waste removal, interpreters, general labour, power, site preparation, etc. Identify from whom multinational medical units will receive general logistics/engineering support.

c. Finance:

i. Reimbursement for service.

ii. Payment for use of host nation or contracted HS.

iii. NATO Common funding.

5. **Command and Signals**

a. HS command and control architecture:

i. National and coalition.

ii. Key HS personnel.

(a) CO HSU.

(b) SMA/JTF Surgeon.

(c) National Medical Liaison Officer(s).

(d) Aeromedical Evacuation Coordination Officer.

iii. Professional-Technical governance. Medical and dental.

iv. Theatre/regional/sector/component Medical Coordination Cell(s).

v. Theatre/regional/sector/component Patient Evacuation Coordination Cell(s).

vi. Link to Joint Task Force Support Component, if applicable.

vii. Liaison.

b. Communications:

i. Voice and computer. Secure and non-secure, national and multinational.

ii. Radio net diagram.

iii. Contact info for key allied MTFs and host nation MTFs.

iv. Common use software programs, national and multinational, e.g. CFHIS, DISS, NATO MEDICS, NATO Trauma Registry, EpiNATO.

v. Meetings/briefings.

vi. Telemedicine.

c. Transfer of authority. National and coalition - whom, when, what caveats.

d. Reports and returns. List national and coalition reports and returns to include timings.

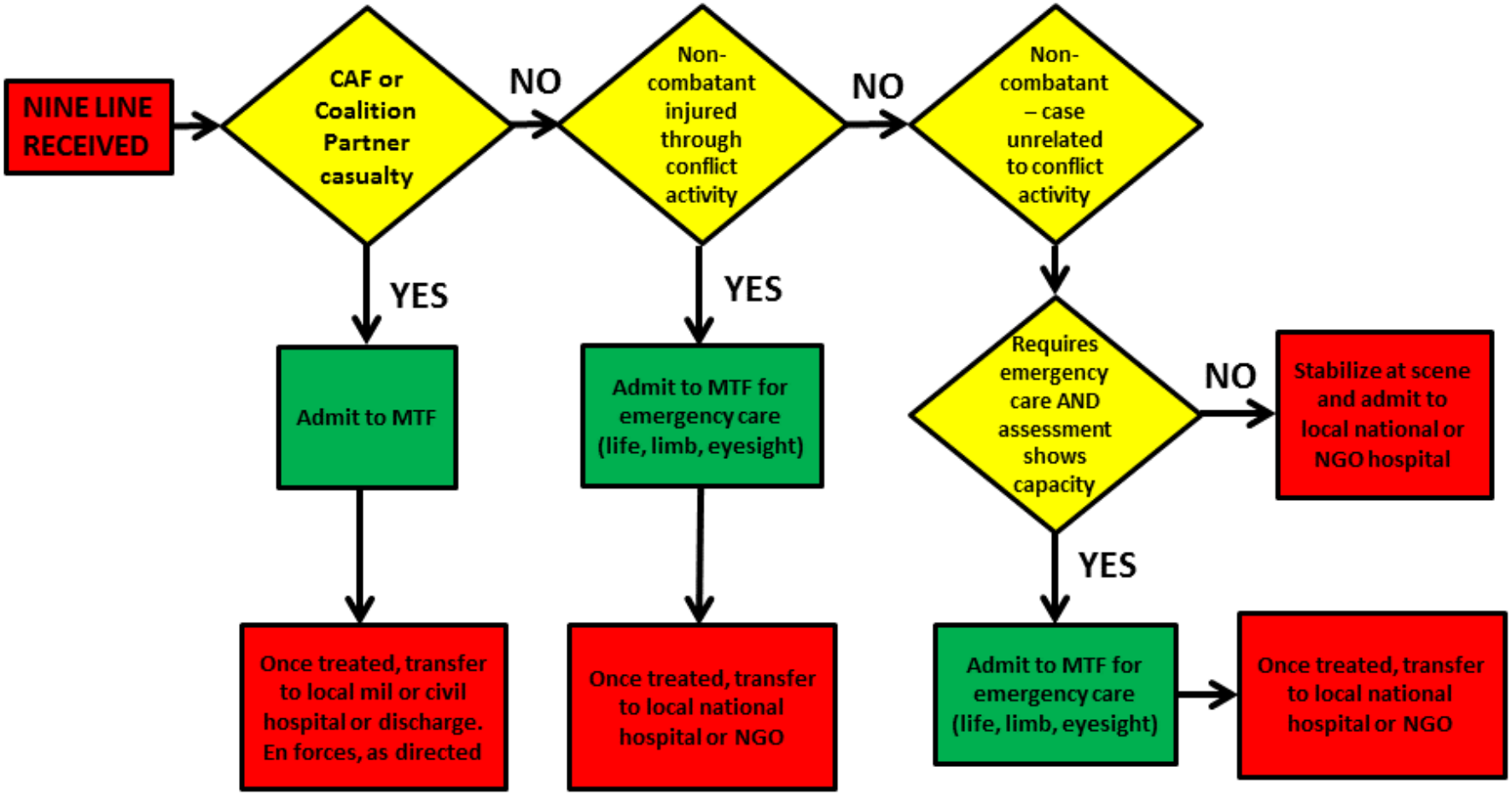
e. Points of contact. Position, name, phone, and e-mail of key staff/advisors at relevant supporting HQs. This list must include the Aeromedical Evacuation Coordination Officer.

Appendices (appendices are used to amplify details of a single topic within the HS annex, when required)

Medical Intelligence Report
Force Health Protection Recommendations
HS C2 Architecture and Communications Plan. Include location and capability of MTFs and MEDEVAC assets.
Medical Rules of Eligibility Matrix
HS Reports and Returns Formats
Medical Logistics Plan
List of binational and multinational agreements
Medical Component of Chemical, Biological, Radiological and Nuclear Plan
Mass Casualty Plan
MEDEVAC diagram
The HS information Handbook

This page was intentionally left blank

ANNEX C – SIMPLIFIED MEDICAL RULES OF ELIGIBILITY FLOWCHART



This page was intentionally left blank

ANNEX D – SAMPLE POPULATION AT RISK/DEPENDENCY MATRIX

1. At each lower level the matrix becomes more detailed. Columns may be added for Preventive Medicine, HS Logistics, etc.

