
Health Service Support Field Reference Guide



US Marine Corps

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FOREWORD

Marine Corps Reference Publication (MCRP) 4-11.1E, *Health Service Support Field Reference Guide*, expands on the doctrine established in Marine Corps Warfighting Publication 4-11.1, *Health Service Support Operations*. This publication provides information on the concept of employment of health service support (HSS) units (medical and dental elements) in an operational environment and provides specific tactics, techniques, and procedures for medical personnel who are supporting Marine Corps operating forces. MCRP 4-11.1E provides commanders of medical units, commanders of units with organic medical and dental elements and their staffs, and United States Navy medical augmentation personnel with information that allows them to better understand the Marine Corps HSS system. This publication has been prepared as an instructional and doctrinal guide for medical and dental personnel, with and without previous Marine Corps operating forces experience.

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS



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To Our Readers

CHAPTER 1

FUNDAMENTALS

The mission of health service support (HSS) is to minimize the effects that wounds, injuries, and disease have on unit effectiveness, readiness, and morale. The HSS system's goal is to provide the best possible HSS to the sick and injured in both peacetime and war. The HSS system endeavors to maintain the health of the force through the promotion of wellness and the prevention of disease and illness. It also strives to minimize morbidity and mortality in those who are injured and cannot be returned to duty.

FUNCTIONS

The six functions of HSS, shown in figure 1-1, on page 1-2, are casualty management, force health protection (FHP) and prevention, medical logistics (MEDLOG), casualty evacuation (CASEVAC) and patient movement, medical command and control (C2), and medical stability operations. When planning a mission, all functions of HSS should be considered when developing the HSS concept of operations (CONOPS) to ensure the plan is comprehensive and complete.

Casualty Management

Casualty management begins from the point of injury or onset of illness throughout triage, treatment, and transport to the next role of medical care outside of United States Marine Corps (USMC) capabilities.

Force Health Protection and Prevention

Force health protection and prevention measures promote, improve, or conserve the behavioral and physical well-being of Service members to enable a healthy and fit force, prevent injury and illness, and protect the force from health hazards.

Medical Logistics

Medical logistics provides capabilities required to organize and provide the life cycle management of specialized medical products and services required to support Health Readiness requirements across the range of military operations.

Casualty Evacuation and Patient Movement

Casualty evacuation and patient movement consist of movement and ongoing treatment of the sick, wounded, or injured while in transit throughout the roles of care. All Marine Corps units have an evacuation capability by ground, air, or sea.

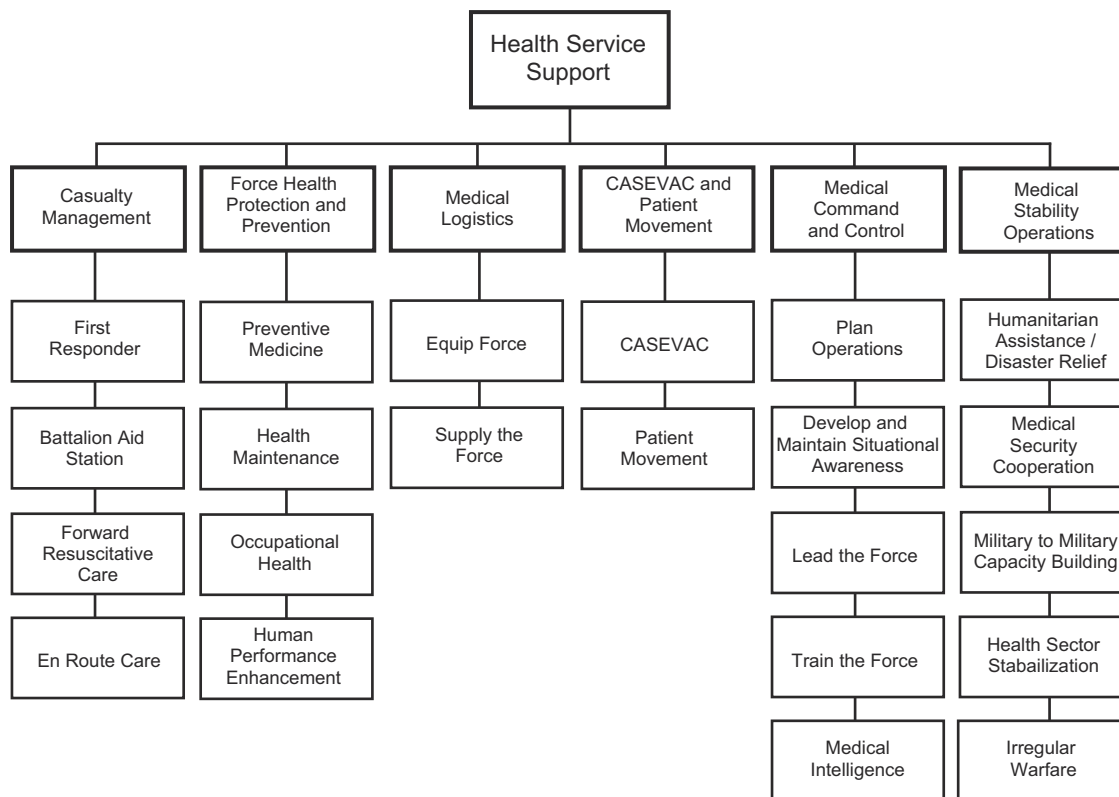


Figure 1-1. Health Service Support Functions.

Medical Command and Control

Medical C2 capability integrates both vertically and horizontally with the tactical commander's C2 functions and enhances situational awareness providing reliable medical support in current and future operations.

Medical Stability Operations

Medical stability operations is a core mission of the United States Navy (USN) and the USMC throughout all phases of conflict and across the range of military operations including combat and noncombat environments.

COMMAND RESPONSIBILITIES

Commanders are ultimately responsible for the health and medical readiness of their commands. Each commander is provided HSS through organic medical elements or medical elements of a designated supporting structure. If additional medical support is required for a particular operation, the command must identify its requirements early in the planning process, identify the required units, and request support through the operational chain of command.

Medical support planning should follow the tactical planning guidance and policies of the commander and be fully integrated in the Marine Corps Planning Process (MCP). (See Marine

Corps Warfighting Publication [MCWP] 5-1, *Marine Corps Planning Process*). The commander's staff develops requirements for support with input from the medical sections. The medical support requirements are incorporated in Annex Q (Medical Services) and Appendix 9 (Health Services) to Annex D (Logistics/Combat Service Support) of the operation plan (OPLAN) and operation order (OPORD). The commander's staff and medical unit commanders must communicate and be involved in all stages of planning.

Commanders must also provide HSS units with the requisite communications. Communications capabilities must, at a minimum, provide for—

- Command and control functions.
- Patient evacuation net control/interface.
- Communications with detached medical elements and units.
- Data transfer.

HEALTH SERVICE SUPPORT PRINCIPLES

The principles of HSS are guides for planning, organizing, managing, and executing operations. These principles are conformity, proximity, flexibility, mobility, continuity, and control. The success of HSS depends on the skillful application of these principles; however, these principles are not rigid rules that are applicable in every situation. Seldom will all of the principles exert equal influence in a given situation. Identifying those that have priority in a specific situation is essential to establishing effective HSS. The logistics combat element (LCE) commander applies these principles when structuring and organizing the LCE to address the functions of HSS.

Details of HSS as a function of tactical-level logistics are described in MCWP 4-11, *Tactical-Level Logistics*, and MCWP 4-11.1, *Health Service Support Operations*.

Conformity

Conformity with the tactical plan is the most basic element for effectively providing health support. Medical planners must be involved early in the planning process. Once the plan is established, it must be rehearsed with the forces it supports.

Proximity

The principle of proximity is to provide health support to sick, injured, and wounded military personnel at the right time, and to keep morbidity and mortality to minimum roles of care.

Flexibility

Flexibility is being prepared and empowered to shift medical resources to meet changing requirements. The medical commander must build flexibility into the OPLAN in order to support the combatant commander's scheme of maneuver. Since a change in tactical plans or operations may require redistribution of HSS resources to meet the new requirement, no more medical resources should be committed than are required to support the expected casualty estimates. When

the casualty load exceeds the means available for treatment (e.g., mass casualty situation), it may be necessary to give priority to those casualties who can be returned to duty sooner, rather than those who are more seriously injured.

Mobility

The principle of mobility is to ensure that medical assets remain within supporting distance of maneuvering forces.

Continuity

Continuity of care and treatment is achieved by moving the patient through progressive, phased roles of care, extending from the point of injury or wounding to the US support base. Each type of medical unit contributes a measured, logical increment of care appropriate to its location and capabilities.

Control

Control is required to ensure that scarce medical resources are efficiently employed and support the tactical and strategic plan. Control also ensures that the scope and quality of medical treatment meet professional standards, policies, and US and international law.

ROLES OF CARE

Medical support within an area of operations (AO) is organized into roles of care that extend from forward to the rear of the area of responsibility. Each role of medical capability is designed to provide the mobility and capability that is required to meet basic health care needs of the supported operational units, phased treatment, casualty holding, and preparation for the evacuation of the sick, wounded, or injured.