Component	Element	PAR (Note 1)	Location	Supporting HS							Remarks
				Role 1	Role 2	Role 3	MEDEVAC Ground and Air				
							Forward		Tactical	Strategic	
							Ground	Air			
Maritime	HMCS X	240		Embarked		US Naval Air Station X				USAF to LRMC	
	HMCS Y	240		Embarked							
	FLS	5	Port A	Coalition		Host Nation					GBR Role 1
Land	Bde HQ	100		HSU	HSU	Coalition	HSU				
	BG 1	850		HSU	HSU	Coalition	HSU	US Div	Coalition	RCAF	
	BG 2	700		HSU	HSU	Coalition	HSU	US Div	Coalition	RCAF	
	Svc Bn	400		HSU	HSU	Coalition	HSU	US Div	Coalition	RCAF	
Air	F-18s	140	Airfield B	HSU		Coalition	Coalition				Flight Surgeon
	Hel Det	100		HSU	HSU	Coalition	HSU				Flight Surgeon
	LRP	120	Airfield C	Coalition		US Naval Air Station X				USAF to LRMC	Flight Surgeon from USA
National	JTFHQ	100	Camp X	HSU		Coalition				RCAF	DEU Role 3
	JTFSC	120	Camp Y	HSU		Coalition				RCAF	DEU Role 3
		50	Camp Z	Coalition						RCAF	
	HSU	200		HSU						RCAF	
	Contractors	400		HSU							
Coalition (Note 2)	CJTF HQ	10	Camp X	HSU		Coalition					DEU Role 3
	MCC HQ	5		Coalition							
	CAOC	10	ITA Airbase D	Coalition		Host Nation	Civilian				ITA Role 1 ITA Civilian hospital

Note 1. Must account for every CAF member in every location
Note 2. CAF member attached to Coalition HQs/units

This page was intentionally left blank

ANNEX E – LAW OF ARMED CONFLICT (LOAC)

Note: This annex has been reviewed by Directorate of International & Operational Law, Office of the Judge Advocate General, 12 May 2016.

General

1. This Annex provides guidance on HS specific aspects of LOAC. CFJP 3-0.1 is the authoritative Joint doctrine publication.

2. In keeping with the terminology used in the LOAC, the term "medical" includes dental.

Compliance with the LOAC.

3. The Canadian Armed Forces (CAF) must comply with Canadian and applicable international law, including international humanitarian law, during all operations. In addition, they may have to comply with the laws of the territory in which operations take place. The conduct of medical activities will comply with the rules and spirit laid down by the LOAC.[44] In circumstances where specific provisions of these conventions may not be directly applicable, the principles expressed in the LOAC nevertheless define the minimum acceptable standard. While not limited to the framework of established mission population at risk, medical personnel must bear in mind that all sick or wounded shall be treated without discrimination solely on the basis of clinical need and the availability of medical resources. At times 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 medical obligations with respect to LOAC.

4. All medical personnel should thoroughly understand the provisions of the LOAC that apply to medical activities. Violation of the LOAC can result in the loss of the protection afforded by them. Medical personnel must advise the operational commander of the consequences of violating the provisions of the LOAC. The consequences can include the following:

a. medical elements subjected to attack and destruction by the enemy, thereby degrading medical capability;

b. loss of non-combatant status meaning captured medical personnel would be liable to become prisoners of war rather than being returned to their armed forces or kept as retained persons when required to treat fellow prisoners; and

c. loss of protected status for medical units, personnel, or evacuation platforms (to include aircraft on the ground).

Protection of the Wounded and Sick

5. A soldier who has been incapacitated by wounds or sickness, and is therefore incapable of self defence (and abstains from any hostile act) is considered *hors de combat* and is from that moment protected. The protections accorded the wounded and sick apply to friend and foe alike without distinction.

[44] In this context, LOAC includes applicable treaty law, such as The Hague Conventions typically dealing with the actual conduct of military operations including the methods and means of combat, and the Geneva Conventions largely concerned with the protection of persons not involved in a conflict, applicable weapons conventions, and customary international 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.

6. **Protection and Care.** LOAC imposes several specific obligations regarding the protection and care of the wounded and sick:

a. the wounded or sick, shall be respected and protected, so long as they refrain from any act of hostility. Similarly an obligation exists to come to the aid of a wounded or sick soldier, when circumstances permit, and give them such care as their condition requires;

b. this obligation is applicable in all circumstances. The wounded and sick are to be respected just as much when they are with their own army or in no man's land as when they have been captured or detained;

c. the benefits afforded the wounded and sick extend not only to members of the armed forces. All wounded or sick persons are entitled to respect and humane treatment and the care which their condition requires. Wounded and sick civilians have the benefit of the safeguards of the LOAC;

d. the wounded and sick shall be treated humanely and cared for without any adverse distinction founded on sex, race, colour, language, national or social origin, religion or belief, political or other opinions, wealth, birth or other status, or any other similar criteria;

e. the wounded and sick shall not be made the subjects of biological, scientific, or medical experiments of any kind which are neither justified by the medical, dental or hospital treatment of the person concerned nor carried out in his or her interest; and

f. the wounded and sick shall not willfully be left without medical assistance, nor shall conditions exposing them to contagion or infection be created.

7. **Abandonment of Patients**. The LOAC provides that if we must abandon wounded or sick, we have an obligation to, as far as military considerations permit, leave medical supplies and personnel to assist in their care.

8. The decision to abandon patients to the enemy is a command responsibility. It is the duty of the senior medical person present to provide the commander with the medical information necessary to arrive at a proper decision.

9. **Search for and Collection of Casualties.** The LOAC imposes a duty on combatants to search for and collect the dead, wounded and sick as soon as circumstances permit. It is left to the operational commander to judge what is possible and to decide whether or not to commit medical personnel to this effort. If circumstances permit, an armistice or suspension of fire should be arranged to permit this effort.

10. **Assistance of the Civilian Population**. The LOAC allows a belligerent to ask the civilians to collect and care for wounded or sick of whatever nationality. This provision does not relieve the military authorities of their responsibility to give both physical and moral care to the wounded and sick.

Prisoners of War (PW) and Detainees

11. During Canadian military operations, the CAF may be authorized to detain people; those detained are called "detainees". Although the PW provisions apply only 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.

Therefore all detainees will be provided the same standard of medical treatment and care afforded PWs.

12. Health care to any PW or person detained by CAF must be consistent with medical/dental ethics, applicable law (domestic, international, and potentially including host nation law), and also international agreements/arrangements. International humanitarian law requires that PWs or detainees be provided with 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.

13. PWs and detainees of the CAF shall be treated humanely in all circumstances. Their medical 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 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. medical inspections of PWs and detainees are to be carried out at least once a month;

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

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

i. medical examinations are conducted to determine the type of work in which PW may be employed; and

j. PWs are afforded safeguards to patient confidences and privacy, whether the information is entered in electronic format, written down, or verbally presented.

14. **Guards**. Wounded or sick PWs are evacuated through medical channels: however, medical units are not responsible for the provision of guards during evacuation or within medical establishments. Guards will be provided in accordance with formation PW policy/direction.

15. **Planning for Detention Facilities**. 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 medical treatment facility holding capacities may be required. CAF may also wish to cooperate to provide centralized treatment facilities for PWs and detainees, although Canada may retain some legal responsibility for the treatment of any person transferred to the custody of another nation.

16. Medical staff need to be involved in the planning and operation of detention facilities, particularly when the persons held in them may pose a risk to those guarding them from poor hygiene practices or endemic disease. The medical authorities will need to develop a preventive

medicine strategy, ensure the provision of primary health care services within the facility and ensure that the guarding force has adequate medical support.

17. Additional guidance can be found in ABCANZ Publication 365 *Health Support to Detainee Operations*.

18. During armed conflict, captured enemy medical facilities, medical materiel and retained enemy medical 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 captured enemy medical personnel have a particular expertise of endemic disease not normally seen in the CAF. See paragraphs 37-41.

19. **Medical Repatriation**. The Geneva Conventions provide for the repatriation of:

a. retained medical personnel once they are no longer needed to provide health care to members of their own forces; and

b. seriously wounded and sick PW.

20. Parties to the conflict are bound to send back to their own country, regardless of number or rank, seriously wounded and seriously sick PWs, after having cared for them until they are fit to travel. No sick or injured PW may be repatriated against his will during hostilities.

21. The following shall be directly repatriated:

a. incurably wounded and sick whose mental or physical fitness seems to have been gravely diminished;

b. wounded and sick who, according to medical opinion, are not likely to recover within one year, whose condition requires treatment, and whose mental or physical fitness seems to have been gravely diminished; and

c. wounded and sick who have recovered, but whose mental or physical fitness seems to have been gravely and permanently diminished.

22. The following may be accommodated in a neutral country:

a. wounded and sick whose recovery may be expected within one year of the date of the wound or the beginning of the illness, if treatment in a neutral country might increase prospects of a more certain and speedy recovery; and

b. PWs whose behavioral or physical health, according to medical opinion, is seriously threatened by continued captivity, but whose accommodation in a neutral country might remove such a threat.

23. In general, PWs who have been accommodated in a neutral country, and who belong to the following categories, should be repatriated:

a. those whose state of health has deteriorated so as to fulfill the conditions laid down for direct repatriation; and

b. those whose mental or physical powers remain, even after treatment, considerably impaired.

Enemy Civilian Wounded and Sick

24. Enemy civilians who are wounded and sick, as well as the infirm, and expectant mothers, shall be the object of particular protection and respect. The "protection and respect" to which wounded and sick enemy civilians are entitled is the same as that accorded to wounded and sick enemy military personnel.

25. Saving civilians is the responsibility of the civilian authorities rather than of the military. The military is not required to provide injured civilians with medical care in a combat zone. However, if we start providing treatment, we are bound by the provisions of the LOAC.

26. In occupied territories, the Occupying Power must accord the inhabitants numerous protections as required by the Geneva Conventions. The provisions relevant to medical care include the:

a. requirement to bring in medical supplies for the population if the resources of the occupied territory are inadequate;

b. prohibition on requisitioning medical supplies unless the requirements of the civilian population have been taken into account;

c. duty of ensuring and maintaining, with the cooperation of national and local authorities, the medical and hospital establishments and services, public health, and hygiene in the occupied territory;

d. requirement that medical personnel of all categories be allowed to carry out their duties;

e. prohibition on requisitioning civilian hospitals on other than a temporary basis and then only in cases of urgent necessity for the care of military wounded and sick and after suitable arrangements have been made for the civilian patients;

f. requirement to provide adequate medical treatment to detained persons; and

g. requirement to provide adequate medical care in internment camps.

Protection and Identification of Medical Personnel

27. **Protection from Attack.** Personnel of the armed forces permanently assigned to medical activities, to the administration of medical units and to medical transport ("medical duties") are non-combatants. They may not be attacked. If captured, permanent medical personnel will be returned to their own armed forces unless they are retained by the detaining power to assist PWs. Medical personnel are entitled to "retained person" status. They are not deemed to be PWs, but otherwise benefit from the protections of the LOAC.

28. Personnel of the armed forces temporarily assigned to medical duties during a limited period of time, such as stretcher-bearers, are non-combatants when engaged in such duties. They may not be attacked while engaged in medical duties. If captured, temporary medical personnel become PWs.

29. **Identification Cards and Armbands**.[45] Medical personnel are authorized to wear on their left arm a water-resistant armlet bearing the distinctive emblem (usually the Red Cross), issued and stamped by the CAF. The displaying of the distinctive emblem is at the direction of

[45] CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels*, article 915.

the operational commander. They are also authorized to carry an official identity card, the NDI 60 – Geneva Convention Identification Card.