Marine Corps operating forces HSS is designed to allow flexibility demanded by mission, enemy forces, terrain, and other tactical situations. However, each role of care provides treatment capabilities in support of the capabilities of medical support below it. Each capability of the HSS system is limited by four interacting factors:

- Urgency of the patients' needs.
- Unit mobility.
- Capabilities of HSS personnel, equipment, and supplies.
- Workload of each HSS unit relative to its treatment capacity.

Point of Principal Treatment

The HSS system provides a continuum of care that begins at the point of injury and ends at the appropriate treatment facility. Casualties are evacuated through the HSS system until they arrive at a facility with the capability, time, and bed capacity to begin definitive intervention to return them to duty or prepare them for further evacuation. This is known as the point of principal treatment. The site of the principal treatment is determined simultaneously by the patient's diagnosis, HSS unit's capabilities, and workload.

Role 1 Care

Role 1 care is the first medical attention that military personnel receive and is also referred to as unit-level medical care. This role of care includes immediate lifesaving measures, disease and nonbattle injury (DNBI) prevention and care, combat and operational stress preventive measures, and patient location and acquisition (collection).

First Responder Self/Buddy Aid. The first responder provides unit level HSS. This is comprised of personnel from a unit and its organic battalion aid stations (BASs) or squadron aid stations. In the case of organizations without organic medical elements, unit level care is provided by medical elements at the regimental, group, or support squadron level or other designated medical elements. Tactical combat casualty care (TCCC) has three phases and occurs during a combat mission; it is the military counterpart to prehospital emergency medical treatment.

Prehospital TCCC in the military is most commonly provided by enlisted personnel and includes first responder, self-aid, buddy aid (first aid), unit corpsmen, independent duty corpsmen, combat lifesaver (CLS), or treatment by other medical personnel. Tactical combat casualty care focuses on the most likely threats, injuries, and conditions encountered in combat and on a strictly limited range of interventions directed at the most serious of these threats and conditions. The three phases of TCCC are care under fire phase, tactical field care phase, and tactical evacuation phase:

- In the care under fire phase, combat medical personnel and their units are under effective hostile fire and are very limited in the care they can provide. In essence, only those lifesaving interventions that must be performed immediately are undertaken during this phase.
- During the tactical field care phase, medical personnel and their casualties are no longer under effective hostile fire and medical personnel can provide more extensive care. Interventions that are directed at other life-threatening conditions, as well as resuscitation and other measures to increase the comfort of the patient, may be performed. Physicians and physician assistants at BASs also provide advanced trauma management.
- In the tactical evacuation phase, casualties are being transported to a medical treatment facility (MTF) by an aircraft or vehicle. Also, there is an opportunity to provide additional medical personnel and equipment to maintain the interventions already performed as well as the capability to deal with the potential for the patient's condition to deteriorate during the tactical evacuation.

Unit Hospital Corpsman. The company or squadron corpsman represents the first point where a sick, injured, or wounded Marine might receive care. If emergency or lifesaving measures are required before a hospital corpsman (HM) arrives, they must be performed by fellow Marines trained as a combat lifesaver, first responder self/buddy aid. Care from unit HM includes primary and secondary assessments, followed by emergency or lifesaving measures (i.e., establishing and maintaining an airway, control of bleeding, cardiopulmonary resuscitation, treatment for shock, and fracture stabilization). The HM's duties include basic medical skills, use of medical equipment and supplies, and initiation of requests for assistance and evacuation.

Combat Lifesaver. The combat lifesavers are nonmedical military personnel selected by their unit commander for additional training beyond basic first aid procedures. A minimum of one individual per squad, crew, team, or equivalent-sized unit should be trained. The primary duty of a

CLS does not change. The additional duty as a CLS is to provide enhanced first aid for injuries, based on his training, before the corpsman arrives or to assist the corpsman. Combat lifesaver training is normally provided by medical personnel organic to sustainment units. The senior medical person designated by the commander manages the CLS training program.

The Aid Station. The aid station is the Role 1 for the Marine Corps. Treatment at the aid station is distinguished by the skills of a physician, physician assistant, and an independent duty corpsman. Treatment at an aid station is provided based on a more comprehensive evaluation and treatment plan, which may include restoration of airway, use of intravenous fluids, antibiotics, and application of splints and bandages. These elements of medical management prepare patients for return to duty or evacuation to the appropriate role of care.

Role 2 Care

Role 2 care provides advanced trauma management and emergency medical treatment including continuation of resuscitation started in Role 1. Role 2 care provides a greater capability to resuscitate trauma patients than is available at Role 1. If necessary, additional emergency measures are instituted, but they do not go beyond the measures dictated by immediate necessities.

Forward Resuscitative Care. Forward resuscitative care (FRC) includes initial emergency resuscitative and stabilization surgery, coupled with life, limb, and eyesight saving actions. It provides a mobile surgical capability within theater and as close to the battlefield as is tactically possible. Forward resuscitative care does, however, require operational and logistical support when employed. Location and accessibility of forward resuscitative surgery is critical when evacuating casualties to the appropriate role of care. The specific tactical situation, time available, evacuation capability, and available resources determine what surgical procedures may be performed. It is essential to establish the capabilities of FRC and the relationship to the next appropriate role of care. The preparation of casualties for further evacuation and treatment at the theater hospital dictates standards of essential care.

Force level HSS is provided by HSS units and elements of the Marine logistics group (MLG). Limited resources preclude the ability to complete long-term courses of health care in a theater. Force level support augmentation may be provided from external resources, such as casualty receiving and treatment ships (CRTSs).

The Forward Resuscitative Surgery System. The forward resuscitative surgery system (FRSS) is a highly mobile, rapidly deployable, trauma surgical unit that will provide the emergency surgical interventions required to stabilize casualties who might otherwise die or lose limb or eyesight before receiving appropriate treatment. The FRSS has a small logistic footprint to support early introduction into the operating area, rapid movement, erection, deployment, and redeployment in forward areas.

Shock Trauma Platoon Support. Shock trauma platoon (STP) support includes collecting, clearing, and evacuating casualties from supported elements and medical units for resuscitative procedures and temporary holding of casualties. The STP is advanced trauma life support-capable and bridges the gap between first responder and forward resuscitative medical care.

Surgical Company. A surgical company (SC) can provide direct or general HSS including surgical care, FRC, stabilization, collecting/evacuating care, en route care, radiology, laboratory, holding care capability, and dental. As a planning factor, one SC can support a regimental size force. The SC provides the highest level of medical care organic to the Marine Corps.

Casualty Receiving and Treatment Ship. Large-deck amphibious ships are designated for use as CRTSs. This treatment phase is distinguished by the application of a clinical assessment by a team of medical officers and technicians. This role of care includes general surgery, basic laboratory, pharmacy, X-ray, dental, and holding ward capabilities. The objective of this phase of treatment is to perform and enhance emergency procedures that constitute initial resuscitative surgery and forestall death or loss of limb, eyesight, or body function. Patients who need a more comprehensive scope of treatment are evacuated to the role of care required by their condition.

Role 3 Care

Role 3 care provides treatment in an MTF or veterinary facility (for working animals) that is staffed and equipped to provide care to all categories of patients, including resuscitation, initial wound surgery, and post-operative treatment. This role of care expands the support provided at Role 2. Patients who are unable to tolerate and survive movement over long distances receive surgical care in a hospital as close to the supported unit as the tactical situation allows. This role includes provisions for evacuating patients from supported units, providing care for all categories of patients in an MTF with the proper staff and equipment, and providing support on an area basis to units without organic medical assets. Role 3 care as defined in the following subparagraphs

Theater Hospitalization/Surgical-Clinical Specialties. Provides essential care within the theater and is characterized by the use of theater hospitalization/surgical-clinical specialties. The theater hospital is at the core of ensuring quality health care to our forces, and the key to its success is the ability to provide care within 12 hours from the time of injury. Theater hospitalization facilities are staffed and equipped to provide resuscitation, initial wound surgery, and postoperative treatment. This role of care may be the first step toward restoration of functional health, as compared to procedures that stabilize a condition to prolong life and use of limbs and eyesight.

Hospital Ships, Navy Expeditionary Medical Facilities. Hospital ships, USN expeditionary medical facilities (EMFs) overseas hospitals, MTFs of other Services, and host-nation support (HNS) agreements provide theater level HSS. Movement of patients to and between theater facilities is coordinated through the theater patient movement requirements center (TPMRC).

The theater hospital should be employed in proper relation to the point of injury, taking into account the time-distance relationship and the ability of the patient evacuation system. The theater hospital should be placed where it best provides support to the combat forces to ensure that all injuries requiring surgical intervention are attended to within 12 hours.

Role 4 Care

Role 4 care is found in US base hospitals and robust overseas facilities. Mobilization requires expansion of military hospital capacities and the inclusion of Department of Veterans Affairs and civilian hospital beds in the National Disaster Medical System to meet the increased demands created by the evacuation of patients from the area of responsibility. The support-base hospitals represent the most definitive medical care available within the medical care system.

Definitive Health Care (Comprehensive Medical/Surgical). Definitive health care requires that the military health system develop and establish the most efficient means to interface with HSS requirements. This requires evacuation and hospitalization strategies that can maintain the capability to provide a fit and healthy force, prevent casualties, and provide care and management of casualties in theaters and in continental United States (CONUS). Definitive health care relies on all aspects of the military health system for successful implementation, which includes comprehensive HSS throughout the Department of Defense (DOD), and must be comparable to civilian standards. This role of care also provides Service members and their dependents with professional clinical care that targets health, fitness, and optimal physical and emotional well-being.