Identification of Medical Units, Establishments, Materiel, and Medical Transports

30. The LOAC contains several provisions regarding the use of the Red Cross emblem on medical units, establishments, and transports. Some countries use the Red Crescent or Red Crystal on a white background in place of the Red Cross. Medical units and transports may be clearly marked with the distinctive emblem.

31. There is no obligation of a belligerent to mark their units with the emblem. Sometimes a commander (generally no lower than a brigade commander) may order the camouflage of medical units in order to conceal the presence or real strength of their forces. The enemy must respect a medical unit if they know of its presence, even one that is camouflaged or not marked. The absence of a visible Red Cross emblem, however, coupled with a lack of knowledge on the part of the enemy as to the unit's protected status, may render that unit's protection valueless.

32. The distinctive emblem is not a Red Cross alone; it is a Red Cross on a white background. Should there be some good reason, however, why an object protected by the Convention can only be marked with a Red Cross without a white background, belligerents may not make the fact that it is so marked a pretext for refusing to respect it.

33. The Red Cross flag shall be hoisted only over such medical units and establishments as are entitled to be respected under the Convention, and only with the consent of the military authorities. The word "flag" must be taken in its broadest sense. Hospitals are often marked by one or several Red Cross emblems painted on the roof. Finally, the military authority must consent to the use of the flag and must ensure that the flag is used only on buildings entitled to protection.

34. It is the military commander who controls the emblem and can give or withhold permission to use it. The commander is at all times responsible for the use made of the emblem and must see that it is not improperly used by the troops or by individuals.

35. The Red Cross flag may be accompanied by the national flag; however, in some cases the national flag is a symbol of belligerence and is therefore likely to provoke attack.

36. In a NATO conflict, STANAG 2931[46] provides for camouflage of the Geneva emblem on medical facilities where the lack of camouflage might compromise operational operations. Medical facilities on land, supporting forces of other nations, will display or camouflage the Geneva emblem in accordance with national regulations and procedures. When failure to camouflage would endanger or compromise operations, the camouflage of medical facilities may be ordered by a NATO commander of at least brigade level or equivalent. Such an order is to be temporary and local in nature and rescinded as soon as the circumstances permit. It is not envisaged that fixed, large, medical facilities would be camouflaged. The STANAG defines "medical facilities" as "medical units, medical vehicles, and medical aircraft on the ground."

37. **Note.** There is no such thing as a "camouflaged" Red Cross. When camouflaging a medical unit either cover up the Red Cross or take it down. A black cross on an olive drab or any other background is not a symbol recognized under the Geneva Conventions.

[46] STANAG 2931, ATP-79 *Orders for the Camouflage of Protective Medical Emblems on Land Tactical Operations*

Protection and Identification of Medical Units, Establishments, Materiel, and Medical Transports

38. **Protection from Intentional Attack.** The LOAC provides protection from intentional attack if medical units, establishments, or transports are identifiable as such by an enemy in a combat environment. Normally, this is facilitated by medical units or establishments flying a white flag with a Red Cross and by marking buildings and transport vehicles (aircraft or ground) with the distinctive emblem:

a. **Vehicles.** All vehicles employed exclusively on medical transport duty are protected. Medical vehicles being used for both military and medical purposes, such as moving wounded personnel during an evacuation and carrying retreating belligerents, are not entitled to protection;

b. **Aircraft.** Medical aircraft are protected from intentional attack only while flying at heights, times and on routes specifically agreed upon between the belligerents concerned. Such agreements may be made for each specific case or may be of a general nature, concluded for the duration of hostilities. If there is no agreement, belligerents use medical aircraft at their own risk and peril; and

c. **Establishments.** There is an obligation to ensure that medical establishments and units are, as far as possible, situated in such a manner that attacks against military objectives cannot imperil their safety. Hospitals should be sited alone, as far as possible from military objectives. Practical consideration will not always make this possible. The unintentional bombardment of a medical establishment or unit due to its presence among or in proximity to valid military objectives is not a violation of the LOAC.

Protection when Falling into the Hands of the Enemy

39. The following paragraphs apply in cases where CAF captures enemy medical elements, or CAF medical elements have been captured by the enemy.

40. Captured mobile medical unit materiel shall be reserved for the care of wounded and sick.

41. Generally, the buildings, materiel, and stores of fixed medical establishments will continue to be used to treat wounded and sick. However, after provision is made to care for remaining patients, operational commanders may make other use of them. All distinctive markings must be removed if the buildings are to be used for other than medical purposes.

42. The materiel and stores of fixed establishments and mobile medical units are not to be intentionally destroyed, even to prevent them from falling into enemy hands. In certain extreme cases, buildings may have to be destroyed for operational reasons.

43. Medical transports that fall into enemy hands may be used for any purpose once arrangement has been made for the medical care of the wounded and sick they contain. The distinctive markings must be removed if they are to be used for nonmedical purposes.

Loss of Protection of Medical Establishments and Units

44. Medical assets lose their protected status by committing acts “harmful to the enemy.” A warning must be given to the offending unit and, whenever appropriate, a reasonable amount of time allowed to cease such activity.

45. **Acts Harmful to the Enemy**. The phrase "acts harmful to the enemy" is not defined in the Convention, but should be considered to include acts the purpose or effect of which is to harm the enemy, by facilitating or impeding military operations. Such harmful acts would not include that the personnel of the unit are equipped with light individual weapons for their own defence or for that of the wounded and sick in their charge; that the unit is guarded; that small arms and ammunition taken from the wounded and sick, and not yet handed to the proper service, are found in the units; and that members of the armed forces or other combatants are in the unit for medical reasons. Such harmful acts would include, for example, the use of a hospital as a shelter for able-bodied combatants, as an arms or ammunition dump, or as a military observation post. Another instance would be the deliberate sitting of a medical unit in a position where it would impede an enemy attack.

46. **Warning and Time Limit**. The enemy has to warn the unit to put an end to the harmful acts and must fix a time limit at the conclusion of which they may open fire or attack if the warning has not been complied with. There might be cases where no time limit could be allowed, e.g., a body of troops approaching a hospital and met by heavy fire from every window would return fire without delay.

47. **Use of Smoke and Obscurants**. The use of smoke and obscurants during medical evacuation operations for signaling or marking landing zones does not constitute an act harmful to the enemy. However, employing such devices to obfuscate a medical element's position or location is tantamount to camouflaging. It would jeopardize its entitlement privilege status under the LOAC.

Conditions not Depriving Medical Units and Establishments of Protection

48. **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 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. They may not employ arms against enemy forces acting in conformity with the LOAC and may not use force to prevent the capture of their unit by the enemy (it is, on the other hand, perfectly legitimate for a medical unit to withdraw in the face of the enemy). Medical personnel who use their arms in circumstances not justified by the LOAC expose themselves to penalties for violation of the LOAC. Provided they have been given due warning to cease such acts, they may also forfeit the protection of the medical unit or establishment which they are protecting.

49. Medical personnel may carry small arms, such as rifles, pistols, squad automatic weapons, or authorized substitutes in the defense of medical facilities, equipment, and personnel/patients without surrendering the protections afforded by the Geneva Conventions.

50. The presence of machine guns, grenade launchers, booby traps, hand grenades, light antitank weapons, or mines (regardless of the method by which they are detonated) in or around a medical unit or establishment may jeopardize its privileged status under the LOAC. The *deliberate arming* of a medical unit with such items could be viewed as an act harmful to the enemy and cause the medical unit to lose its protection, regardless of the location of the medical unit.

51. **Guarding Medical Units.** As a rule, a medical unit is to be guarded by its own personnel. However, it will not lose its protected status if the guard is performed by a number of armed soldiers. The military guard attached to a medical unit may use its weapons, just as armed medical personnel may, to ensure the protection of the unit. But, as in the case of medical personnel, the soldiers may only act in a purely defensive manner and may not oppose the occupation or control of the unit by an enemy who is respecting the unit's privileged status. The status of such soldiers is that of ordinary members of the armed forces. The mere fact of their presence with a medical unit will shelter them from attack. In case of capture, they will be POWs.

52. **Arms and Ammunition Taken from the Wounded.** Wounded persons arriving in a medical unit may still be in possession of small arms and ammunition, which will be taken from them and handed to authorities outside the medical unit.

53. **Care of Civilian Wounded and Sick.** A medical unit or establishment protected by the LOAC may take in civilians, as well as military wounded and sick, without jeopardizing its privileged status.

This page was intentionally left blank

ANNEX F – SAMPLE TACTICAL LEVEL MEDICAL PLAN GRAPHICAL OVERLAY

Initial HSS Plan OP MEDUSA, Phase 2a/2b/3 25 Aug 2006

Concept of HSS to OP MEDUSA.

Chain of MEDEVAC:

1. Point of wounding to unit Cas Collection Point (CCP) via litter/stretcher teams or Armd Ambulance.
2. From CCP to HLZ (H1 / H2 / H3) via Armd Ambulance.
3. From HLZ to KAF R3 via RW MEDEVAC.

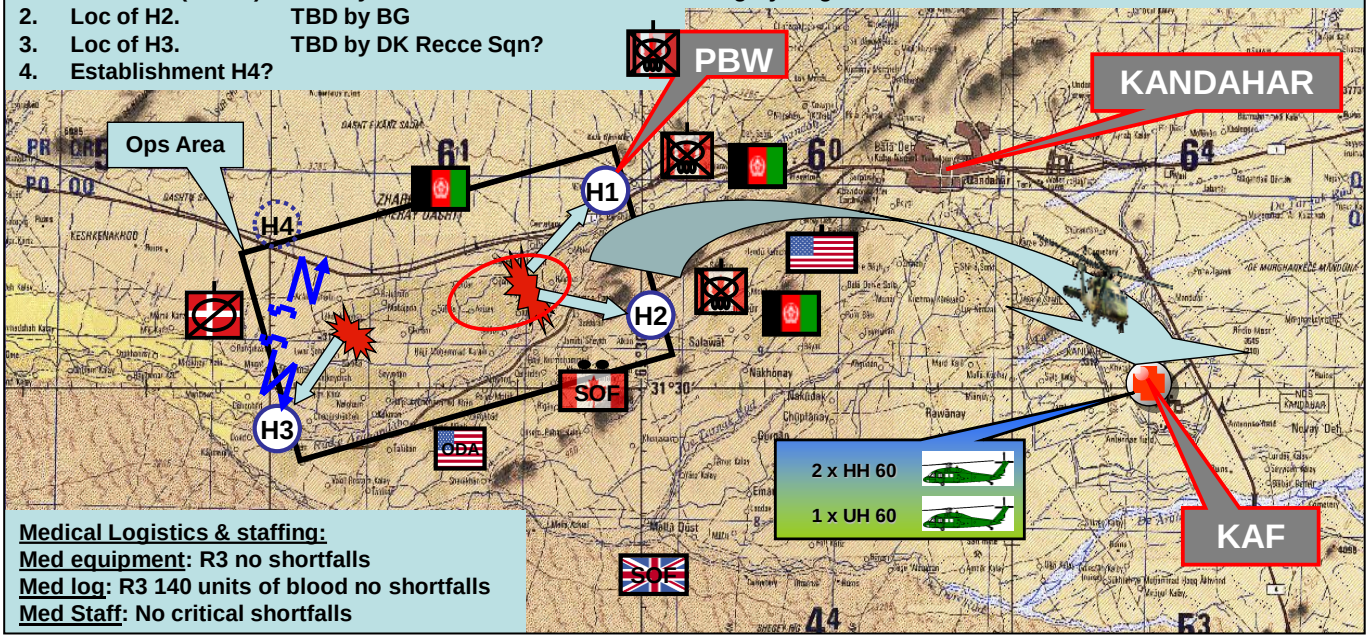
MEDEVAC time H1 or 2 to KAF 40 mins (H3 +5mins)
(15 mins W/U + 20 mins flight time round trip + 5mins transfer)

Critical coordination: HLZs are the lynch pins between the R1 and R2/3 medical care.