Continental United States (Full Convalescent, Restorative, Rehabilitative Care). Limited resources preclude the ability to complete long-term courses of health care in a theater. Medical care such as convalescent, restorative, and rehabilitative is normally provided in CONUS. Convalescent care is provided in military hospitals, other Federal hospitals, and selected civilian facilities that may be activated under the National Disaster Medical System. The Global Patient Movement Request Center coordinates movement of patients to and between CONUS MTFs.

TRIAGE

Triage is the medical sorting of patients according to the type and seriousness of the injury, likelihood of survival, and the establishment of priorities for treatment and evacuation. Triage ensures that medical resources provide care for the greatest benefit to the largest number of casualties. The following subparagraphs identify triage categories.

Immediate

Casualties within the immediate category require life-saving surgery. Procedures should not be time-consuming and should concern only those patients with a high chance of survival, such as respiratory obstruction, unstable casualties with chest or abdominal injuries, or emergency amputation candidates.

Delayed

Casualties within the delayed category require surgery, but the patients' general condition permits delay in surgical treatment without endangering life. Sustaining treatment such as intravenous fluids, splinting, administration of antibiotics, catheterization, gastric depression, and pain relief is required. Delayed casualties include large muscle wounds, fractures of major bones, intra-abdominal or thoracic wounds, and burns less than 50 percent of total body surface area.

Minimal

Casualties within the minimal category have relatively minor injuries (e.g., minor lacerations, abrasions, fractures of small bones, and minor burns) and can effectively care for themselves or can be helped by nonmedical personnel.

Expectant

Casualties within the expectant category would have wounds that are so extensive that even if they were the sole casualty and had the benefit of optimal medical resources application, survival would be unlikely. The expectant casualty should not be abandoned, but should be separated from the view of other casualties. Expectant casualties are unresponsive patients with penetrating head wounds, high spinal cord injuries, mutilating explosive wounds involving multiple anatomical sites and organs, second and third degree burns in excess of 60 percent of total body surface area, profound shock with multiple injuries, and distressful respiration. A minimal yet competent staff will provide comfort measures for these casualties.

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CHAPTER 2

ORGANIZATIONAL STRUCTURE

Evolving Marine Corps concepts require enhanced force mobility; therefore, HSS must evolve to meet these changes in an effort to be as capable and mobile as the forces they support. As a result, HSS has been organized to meet the needs of the Marine Corps with enhanced medical capabilities and evacuation facilities concentrated in the Marine air-ground task force (MAGTF) LCE and HSS battlefield facilities that must be able to establish, displace, and rapidly relocate.

In garrison and during routine deployments, Marine Corps units are not staffed with the full wartime complement of HSS personnel. When increased medical and dental manning levels are required, the Health Services Augmentation Program (HSAP) allows HSS manning levels to comply with wartime requirements. (See Bureau of Medicine and Surgery Instruction [BUMEDINST] 6440.5C Series, *Health Services Augmentation Program [HSAP]*, for detailed information on the HSAP process.)

MAGTF ORGANIZATION

The MAGTF is the Marine Corps' principal warfighting organization for missions across the full range of military operations. MAGTFs are balanced, combined arms forces with organic command and control, ground, aviation, and logistics elements. They are flexible, task-organized forces that can respond rapidly to a contingency anywhere in the world and are able to conduct a variety of missions. Although organized and equipped to participate as part of naval expeditionary forces, MAGTFs also have the capability to conduct sustained operations ashore. Marine air-ground task forces are task-organized, trained, and equipped to perform missions ranging from foreign humanitarian assistance, peacekeeping, and intense combat and can operate in permissive, uncertain, and hostile environments. Marine air-ground task forces may be shore or sea-based to support major joint and multinational operations and campaigns. MAGTFs deploy as amphibious and air contingency MAGTFs equipped from maritime prepositioning forces (MPFs), either as part of an amphibious expeditionary force or a strategic lift.

Each MAGTF, regardless of its size or mission, has the same basic structure with four core elements: a command element, a ground combat element (GCE), an aviation combat element (ACE), and an LCE (see fig. 2-1 on page 2-2). (For a thorough explanation of the MAGTF, see Marine Corps Reference Publication [MCRP] 5-12D, *Organization of Marine Corps Forces*.)

The command element is the MAGTF headquarters and is task-organized to provide C2 capabilities including intelligence and communications that are necessary for effective planning, direction, and execution of all operations.

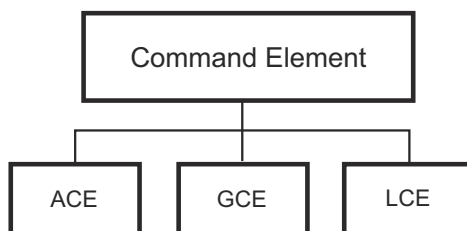


Figure 2-1. Marine Air-Ground Task Force Organization.

The GCE is task-organized to conduct ground operations supporting the MAGTF mission. The GCE is formed around an infantry organization reinforced with requisite artillery, reconnaissance, armor, and engineer forces, and can vary in size and composition from a rifle platoon to one or more Marine divisions (MARDIVs).

The ACE is task-organized to support the MAGTF mission by performing some or all of the six functions of Marine aviation; antiair warfare, offensive air support, assault support, electronic warfare, air reconnaissance, and control of aircraft and missiles. The ACE is built around an aviation organization that is augmented with the appropriate air C2, combat, combat support, and combat logistic units. Aviation combat elements can range in size and composition from an aviation detachment to one or more Marine aircraft wings (MAWs).

The LCE is task-organized to support the MAGTF mission by providing direct, general, and services-oriented support, and sustained combat logistics above the organic capabilities of supported elements.

MARINE CORPS FORCES

The commanders, US Marine Corps Forces, Pacific (MARFORPAC) and US Marine Corps Forces Command (MARFORCOM) are the Service component headquarters representing Marine Corps matters directly to the combatant commander. The role of a Marine Service component under MARFORPAC or MARFORCOM was retained only for specific naval service tasks. Headquarters, MARFORPAC and MARFORCOM deploy as Level II component headquarters.

The MARFORPAC and MARFORCOM surgeons are the principal advisors to their respective commanders, Marine Corps forces for all matters pertaining to HSS. The MARFOR surgeons, in coordination with the plans and logistic staff G-4 (MARFORPAC) or within the force surgeon directorate/division MARFORCOM, coordinate all HSS requirements and assets within the Marine Corps operating forces on behalf of the commander. Within the joint arena, HSS is coordinated by the respective combatant commander's component HSS operations center in theater. This may be US only or combined in the case of Combined Marine Forces Commander-Wartime in the Korean theater of operations. The MARFOR surgeons, with direct coordination and support from the plans and logistic staff, are responsible for the following:

- Ensuring integration of various roles of care.
- Coordinating joint, combined, or theater-specific HSS operations in theater.

- Conducting liaison with combatant commander/component surgeons and dental officers for theater health service integration (regionalization, standardization, and interoperability) and theater engagement.
- Coordinating staff liaison for theater medical threat assessment and promulgating FHP guidance to Marine expeditionary forces (MEFs)/major subordinate commands.
- Conducting validation of HSS requirements (e.g., medical logistic sustainability analyses, casualty estimates, Class VIII equipment/supplies/blood, preventive medicine [PVNTMED], medical intelligence, and HSAP).
- Monitoring and advocating major subordinate commands' requirements to readily support integration into theater combat health support systems (i.e., patient evacuation, medical regulation, and theater blood program operation).
- Monitoring and coordinating time-phased force and deployment data flow of MARFOR medical personnel (to include USN HSAP personnel) and medical equipment/supplies.
- Effecting liaison with theater integrated MEDLOG managers.
- Monitoring readiness of MEF/major subordinate commands' medical units via quarterly MEF/major subordinate commands readiness status reports (e.g., monitoring/coordinating blood supply and sustainment requirements with the theater blood program officer).

All MEF/MAGTF surgeons report all HSS matters and issues to their respective MARFOR surgeon.

MARINE EXPEDITIONARY FORCE

The medical section of the MEF staff consists of the MEF surgeon, medical plans officer, health services administrative officer, PVNTMED officer, dental officer (assigned as an additional duty from the dental battalion), and enlisted support personnel.

MEF Surgeon

The MEF surgeon functions as a special staff officer who advises the MEF commander on matters relating to the health of the command or unit readiness. The MEF surgeon is responsible for the staff supervision of medical training for medical and nonmedical personnel. The surgeon and the staff determine internal HSS requirements, recommend the allocation of organic medical resources, and establish priorities for medical support. The MEF surgeon deploys as a member of the MEF commander's special staff advising the commander on all professional, administrative, personnel, and operational HSS matters. The MEF dental officer may deploy with the MLG working with the MEF surgeon on the planning and delivery of dental care to the MEF. Specific responsibilities include the following:

- Exercise staff review of medical activities throughout the MEF, including routine health care, first aid, environmental health and sanitation, food service sanitation, and other PVNTMED activities affecting the health of the MEF, joint task force (JTF), or combined JTF.
- Ensure medical Class VIII(A) (medical and dental materiel) and Class VIII(B) (blood and blood products) are properly stored, issued, maintained, and available to organic medical facilities of the force.