1. Loc of H1 (PBW?) TBD by BG
2. Loc of H2. TBD by BG
3. Loc of H3. TBD by DK Recce Sqn?
4. Establishment H4?

Medical Facilities & C2:

Role 1. Location: integral with units.
Tasking: trauma life support & ground medevac to HLZ
Role 3. Location: KAF.
Tasking: resuscitation, primary surgery, specialist diagnostic and clinical support, ICU & ICW care.
HQ JOC & PECC. Location KAF
Command & Control Avn & Patient flow.
Alternate Medical Treatment Facility (Alt MTF)
NLD Role 2E. Location: Tarin Kot.
Tasking: overflow if need be for R3, resus & primary surgery. Flight time HLZ – TK 35 mins.



Medical Logistics & staffing:

Med equipment: R3 no shortfalls
Med log: R3 140 units of blood no shortfalls
Med Staff: No critical shortfalls

This page was intentionally left blank

.

List of Abbreviations

1 CAD	1 Canadian Air Division
1 Cdn Fd Hosp	1 Canadian Field Hospital
ABCANZ	American, British, Canadian Australian, and New Zealand Armies Program
AE	Aeromedical Evacuation
AECO	Aeromedical Evacuation Coordination Officer
AJMedP	Allied Joint Medical Publication
AJP	Allied Joint Publication
AMedP	Allied Medical Publication
ASF	Aeromedical Staging Facility
ATF	Air Task Force
BC	Battle Casualty
C2	Command and Control
CAF	Canadian Armed Forces
CANSOFCOM	Canadian Special Operation Forces Command
CASORG	Casualty Organisation
CASSIM	Casualty Simulation
CBRN	Chemical, Biological, Radiological and Nuclear
CBRNE3T	Chemical, Biological, Radiological, Nuclear, Explosive, Environmental, Endemic, Traumatic
CCIR	Commander's Critical Information Requirements
CFFORT	Canadian Forces Forensic Odontology Response Team
CFHIS	Canadian Forces Health Information System
CF H Svcs Gp	Canadian Forces Health Services Group
CF H Svcs Gp HQ	Canadian Forces Health Services Group Headquarters
CFHSP	Canadian Forces Health Services Publication
CFJP	Canadian Forces Joint Publication
CIMIC	Civil-Military Cooperation
CIS	Communication and Information System
CJOC	Canadian Joint operations Command
CO	Commanding Officer
COA	Course of Action
CONOPS	Concept of Operations
CONPLAN	Contingency Plan
CPG	Commander's Planning Guidance
DCR	Damage Control Resuscitation
DCS	Damage Control Surgery
DFHP	Director Force Health Protection
DHSO	Director Health Services Operations
DISS	Disease and Injury Surveillance System
DNBI	Diseases and Non-Battle Injuries
DND	Department of National Defence
DS	Directing Staff
FHP	Force Health Protection

FLS	Forward Logistics Site
FRAGO	Fragmentary Order
GAC	Global Affairs Canada
GBA+	Gender Based Analysis +
HODR	Humanitarian Operations and Disaster Relief
HOM	Head of Mission
HQ	Headquarters
HS	Health Services
HSG	Health Services Group
HSU	Health Services Unit
IA	Initiating Authority
IO	International Organization
JHS	Joint Health Services
JOA	Joint Operations Area
JOPG	Joint Operational Planning Group
JSOR	Joint Statement of Requirement
JTF	Joint Task Force
JTFSC	Joint Task Force Support Component
LOAC	Law of Armed Conflict
MASCAL	Mass Casualty
MEDEVAC	Medical Evacuation
Med Int	Medical Intelligence (staff)
Medintel	Medical Intelligence (process/products)
MEDICS	Medical Information and Coordination System (NATO)
MEDINFO	Medical Information
MMU	Multinational Medical Unit
MND	Minister of National Defence
MRoE	Medical Rules of Eligibility
MTF	Medical Treatment Facility
NATO	North Atlantic Treaty Organisation
NEO	Non-Combatant Evacuation Operations
NGO	Non-Governmental Organisation
OLRT	Operational Liaison and Reconnaissance Team
OP O	Operation Order
OPG	Operational Planning Guidance
OPLAN	Operational Plan
OPP	Operations Planning Process
PAR	Population at Risk
PSO	Peace Support Operations
PW	Prisoner of War
QR&O	Queen’s Regulations & Orders
RCAF	Royal Canadian Air Force

RCN	Royal Canadian Navy
RFI	Request for Information
RJTF	Regional Joint Task Force
RSOM	Reception, Staging, and Onward Movement
SMA	Senior Medical Authority
SME	Subject Matter Expert
SOF	Special Operations Forces
STANAG	Standardisation Agreement (NATO)
SUPLAN	Supporting plan
TO&E	Table of Organization and Equipment
TRAC2ES	TRANSCOM Regulating and Command & Control Evacuation System (US Transportation Command)
US	United States

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 parentheses at the end of each definition, utilizing the following abbreviations:

- DTB: *Defence Terminology Bank*.
- NATO*Term*: NATO Glossary of Medical Terms and Definitions (available on the NATO Standardization Organization private website)

aeromedical evacuation (AE)

The movement of casualties under medical supervision to and between medical treatment facilities by air transportation. (DTB, record 3308) Also see Forward, Tactical and Strategic AE.

aeromedical evacuation, forward

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.
Note: this is usually conducted by rotary wing assets in forward areas. (DTB, record 4324)

aeromedical evacuation, strategic

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 evacuation, tactical

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 5486)

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)

battle casualty (BC)