- Plan and supervise health care and patient movement.
- Advise the force commander and staff of potential effects of chemical, biological, radiological, and nuclear (CBRN) weapons on personnel, equipment, water, and food.
- Recommend treatment procedures and ensure that facilities for treatment of CBRN casualties are available.
- Evaluate food and water after exposure to chemical/biological agents or other contaminants to determine suitability for consumption.
- Examine and report Class VIII materiel.
- Provide technical supervision of all health care related training to both medical and nonmedical personnel within the MEF.
- Coordinate disease surveillance for the force with the force PVNTMED officer.
- Provide HSS planning support.
- Provide planning guidance and input regarding HSS to the MEF OPLAN.
- Assign a senior dental officer to the MEF staff as a temporary assignment to coordinate dental requirements if not geographically collocated.

MEF Medical Plans Officer and Health Services Administrative Officer

The MEF medical plans officer and USN administrative officer not only assist the MEF surgeon with regular duties, but with planning, logistics, administrative coordination, record maintenance, and personnel administration. The health services administrative officer serves as the USN occupational field sponsor for all USN personnel issues for the commanding general via the assistant chief of staff (AC/S) for G-1. The MEF medical plans officer's duties are as follows:

- Conducting current and future health services planning and coordinating the MEF HSS effort in future and current operations.
- Implementing, monitoring, and evaluating medical intelligence to support operational and contingency plans.
- Coordinating medical support including Class VIII and personnel.

MEF Preventive Medicine Officer

The MEF preventive medicine officer is a physician with expertise in PVNTMED, public health, or occupational medicine. The MEF PVNTMED officer develops MEF-level PVNTMED policies for OPLANs, training, and in-garrison activities, and conducts disease outbreak investigations using biostatistical analysis of health trends in the MEF when required. A major focus of the PVNTMED unit is to conduct routine and operational disease surveillance monitoring the health and deployability of the force.

MARINE DIVISION

The Marine division staff medical section consists of the division surgeon, medical planner, environmental health officer, psychiatrist, and enlisted personnel assistants.

Division Surgeon

The division surgeon functions as a special staff officer under the cognizance of the AC/S G-4. The division surgeon advises the division commander on matters relating to the health of the command and provides professional advice to the commander on HSS matters. He is responsible for the staff supervision of medical training for medical and nonmedical personnel. The surgeon and the AC/S G-4 determine internal HSS requirements, recommend the allocation of organic medical resources, and prioritize medical support. The division surgeon's specific staff responsibilities include the following:

- Exercise staff responsibility for medical activities including routine health care, first aid, and PVNTMED activities affecting the health of the command.
- Monitor proper handling of supplies and equipment organic to the division.
- Supervise medical treatment and evacuation.
- Recommend procedures for the treatment of CBRN casualties.
- Examine and report Class VIII materiel.
- Provide technical supervision of all health care related training to medical and nonmedical personnel within the division.

Division Medical Planner

The division medical planner advises the AC/S G-4 on medical planning issues. The planner maintains and develops medical contingency plans to support the AO. The medical planner's responsibilities include the following:

- Plan and coordinate the MEF HSS effort in future and current operations.
- Conduct current and future health services.
- Organize medical support consisting of Class VIII(A) supplies and personnel for the AO.
- Assist the division surgeon in the performance of his duties.

Division Environmental Health Officer

The division environmental health officer assists the division surgeon by conducting disease and environmental surveillance; developing health threat assessments and countermeasures; and developing communications to ensure that commanders have the most complete situational awareness of potential and actual health threats, risks, and hazards. Specific staff responsibilities include the following:

- Anticipate and monitor environmental health threats.
- Evaluate and plan appropriate responses to environmental and occupational health stressors.
- Monitor immunization status, chemoprophylaxis, and compliance with environmental preventive measures.
- Prepare and provide briefs on real and potential environmental health threats to mission accomplishment, health and safety of personnel, and required preventive measures.
- Participate in planning conferences to ensure environmental health threats are adequately addressed in the OPLAN medical annex.

- Ensure that the necessary environmental health controls are planned and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, agricultural washdowns, and other necessary public health measures.
- Conduct pre-site assessments based on mission dependent variables (e.g., troop strength, duration, activities) and provide alternatives to less than ideal sites.
- Evaluate health risks at potential sites and make recommendations to prevent or lower risks.
- Provide continuous surveillance of the force and DNBI threats through active data collecting, analyzing, and reporting to higher authorities.
- Recommend countermeasures including vaccines, chemoprophylaxis, and environmental preventive measures.
- Conduct disease outbreak investigations.

COMBAT AND OPERATIONAL STRESS CONTROL AND READINESS

The combat and operational stress control and readiness team is designed to help leaders build individual and unit strength, resilience, and readiness. The team serves as a known, easily approachable, immediate point of contact that provides advice on stress-related issues and encourages Service members to get help when needed. The team provides early interventions or treatment as appropriate and helps affected Service members get back to full readiness and fellowship as soon as possible. The teams are described in table 2-1.

***Note:** The force structure of these teams reflects numbers that are subject to change.*

Table 2-1. Combat and Operational Stress Control Teams.

	I MARDIV	II MARDIV	III MARDIV	MFR	Total Build for Division
CDR psychiatrist	1	1	1	1	4
LCDR psychiatrist	3	3	2	0	8
LCDR MHNP	1	1	1	1	4
LCDR LCSW	1	1	1	1	4
LCDR psychologist	3	3	2	1	9
HM1 8485	1	1	1	1	4
HM2 8485	5	5	4	3	17
HM3 8485	4	4	3	0	11

Legend

CDR commander
 LCDR lieutenant commander
 LCSW licensed clinical social worker
 MHNP mental health nurse practitioner

REGIMENT (INFANTRY AND ARTILLERY)

The infantry regimental medical team is comprised of one medical officer and three hospital corpsmen. This team is organic to the headquarters company. The artillery regimental medical team is comprised of one medical officer and six hospital corpsmen. This team is organic to headquarters battery. Each medical section within its regiment provides HSS for regimental headquarters personnel. When a BAS is located near the regimental headquarters, it may not be necessary to establish a regimental aid station. In such an event, regimental HSS personnel should augment the BAS and regimental headquarters personnel should use the combined facility.

Regimental Surgeon

The regimental surgeon is a special staff officer who exercises staff supervision over HSS functions in the regiment and advises the regimental commander on health services of the command.

Health Service Support Sections of Separate Combat Battalions

The composition of HSS sections in separate battalions varies in proportion to total battalion strength and expected casualty rates. When detachments or elements of separate battalions operate in areas remote from the parent unit, HSS personnel are assigned, as required, from the parent battalion.

INFANTRY BATTALION

Infantry battalions with a headquarters and service (H&S) company, a weapons company and three rifle companies assigned have organic HSS assets with a table of organization (T/O) of two medical officers and 65 hospital corpsmen. These assets constitute the medical platoon of the battalion's H&S company. The battalion surgeon, with concurrence of the battalion commander, assigns medical personnel to line and weapons companies as needed.

Battalion Surgeon

The battalion surgeon advises the battalion commander on the health of the battalion and performs other duties as the commander may direct. Other duties may include supervising patient treatment and planning, organizing, and teaching battalion HSS staff. The battalion surgeon directs activities of the battalion medical section and is responsible for the following:

- Organizing the battalion medical section.
- Assigning duties to medical personnel.
- Preparing the health services appendix to the battalion's OPLAN.
- Supervising and assisting in collection, care, treatment, and evacuation of sick and wounded personnel.
- Planning the management of medical supplies and equipment, and testing the resupply system to ensure sufficient, but not excessive, supply levels for combat operations.
- Recommending sites for battalion medical installations.
- Maintaining medical records and preparing reports.

- Ensuring medical and sanitation inspections are conducted in accordance with Navy Medical (NAVMED) P-5010, *Manual of Naval Preventive Medicine*.
- Training medical department personnel in subjects relating to HSS.
- Supervising the instruction for nonmedical personnel in personal hygiene, PVNTMED, field sanitation, extraction of casualties from vehicles, litter bearing, and first responder self/buddy aid.
- Developing plans and procedures for handling contaminated casualties.
- Developing medical standing operating procedures (SOPs) consistent with unit and higher guidance.

Assistant Battalion Surgeon

The assistant battalion surgeon directs the operation of the BAS and performs other duties assigned by the battalion surgeon.

MEDICAL PLATOONS

In combat, company and platoon corpsmen perform procedures as necessary to prevent illness and injury, support life, and stabilize casualties for evacuation to facilities that can continue their care. Such procedures include the following:

- Establish an airway.
- Restore respiration.
- Control hemorrhage.
- Treat for shock.
- Apply dressings to a wound.
- Relieve pain.
- Initiate intravenous fluid administration.

Hospital Corpsmen

Hospital corpsmen assigned at the company and platoon levels perform best if they can remain with the same unit for the duration of their tour with Marine Corps operating forces. The hospital corpsmen become acquainted with members of their unit, gain their confidence, and become an integral part of the team.

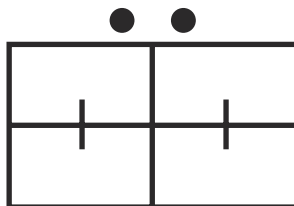
A team of 11 hospital corpsmen is normally assigned to a rifle company or a weapons company. The senior hospital corpsman, designated the company corpsman, is assigned to company headquarters and trains and supervises platoon corpsmen and litter bearers in the performance of their duties. To plan adequate medical support at his level of responsibility, the senior hospital corpsmen must be thoroughly briefed on the OPORD. The remaining HMs assigned to a company are designated platoon corpsmen.