Any casualty incurred as the direct result of hostile action, sustained in combat or relating thereto or sustained going to or returning from a combat mission. Included in this category, in relation to personnel, are Killed-in-Action (KIA), Missing-in-Action (MIA), Captured-in-Action (CIA), Wounded-in-Action (WIA), Died of Wounds (DOW), Combat Stress Reaction (CSR), Chemical, Biological, Radiological and Nuclear (CBRN) Casualties. (DTB, record 3630)

casualty

1. 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)

2. 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)

3. 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)

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 rate

1. 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)

2. In relation to the personnel and materiel engaged, percentage knocked out of action or out of service. (DTB, record 15697)

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)

Civil-Military Co-operation (CIMIC)

The coordination and cooperation, in support of a mission, between the military and civil actors.
Note: This includes the national population and local authorities, as well as international, national, governmental and non-governmental organizations and agencies. (DTB, record 336)

coalition

An ad hoc agreement between two or more nations for a common action. (DTB, record 21755)

concept of operations

A clear and concise statement of the line of action chosen by a commander in order to accomplish his given mission. (DTB, record 3862)

course of action (COA)

In the estimate process, an option that will accomplish or contribute to the accomplishment of a mission or task, and from which a detailed plan is developed. (DTB, record 20891)

disease and non-battle injury (DNBI)

An illness or injury to a CF member that occurred in a special duty area and that is not directly attributable to combat. **(**DTB, record 28762)

evacuation

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

force health protection (FHP)

1. The protection of Canadian Forces members, either in garrison or on deployment, from preventable illnesses and injuries.
Note: Force health protection includes the promotion of a healthy lifestyle. (DTB, record 27413)

2. 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. (NATO*Term*, record 26015)

health services (HS)

Medical or dental services intended directly or indirectly to contribute 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)

humanitarian assistance

As part of an operation, the use of available military resources to assist or complement the efforts of responsible civil actors in the operational area or specialized civil humanitarian organizations in fulfilling their primary responsibility to alleviate human suffering. (DTB, record 26977)

international organization

An intergovernmental, regional or global organization governed by international law and established by a group of states, with international juridical personality given by international agreement, however characterized, creating enforceable rights and obligations for the purpose of fulfilling a given function and pursuing common aims.
Note: Exceptionally, the International Committee of the Red Cross, although a non-governmental organization formed under the Swiss Civil Code, is mandated by the international community of states and is founded on international law, specifically the Geneva Conventions, has an international legal personality or status on its own, and enjoys some immunities and privileges for the fulfilment of its humanitarian mandate. (DTB, record 30975)

lead nation (LN)

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 LN 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)

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 information (MEDINFO)

Any information on medical or environmental threats or medical care facilities or capabilities which has been gathered through non-intelligence channels and which has not been analysed for intelligence content. Such information is an essential component of operational medical planning and should be shared freely among members of the Alliance. (AMedP-3.2)

medical intelligence (Medintel)

1. 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.

2. Intelligence concerning health services support facilities and capabilities, the impact of disease and environmental hazards on military forces, epidemiological and other health-related information. (DTB, record 31949)

Note: The abbreviation MEDINT has been used previously, but is deprecated to avoid confusion with specific intelligence collection sources/activities such as HUMINT, SIGINT, etc, and the term “Med Int” that refers to the staff that provides medical intelligence. Medintel is an all-source activity and draws from all relevant sources to generate assessments. The DTB will be updated.

medical regulating

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

2. The process of directing, controlling and coordinating the transfer of patients, from point of wounding or onset of disease through successive MTFs, in order to facilitate the most effective use of medical treatment and evacuation resources and to ensure that the patient receives appropriate care in a timely manner.

medical treatment facility (MTF)

A facility established for the purpose of furnishing medical and/or dental care. (DTB, record 47830)

multinational medical unit (MMU)

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

multinational operation

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

non-governmental organization (NGO)

An organization that is not part of a national, regional or local government and includes civilian charities, advocacy organizations and humanitarian relief organizations. (DTB, record 36608)

operational level

The level at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations. (DTB, record 33093)

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 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.
Explanation: 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)

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 all aspects of health support, less dental support. This individual is also the person responsible for provision of medical advice to the supported commander(s). At the highest CF level of command the SMA is the CF Surgeon General. For each of the three CAF Environments, the SMA is the Environmental Surgeon. For a Formation-based Command, it is the Formation Surgeon. At Base level it is the Base Surgeon. For a deployed Joint Task Force it is the Joint Task Force Surgeon.

technical control

The control applied largely to administrative or technical procedures and exercised by virtue of professional or technical jurisdiction. It parallels command channels but is restricted to control within certain specialized areas such as legal, medical or communications. Operational commanders may override this type of control any time its application is seen to jeopardise the mission or the military force. (B-GJ-005-300/FP-000)

theatre patient return policy - formerly theatre patient holding policy

A command decision for planning purposes that indicates the maximum number of days that a patient will be allowed to remain in the theatre of operations for treatment, recovery and return to duty. (NATO*Term*, record 25640)

triage

The evaluation and classification of wounded for purposes of treatment and evacuation. It consists of the immediate sorting of patients according to type and seriousness of injury, and likelihood of survival, and the establishment of priority for treatment and evacuation to assure medical care of the greatest benefit to the largest number. (DTB, record 5387)

This page was intentionally left blank

REFERENCES

Canadian Armed Forces

A. QR&O 34 *Medical Services*
B. QR&O 35 *Dental Services*
C. CDS Directive for *Integrating UNSCR 1325 and Related Resolutions into CAF Planning and Operations*
D. CDS Directive for the *Implementation of the Safe Schools Declaration*
E. CFJP 3-0 *Operations* (Sep 2011)
F. CFJP 3-0.1 *Law of Armed Conflict at the Operational and Tactical Levels* (Aug 01)
G. CFJP 3-2 *Domestic Operations* (Nov 2011)
H. CFJP 3-3 *Peace Support Operations* (Nov 2002)
I. CFJP 3-4.1 *Humanitarian Operations and Disaster Relief Operations* (May 2005)
J. CFJP 3-5 *Non-Combatant Evacuation Operations* (Oct 2003)
K. CFJP 3-8 *Chemical, Biological, Radiological, and Nuclear Defence* (Nov 2012)
L. CFJP 3-8.1 *Chemical, Biological, Radiological, and Nuclear Defence – Operations* (Feb 2013)
M. CFJP 3-14 *Prisoners of War Handling, Detainees and Interrogation & Tactical Questioning* (Aug 2004)
N. CFJP 4-0 *Support* (Jan 2016)
O. CFJP 4-1 *Joint Movement Support* (Sep 2002)
P. CFJP 4-10 *Health Services*
Q. CFJP 5-0 *The Canadian Forces Operational Planning Process* (Change 2, Apr 2008)
R. CFJP 5-2 *Risk Management for CF Operations*
S. CFJP 9 *Civil-Military Cooperation in Peace, Emergencies, Crisis, and War*
T. Joint Doctrine Note 2017-01 *Child Soldiers*
U. CFHSP 9 *Health Services in Land Operations* (under development)
V. A-MD-175-003/AG-001 *Medical Materiel Management*
W. B-GL-300-003/FP-001 *Command in Land Operations*
X. B-GA-406-000/FP-000 *Canadian Forces Aerospace Sustain Doctrine* (Feb 2011)
Y. B-MD-005-000/FP-001 *Aeromedical Evacuation Manual*
Z. B-GL-300-001/FP-001 *Land Operations*
AA. B-GL-322-010/FP-001 *Stability Activities And Tasks*
AB. B-GL-324-002/FP-001 *Airborne Operations – Airmobile*
AC. B-GL-335-001/FP-001 *Decision Making and Planning at the Tactical Level*
AD. B-GL-324-002/FP-001 *Airborne Operations – Airmobile*
AE. B-GL-324-004/FP-001 *Airborne Operations – Parachute*
AF. B-GL-323-004/FP-003 *Counter-Insurgency Operations*
AG. B-GL-355-001/FP-001 *Civil-Military Cooperation Tactics, Techniques and Procedures*
AH. RCAF *Flight Operations Manual*
AI. CJOC *Standing Operation Order for Domestic Operations*
AJ. CF H Svcs Gp Advisory 6643-44 *Health Protection Recommendations for Deployment to Canada's North*
AK. CF H Svcs Gp Instruction 6020-04 *Guidelines on Humanitarian Activities for the CF H Svcs Gp*
AL. CF H Svcs Gp Order 6000-14 *Operational Readiness (OPRED) Declaration for Deployment*
AM. CF H Svcs Gp Order 3100-22 *Maintenance of Clinical Readiness Program*
AN. CF H Svcs Gp Order 1023-08 *Forensic Odontology*
AO. CF H Svcs Advisory 4400-02 *Certain Public Health Aspects of CF H Svcs Pandemic Influenza Preparation and Response*

UNITED NATIONS

AP. *Medical Support Manual for United Nations Field Operations*, 3rd Edition

NATO

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

AQ. AJP-4.10 *Allied Joint Medical Doctrine for Medical Support* (STANAG 2228)
AR. AJMedP-1 *Allied Joint Medical Planning Doctrine* (STANAG 2542)
AS. AJMedP-2 *Allied Joint Doctrine for Medical Evacuation* (STANAG 2546)
AT. AJMedP-3 *Allied Joint Doctrine for Medical Intelligence* (STANAG 2547)
AU. AJMedP-4 *Allied Joint Medical Force Health Protection Doctrine* (STANAG 2561)
AV. AJMedP-5 *Allied Joint Doctrine for Medical Communications and Information Systems (MedCIS)* (STANAG 2562)
AW. AJMedP-6 *Allied Joint Civil-Military Medical Interface Doctrine* (STANAG 2563)
AX. AJMedP-7 *Allied Joint Doctrine for Support to Chemical, Biological, Radiological and Nuclear (CBRN) Defensive Operations* (STANAG 2596)
AY. AJMedP-8 *Allied Joint Medical Doctrine for Military Health Care* (STANAG 2598)
AZ. AJMedP-9 *Multinational Health Service* (STANAG 6505) (DRAFT)
BA. AMedP-1.6 *Medical Evaluation Manual* (STANAG 2560)
BB. AMedP-3.2 *Medical Information Collection and Reporting* (STANAG 2481)
BC. AMedP-6.1 *The Civil-Military Planning Process on Oral Health Care and Deployment of Dental Capabilities in all Operations with a Humanitarian Component* (STANAG 2584)
BD. AMedP-7.1 *The Medical Management of CBRN Casualties* (STANAG 2461)
BE. AMedP-7.5 *NATO Planning Guide for the Estimation of CBRN Casualties* (STANAG 2553)
BF. AMedP-7.6 *Commander's Guide on Medical Support to Chemical, Biological, Radiological and Nuclear (CBRN) Defensive Operations (*STANAG 2873)
BG. AMedP-9.1 *Modular Approach for Multinational Medical Treatment Facilities* (STANAG 6506) (DRAFT)
BH. AMedP-9.2 *Guidelines for a Multinational Medical Unit* (STANAG 2552) Note. This was formerly AMedP-1.3
BI. AMedP-1.10 *Medical Aspects in the Management of a Major Incident/Mass Casualty Situation* (STANAG 2879)
BJ. NATO Medical Information and Knowledge Management Portal (lessons learned)

ABCANZ

Available on the ABCANZ website (requires login)

BK. Standard 2108 *ABCANZ Medical Professional Credentialing/Privileging*
BL. Standard 2109 *Multinational Medical Unit Collective Training and Validation Standard*
BM. Publication 355 Ed 2 *Multinational Medical Unit Memorandum of Understanding (MOU) Template*
BN. Publication 256 Ed 3 *Coalition Health Interoperability Handbook*
BO. Publication 365 *Health Support to Detainee Operations*
BP. Report 207 *Health Coordination Center – ABCANZ 2 Star Headquarters*