Litter Bearers

While not part of the battalion medical section, litter bearers operate under the supervision of the battalion surgeon. Litter bearers are Marines designated by the commander to perform casualty collection and evacuation within the unit. Litter bearers should be designated well in advance of an operation, so they can be trained in casualty handling procedures. When demand for litter bearers is so great that a battalion cannot provide them without affecting its combat efficiency, the battalion commander should request additional personnel from the regimental commander.

The number of required litter bearers varies with the situation; 24 is considered the minimum for an infantry battalion. If distances are great or the terrain difficult, four bearers may be required per litter. Indigenous civilians may be employed as litter bearers if available and properly supervised.

BATTALION AID STATION



Mission

The BAS is a Role 1 care unit whose mission is to provide first responder medical capability supporting company and platoon corpsmen and provide an advanced level of care in the overall effort to sustain the combat force. The BAS is designed to provide HSS under combat conditions and operates as far forward as the tactical situation permits. The BAS's tasks include the following:

- Return patients to duty when possible.
- Conduct triage.
- Treat casualties to minimize mortality, prevent further injury, and stabilize for further evacuation.
- Record all casualties received and treated, and prepare casualty reports.
- Provide temporary shelter in conjunction with emergency treatment.
- Transfer evacuees from the aid station to ambulance, helicopter, or other evacuation transportation.
- Initiate medical treatment of combat stress casualties.
- Provide routine sick call for battalion personnel.
- Maintain health records of battalion personnel.
- Provide personnel replacement and medical replenishment for company medical platoons.
- Conduct routine disease and injury surveillance as an outcome measure of command preventive programs.
- Implement PVNTMED petty officer program and ensure that program elements are accomplished.

Organization

The BAS is manned by hospital corpsmen of the battalion medical platoon under the direction of the assistant battalion surgeon (see table 2-2). The aid station element is capable of establishing and operating two aid stations when necessary, the second being led by the battalion surgeon.

Table 2-2. Basic Aid Station Characteristics.

General Characteristics	Medical Characteristics
Aid stations are normally divided into 2 sections, with 1 officer and 10 enlisted, plus 4 medical teams of 11 enlisted each	Provides first responder and primary resuscitative care for approximately 50 casualties
Command and control: Provided by the BAS medical officer	Erect time 1 hour Maximum patient holding time 6 hours

Employment

Battalion aid stations are the most forward-deployed mobile units supporting the MAGTF. The BASs render support to GCEs from positions as close to forces in combat as the tactical situation permits. The Marine Corps' concept of expeditionary maneuver warfare requires that BASs supporting combat operations have a high degree of mobility.

MARINE AIRCRAFT WING

The MAW is the highest-level tactical aviation command in the Marine Corps' operating forces. A MAW is comparable to a MARDIV in command responsibility and is commanded by a major general. Each wing is a balanced combat force, primarily designed to support one MARDIV in an amphibious operation or a land operation. The two types of Marine aviation groups are Marine aircraft group (MAG), and Marine air control group (MACG). Each group is comparable to an infantry regiment in terms of command responsibility and is normally commanded by a colonel.

The larger organic medical support elements of the MAW are located in the Marine wing support squadron (MWSS) of the MAG. (See MCRP 5-12D for more information.) The medical section of the wing staff consists of the wing surgeon, medical planner/ administrative officer, and enlisted personnel assistants.

Wing Surgeon

The wing surgeon performs general duties as a special staff officer and a department head under cognizance of the chief of staff. The wing surgeon's duties include the following:

- Advise the wing commander on matters relating to the health of the command.
- Develop the command's medical policies and provide professional advice to the commander and his staff.
- Provide staff supervision of medical subjects training for the command's medical and nonmedical personnel.
- Determine internal medical support requirements and allocate organic medical resources.
- Establish priorities for medical support.

Specific staff responsibilities include the following:

- Provide staff supervision of medical activities throughout the command including routine sick call, medical treatment, flight physical examinations, and other activities affecting the health of the command.
- Ensure that medical supplies and equipment are properly stored, issued, maintained, and available to all organic HSS elements of the wing.
- Ensure that adequate first aid supplies are available.
- Plan and supervise the system of medical treatment and CASEVAC.
- Advise the wing commander and staff on potential effects of CBRN weapons on personnel, equipment, water, and food.
- Prescribe treatment procedures and ensure that facilities for treatment of contaminated casualties are available.
- Evaluate food and water after exposure to chemical/biological agents or other contaminants to determine suitability for consumption.
- Coordinate disease and injury surveillance with all wing components providing medical care through the environmental health officer.

Wing Medical Planner/Administrative Officer

The wing medical planner/administrative officer assists the wing surgeon and performs medical planning, coordinates administrative functions and logistics, maintains records, and performs personnel administration.

Group Medical Section

The group medical section is composed of one medical officer and two hospital corpsmen. This section is organic to the MAG headquarters and provides limited HSS to its personnel. Since a MAG headquarters is generally collocated with a MWSS, the MWSS will provide the majority of the health services. The MAG HSS personnel should augment the MWSS aid station.

Marine Aircraft Group Surgeon

The MAG surgeon is a special staff officer who exercises staff supervision over HSS and aeromedical functions in the MAG, including planning for deployments, coordinating with the MAG's supporting MWSS, preparing medical readiness, and advising the MAG commander on health services of the command.

Marine Wing Support Squadron

There are ten MAGs within three MAWs and each MAG has one MWSS. Each MWSS is designed to provide aviation ground support functions for one fixed-wing or rotary-wing expeditionary airfield, which supports the flying squadrons. Organic to each MWSS are medical officers, hospital corpsmen, and Class VIII(A) equipment and supplies to establish a squadron aid station capable of providing medical care to one Marine expeditionary airfield with attached flying squadrons (see table 2-3 on page 2-12). A dental detachment from dental battalion may be provided in support of each MWSS. Marine wing support squadron aid stations form the primary medical facilities of the MAW. In addition to routine sick call, each MWSS aid station provides aviation medicine, PVNTMED, laboratory, X-ray, and pharmacy services.

Table 2-3. Marine Wing Support Squadron Characteristics.

General Characteristics	Medical Characteristics
Mission: Provide first responder medical care to support MAWs Organization: One per MAG Command and control: The medical division medical officer reports directly to the MWSS commanding officer Size: (mobilization): 4 Navy officers, 33 Navy enlisted (rotary wing), 32 Navy enlisted (fixed wing)	Provides Role 1 care for approximately 50 casualties Erect time: 1 hour Maximum patient holding time: 6 hours

Squadron Medical Sections

Each flying squadron has a medical section consisting of a flight surgeon and three or four hospital corpsmen, depending upon squadron type. The medical section is capable of conducting routine sick call and aviation medical functions; however, by virtue of the centralization inherent in airfield organization and support, squadron medical personnel usually find it more convenient and efficient to work in conjunction with the MWSS aid station.

Marine Air Control Group and Subordinate Units

The medical section of the MACG headquarters is comprised of two medical officers and one hospital corpsman. The MACG surgeon advises the MACG commander on issues concerning the health of the group and its subordinate units, and supervises the other 11 hospital corpsmen within the group. The MACG and its subordinate units are dedicated to the control of aircraft and missiles to support the MAGTF. These units and assigned medical personnel include a Marine Tactical Air Command Squadron, a Marine Air Control Squadron, a Marine Air Support Squadron, and a Low Altitude Air Defense Battalion. These units depend on the MWSS aid station for all but the most routine health care support.

Medical Care Above Organic Capability

All or part of the ACE may be remotely located from the MAGTF LCE. Medical care beyond organic capability of the command element must be provided from MLG medical battalion assets or from other Service (joint or combined) medical facilities. Such contingencies must be adequately addressed in the MAGTF OPLAN or OPORD.

MARINE LOGISTICS GROUP

Health service support organic to the MLG may be divided into elements that provide internal support to the MLG and external support to MAGTF elements located outside of the MLG.

Internal Support

The group surgeon is a special staff officer under the cognizance of the commanding general. The surgeon advises the MLG commander on matters relating to the health of the command and provides clinical oversight of the group aid station (GAS). In respect to organic medical elements designed to support the MLG, the group surgeon's duties and responsibilities parallel those outlined for the division surgeon.

The GAS provides organic HSS to MLG headquarters (HQ) general support combat logistics regiment (CLR), and battalions and companies within the MLG not supported by a BAS. The operation of the GAS is under the cognizance of the commanding officer of CLR.

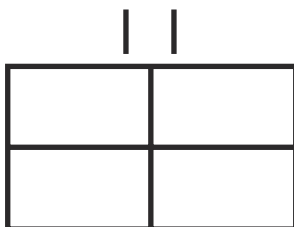
External Support

The health service support officer (HSSO) is a staff officer under the cognizance of AC/S G-3 of the MLG. The HSSO reviews and develops HSS requirements for OPLANs, supporting logistics, and combat logistic annexes. With other staff officers, the HSSO evaluates needs and develops MLG HSS responses that meet support requirements beyond the organic capability of the GCE and ACE. If needs exist beyond the MLG's capabilities, the HSSO advises the AC/S G-3. The HSSO's tasks include the following:

- Conducting current and future health services planning and coordinating the MEF HSS effort in future and current operations.
- Coordinating medical support including Class VIII and personnel.
- Collecting operationally significant medical information in the field and reporting this information to the National Center for Medical Intelligence (NCMI) through the G-2/S-2 section.
- Serving as officer in charge of the medical support section/medical support operations center, command operations center in MEF or MLG exercises/operations.
- Coordinating all medical and dental inter-Service support agreements for the MLG.

The health service support element (HSSE) plays a vital role in planning operational medical support. It is within the MLG G-3 operations section and is supervised by the HSSO. The HSSE coordinates the HSS requirements of the MAGTF and units external to the MLG.

MEDICAL BATTALION



Within the MEF, the medical battalion is the only Role 2 capability (see table 2-4 on page 2-14). Their primary purpose is to provide initial resuscitative and surgical treatment that, if not performed, could lead to loss of life, limb, or eyesight. Emergency care that includes initial resuscitation is continued and, if necessary, additional emergency measures are instituted that do not go beyond immediate necessities. These units have a short-term holding capability. In garrison and during routine deployments, the medical battalions use organic staff. When increased medical manning levels are required for contingencies or training exercises, units can be brought to wartime manning through HSAP.

Table 2-4. Medical Battalion Characteristics.

Units in Service	General Characteristics	Medical Characteristics
MARFORPAC: 1st Med Bn, 3d Med Bn MARFORCOM: 2d Med Bn MARFORRES [US Marine Corps Forces Reserve]: 4th Med Bn	Organization: 3 SCs at 1st Med Bn, 2 SCs at 2d and 3d Med Bn, 1 H&S company per medical battalion <i>Note: There is an embedded SC within the H&S company structure to provide a surgical capability, if required.</i> Command and control: medical battalion commanding officer reports to the commanding general, MLG	ORs: 14 (1st Med Bn), 10 (2d Med Bn), 8 (3d Med Bn) <i>Note: Each SC has two ORs (not included in the above numbers) available for sustained operations. These ORs are not manned but provide equipment for static operations, while multiple surgical platoons are collocated</i> Laboratories: 4 per SC X-ray: 4 per SC FRSS: 14 (1st Med Bn), 10 (2d Med Bn), 8 (3d Med Bn) STP: 14 (1st Med Bn), 10 (2d Med Bn), 8 (3d Med Bn) Maximum patient holding time: 72 hours (per SC) ERCS: 14 (1st Med Bn), 10 (2d Med Bn), 8 (3d Med Bn) Ward capability: 4 per SC (10 beds each) Combat stress: 3 platoons

Legend

ERCS	en route care system
Med Bn	medical battalion
ORs	operating rooms

Mission

The medical battalion provides direct and general HSS to the MEF in order to sustain the combat effort. The medical battalion's tasks include the following:

- Provide Role 2 care, to include initial resuscitative care, resuscitative surgery, and temporary holding of casualties, to the MEF.
- Provide medical regulating services for the MEF.
- Provide PVNTMED support to the MEF.
- Assist in the collection, analysis, and dissemination of medical intelligence.
- Provide the medical elements for the establishment of casualty decontamination and treatment stations.
- Provide medical support for the management of mass casualties and combat stress casualties.

Organization

The medical battalion is a subordinate command to the MLG and is organized to execute HSS functions in support of the MAGTF's mission. The medical battalion provides initial resuscitative

HSS to the MEF and is structured to facilitate task organization for operations conducted to support the MEF. Performing emergency medical procedures that, if not performed could lead to loss of life, limb, or eyesight, is the medical battalion's primary mission. The H&S Company provides C2 of the battalion. Additionally, H&S Company has an embedded SC with two surgical platoons to provide Role 2 care, when required (see fig. 2-2). The medical battalion's surgical companies each contain surgical platoons with an FRSS, STP, laboratory, X-ray, a ward for temporary casualty holding, and en route care system (ERCS) capable of managing patients at the STP and the ward.

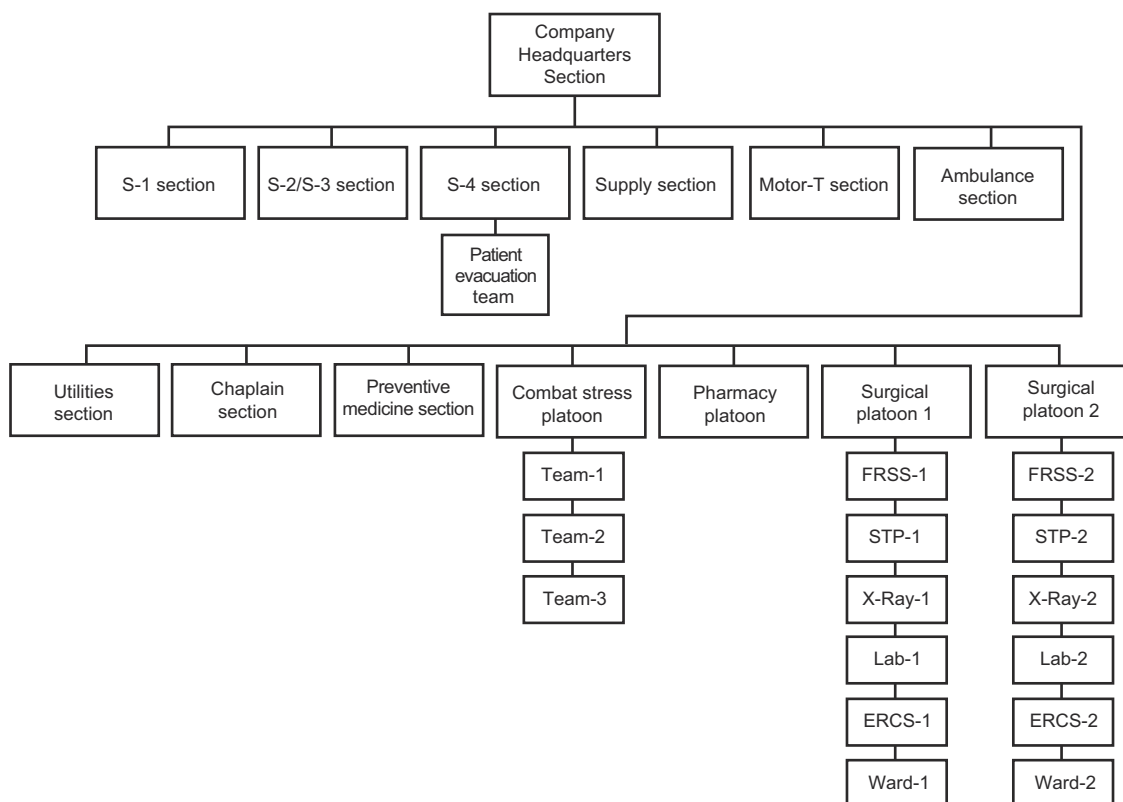


Figure 2-2. Headquarters and Service Company, Medical Battalion Structure.

The medical battalion is made up of an H&S company and its subordinate SCs. Within the medical battalion is also a PVNTMED unit composed of an environmental health officer, entomologist, and PVNTMED technicians. The PVNTMED unit is a significant force enabler capable of providing the full scope of PVNTMED and occupational and environmental health site assessment activities for the purpose of ensuring a healthy deployable force. The combat stress platoon and chaplain section are also included in H&S Company.

The surgical company is designed to deploy with a direct support combat logistics battalion (CLB) in support of a regimental combat team (see fig. 2-3 on page 2-16). The CLB provides the SC with electrical power, communications, transportation, and services in order for the SC to provide HSS to the regimental combat team. The SC provides FRSS, STPs, medical treatment, and temporary holding of casualties from supported forces. They also prepare and evacuate casualties whose

medical requirements exceed the established theater evacuation policy. Base operating support is required from the assigned CLB. The SC is composed of a headquarters platoon and four surgical platoons. Each surgical platoon contains the following:

- Forward resuscitative surgery system.
- Shock trauma platoon.
- Ward with 10 cots holding capability.
- X-ray section.
- Ambulance section.
- Laboratory section.
- En route care section.
- Dental section (augmented from dental battalion).

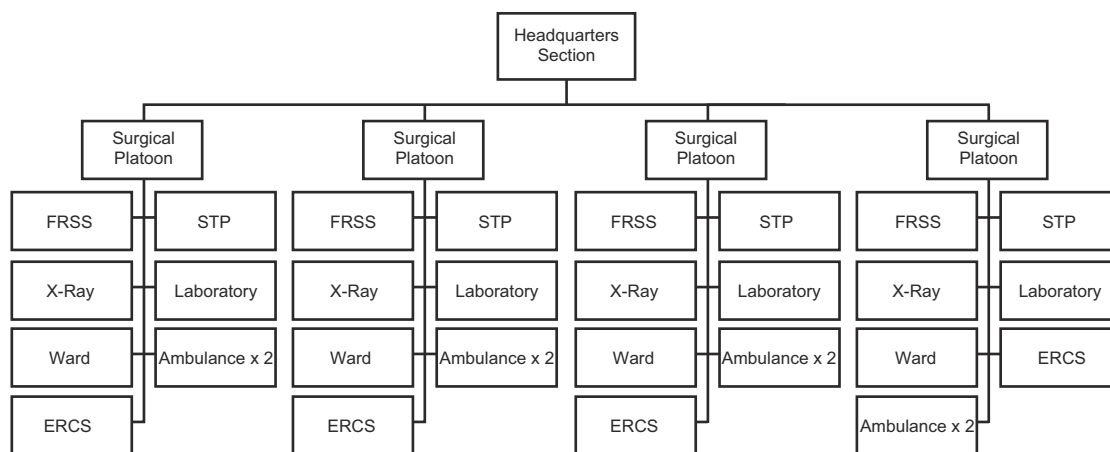


Figure 2-3. Surgical Company, Medical Battalion.

***Note:** The surgical company is a major link in the chain of evacuation. When practical, the SC can be located in close proximity to an airfield that is capable of CASEVAC by rotary- or fixed-wing aircraft.*

Command and Control. The medical battalion commander exercises C2 through the battalion staff and the company commanders. He directs and controls command support functions relating to operations, administration, and logistics/combat logistics.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and defense of medical installations in accordance with applicable international law.

Mobility. Organizational vehicles of the battalion, transportable by fixed-wing aircraft and by heavy-lift rotary-wing aircraft, provide limited mobility. Transportation support is required from the MLG to affect displacement.

Communications. Medical battalion requires communications support. The MLG HQ regiment provides communications support as required.

Intelligence. The MLG HQ regiment provides intelligence support as required.

Security. Medical battalion has a limited organic security capability. The MLG HQ regiment provides security support as required.

Employment

Medical battalion units are task-organized to support the mobility and flexibility requirements of the MAGTFs. Medical battalion constitutes appropriately sized and configured SCs to support specific MAGTFs.

Each component of the surgical company may be task organized to meet mission requirements. An SC maintains the capability to be organized to meet the casualty demand of the mission when not deployed per the given T/O. Capabilities of the SC, such as the STP, may also be task-organized to support distributed operations or augmentation to the BAS. If additional resources are called for, an SC may also be reinforced through task organization. It is necessary to take into account the degradation in capability of the remain behind asset when performing task organization outside of the T/O.

Shock Trauma Platoons. STPs are designed to provide direct support to medical elements organic to the GCE and ACE of a MAGTF. Where required by the OPLAN, STPs lend themselves to being task-organized in support of Marine expeditionary units (MEUs) and Marine expeditionary brigades (MEBs). Shock trauma platoons may be combined or collocated to increase capability or relieve a BAS of its patients, allowing the BAS to follow in trace of its combat elements or as the advance element for the location of a surgical company. Another way an STP may be employed is as part of a mobile LCE. Shock trauma platoons should be combined with FRSSs to provide triage and pre-/post-operative care. The STPs also provide communications and patient movement support to the FRSSs.

Forward Resuscitative Surgery System. The FRSS is one of the smallest units that provide surgical care to combat casualties. An FRSS is capable of providing a full spectrum of trauma care ranging from triage, advanced trauma life support and stabilization through salvage surgical procedures. The FRSS is designed to provide a significant increase in the capacity and capability of any medical unit that is present.

The FRSS is the primary unit for resuscitative treatment. It is employed when the tactical situation precludes the use of a surgical company ashore and when rapid casualty transport to CRTS or to land-based surgical facilities is unavailable. The FRSS is used to support one or more maneuver elements, augmented by an STP or BAS. It is supported by an STP or BAS for initial triage, communications, security, and patient movement.

The patient holding capability of the FRSS is no more than four hours. When a stabilized patient needs evacuation, the FRSS requires en route care teams to support movement to a higher role of care. An FRSS can care for a total of five patients at any one time (two pre-operatives, one intra-operative, and two post-operatives). The FRSS can provide for a maximum of 18 casualties

requiring surgery over a period of 48 hours before requiring resupply and relief of personnel. An FRSS can be transported using available rolling stock, by tactical aircraft or by surface vessels.

The FRSS does not require materiel handling equipment for loading and off loading in a tactical environment. Total equipment weighs approximately 6,300 pounds excluding personal gear and environmental control units, and has a total volume of 640 cubic feet. The FRSS is able to cease operations and prepare for transportation within an hour of warning for reassembly at another site and can be fully operational within 40-60 minutes after arrival. The FRSS can be readily transportable, rapidly deployable, and capable of being internally transported in one MV-22. The entire assemblage and personnel (eight), to include shelter, power supply, and environmental control units, are ground transportable in USMC light tactical vehicles: one M997, one M998, and two M101A trailers.

During Operation Iraqi Freedom (OIF), FRSS teams were designated as either jump or forward HSS capabilities. Forward resuscitative surgical system teams with STPs were attached to LCEs and provided forward resuscitative capability as far as the tactical situation permitted. Forward resuscitative surgical system teams with STPs moved with the tactical units that they supported and were never subsumed in their respective company. Jump FRSSs, along with an STP and a ward section, served as the forward echelon of a surgical company and provided FRC until the remainder of the SC displaced to the forward-support area. Once the surgical company was fully established at the support area, the jump FRSS, along with supporting HSS capabilities, could leapfrog forward to the next support area as necessary. During OIF-II, employing two FRSS teams with an STP significantly increased the HSS capability to successfully manage higher casualty loads or surge operations.

Surgical Company. A fully deployed SC is best suited for a general support role from a location less likely to require displacement and relocation. However, the surgical company's structure and organization enable it to divide into independent elements for deployment and, therefore, also provide direct support to operating forces. For example, the STP of an SC may be deployed with the assault echelon of a combat force, while other SC capabilities are placed in the assault follow-on echelon (AFOE). Upon entry, the remaining units of the SC may join the STP or the SC may establish in a different location.

Logistic Capabilities

Supply. The medical battalion is supported by CLR for supply support. The MEDLOG platoon, supply company provides Class VIII supply support. The MEDLOG platoon maintains capability sets for the battalion while in garrison and provides supply assistance as required. It is the medical battalion commander's responsibility to validate that authorized allowances remain in a deployable status at all times; however, it is the supply company's obligation to ensure that authorized allowances are properly ordered and maintained.

Maintenance. The MLG HQ regiment provides organizational maintenance support on organic equipment except for medical equipment. The MEDLOG platoon, supply company provides organizational and intermediate maintenance support for medical equipment and maintains the authorized medical allowance lists (AMALs). The maintenance battalion provides intermediate maintenance for nonmedical equipment.

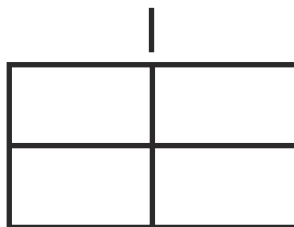
Transportation. The battalion is capable of organic transportation for command and administrative purposes. It is also capable of organic transportation for evacuation of casualties by ground ambulance from forward-medical elements and transfer of patients to roles of care in other combat logistic areas.

General Engineering. Engineer support battalion provides engineering support as required.

Health Services. The battalion is capable of organic medical support. The general support (GS) CLR GAS provides routine sick call within the MLG. The dental battalion provides dental support.

Note: Medical battalions have no equipment or consumable supplies designed to provide routine sick call or day-to-day health care to battalion personnel; however, it is reasonable to expect that medical battalion personnel that are assigned to or located with a deployed STP or SC will receive medical care from that facility.

Services. Services support is provided by the MLG, as required. For messing, the battalion is capable of limited food service support.



HEADQUARTERS AND SERVICE COMPANY

Headquarters and service company consists of the battalion headquarters, S-1 personnel/administration, S-2/S-3 intelligence and operations, S-4 logistics, S-6, a chaplain section, combat stress platoon, and a PVNTMED section. The headquarters company section includes a surgical company with two surgical platoons. A surgical platoon consists of one FRSS, one STP, one X-ray, one laboratory, one ward, one ERCS and one ambulance section for 24-hour operations.

Mission

The mission of H&S company is to provide C2 and command support functions for the medical battalion. It also provides collecting, clearing, and evacuation of casualties through the surgical platoons and comprehensive PVNTMED services to all supported units. Headquarters and service company provide the following:

- Command support functions for the operation of the battalion, to include personnel administrative support for assigned Marine Corps personnel, supply, maintenance, and transportation support.
- Medical regulating and medical data coordination.

- Medical specialist augmentation to the companies of the battalion.
- Preventive medicine support to the MEF.

Organization

Headquarters and service company plans, coordinates, and supervises the command support functions for the battalion. It is structured to facilitate task organization for operations conducted by the battalion to support MAGTF operations.

Command and Control. The company commander directs and controls command-support functions relating to operations, administration, and logistics/combat logistics.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and defense of the medical installations in accordance with applicable international law.

Mobility. Organizational vehicles provide limited mobility. Transportation support is required from the CLR to affect displacement.

Communications. Communications support and equipment are provided by the MLG as required.

Employment

Headquarters and service company provides C2 facilities and administrative and service support for the medical battalion. Headquarters and service company is structured to facilitate task organization and provide surgical care as a general support capability for the MLGs. Communication detachments should be assigned to augment surgical companies and STPs.

Logistic Capabilities

Supply. Headquarters and service company is capable of organic supply support. The MEDLOG platoon provides Class VIII supply support as required.

Maintenance. Headquarters and service company is capable of organizational maintenance on organic equipment. The CLB maintenance company provides intermediate maintenance support for nonmedical equipment as required, and CLB MEDLOG platoon, supply company provides for medical equipment.

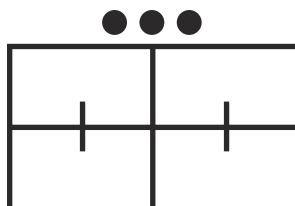
Transportation. Headquarters and service company is capable of organic transportation support for command and administrative purposes.

General Engineering. Engineer support battalion provides engineering support.

Health Services. The medical battalion is capable of organic medical support. The GS CLR GAS provides routine sick call within the MLG. The dental battalion provides dental support.

Services. Services support is provided by the MLG, as required. For messing, the medical battalion is capable of limited food service support.

SHOCK TRAUMA PLATOON



Mission

The STP provides direct HSS to the MEF to include collecting, clearing, and evacuation of casualties from supported MEF elements for resuscitative treatment care and temporary holding of casualties. The STP tasks include the following:

- Establish and operate clearing and evacuation stations.
- Establish medical treatment facilities for resuscitative treatment and temporary holding of casualties.
- Provide and coordinate medical evacuation.
- Provide medical support to personnel of other Services and nations as provided in applicable regulations and agreements.
- Provide humanitarian care as required by international law.

Organization

The STP is the most mobile medical support platoon of the medical battalion. It can serve as a beach evacuation station, reinforce a BAS, operate as an intermediate casualty collecting and clearing point between forward medical elements and the SC, or serve as the forward element of an SC (i.e., triage/evacuation platoon) preparing to relocate. An STP reinforced with PVNTMED, GAS, and dental personnel may also provide HSS to a CLB or MEU.

Command and Control. Headquarters and service company commander directs and controls command support functions relating to operations, administration, and logistics/combat logistics for the platoon.

Firepower. Organic firepower is limited to individual weapons for personal protection and for defense of medical installations in accordance with applicable international law.

Mobility. Organizational vehicles provide ground mobility. Vehicles, personnel, and equipment of the platoon are helicopter-transportable. Each collecting and evacuation section has two tactical ambulances (M997) for collecting casualties from the next forward medical support area and the stabilization section has two medium tactical vehicle replacements to move the STP personnel and equipment.

Communications. The STP requires communications support from supporting LCE to include very high frequency (VHF) and high frequency single-channel radios and vehicular single-channel radios to perform its mission

Employment

The stabilization section provides the nucleus for a 10 flow-through litter facility and evacuation stations for emergency treatment, triage, and ambulance transfer points. While a degree of mobility is sacrificed in providing a patient treatment facility, the STP must maintain the capability to evacuate casualties and move to support BASs and the MAGTF elements it serves. The methods by which this facility is established, displaced, and relocated must keep pace with the mobility and flexibility demanded by MAGTF operations.

Logistic Capabilities

Supply. The STP has limited organic supply capability to receive, temporarily hold, account for, and consume Class VIII supplies. H&S company, medical battalion provides all other nonmedical supply support and MEDLOG platoon provides medical supply support.

Maintenance. The STP is capable of limited organizational maintenance on organic equipment. The CLB maintenance company provides intermediate maintenance support for nonmedical equipment as required, and CLB MEDLOG platoon provides support for medical equipment.

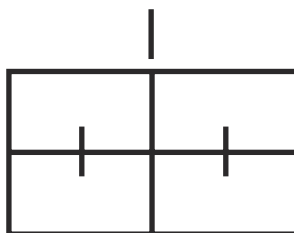
Transportation. Organizational vehicles of the company provide limited mobility.

General Engineering. Engineer support battalion provides engineering support as required.

Health Services. The STP is capable of organic medical support. Dental battalion provides dental support.

Services. Marine logistics group provides services support as required. For messing, CLR or the supporting LCE provides food service support.

SURGICAL COMPANY



Mission

The surgical company provides general HSS to the MEF to include capabilities of care for temporary medical/surgical treatment and holding of casualties. The surgical company supports a regimental or MEB-sized force. The SCs tasks include the following:

- Establish medical treatment facilities for resuscitative surgery, medical treatment, and temporary hospitalization of casualties.
- Prepare to receive casualties from the next forward medical treatment capability of care in the evacuation chain.

- Establish medical treatment facilities for resuscitative surgery, medical treatment, and temporary holding of casualties from supported forces.
- Prepare for evacuation of casualties whose medical requirements exceed the established theater evacuation policy.
- Provide and coordinate medical evacuation for the landing force.
- Provide medical support to personnel of other Services and nations as provided in applicable regulations and agreements, and provide humanitarian care as required by international law.

Organization

The surgical company plans, coordinates, and supervises assigned functions of medical support for the medical battalion. The SC is structured to facilitate task organization for operations conducted by the battalion to support the MEF, MEB, or any combination of smaller MAGTFs. The SC consists of a headquarters platoon and four surgical platoons. A surgical platoon consists of one FRSS, one STP, one X-ray, one laboratory, one ward, one ERCS, and one ambulance section for 24-hour operations. An attached dental platoon provides dental support and will assist in the triage, care, and evacuation of casualties. Combat stress capabilities are available in the battalion and can be task organized from H&S company if given the mission.

Command and Control. The company commander directs and controls command support functions relating to operations, administration, and logistics/combat logistics for the company.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and defense of the medical installations in accordance with applicable international law.

Mobility. Organizational vehicles of the surgical company are helicopter-transportable and provide limited mobility. Transportation support is required from the MLG to affect displacement.

Communications. The SC requires communications support, to include VHF and high frequency single-channel radios, vehicular single-channel radios, and analog switchboard and telephone support to perform its mission.

Employment

The surgical company is designed to allow mobility and flexibility in deployment. An SC may be divided into smaller sections in order to task-organize the support. This facilitates deploying a platoon or section in the assault echelon and the remaining capability in the AFOE shipping. In a displacement and relocation evolution, it may be expedient to move platoons and sections in leapfrog fashion, to provide maximum continuity of patient care.

Logistic Capabilities

Supply. The surgical company is capable of organic supply support to receive, temporarily hold, account for and, when augmented by MEDLOG, issue Class VIII supplies. The SC serves as an emergency resupply source for medical materiel for supported medical units. The CLB provides all other nonmedical supply support, and the MEDLOG platoon, supply company provides medical supply support.

Maintenance. The SC is capable of organizational maintenance on organic equipment. Organizational and intermediate maintenance support for medical equipment is provided by CLB MEDLOG platoon, supply company. The maintenance company provides intermediate maintenance support for nonmedical equipment.

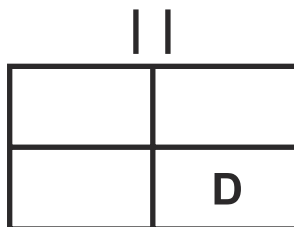
Transportation. Transportation is limited to ground ambulances. Headquarters and service company, medical battalion provides or coordinates motor transport support. MLG provides support for displacement or relocation.

General Engineering. The engineer support battalion provides engineering support as required.

Health Services. The surgical company is capable of organic medical support. The dental battalion provides dental support.

Services. As required, MLG provides services support. For messing, H&S company, medical battalion provides limited food service support. The supporting LCE can augment this capability.

DENTAL BATTALION



The dental battalion is the source of dental services to the MEF. By attaching scalable task-organized dental sections and detachments to elements of the MAGTF, dental battalion personnel ensure dental readiness and optimize health during exercises, deployments, stability operations, and combat operations.

Mission

The dental battalion provides scalable, task-organized dental elements to the LCE to minimize the effects of dental emergencies, injuries, and illness on unit effectiveness, readiness, and morale. The dental battalion also provides forward disposition of dental casualties via rapid treatment and return to duty or evacuation, as well as assists in the triage, care, and evacuation of casualties. The dental battalions tasks include the following:

- Provide a comprehensive program of garrison dental health care for the MEF.
- Coordinate MEF dental health care support requirements.
- Provide dental detachments, as required, to support MAGTFs that are smaller than a MEF.
- Supervise the implementation of dental-health care delivery programs for the MEF.
- Provide triage, medical care, and evacuation of casualties as required.
- Assist in forensic identification.

Organization

The dental battalion consists of an H&S company and three dental companies from which task-organized, operational dental support is provided to the MEF, MEB, or any combination of smaller MAGTFs.

Command and Control. The dental battalion commander exercises C2 of the battalion through the battalion staff and the company commanders. The commander directs and controls command support functions of operations, administration, and logistics/combat logistics for the battalion. The dental battalion commander deploys as a member of the MLG commander's special staff advising on dental matters and coordinates employment of dental personnel and resources.

Firepower. Organic firepower capability is limited to individual weapons for personal security and defense of dental installations in accordance with applicable international law.

Mobility. Organizational vehicles of the battalion are helicopter-transportable and provide limited mobility. Transportation support is required from the transportation support battalion to affect displacement.

Communications. Communications company, MLG HQ regiment provides communications support.

Intelligence. Marine logistics group, HQ regiment provides intelligence support.

Security. Marine logistics group, HQ regiment provides security support.

Employment

Dental battalion provides scalable, task-organized support to the MEF. Expeditionary field dental equipment authorized dental allowance list (ADAL) 662, organic to the dental battalion, is lightweight, compact, mobile, and capable of being independently sited. Each ADAL will provide dental diagnostic, preventive, emergency, and maintenance capabilities.

Logistic Capabilities

Supply. Dental battalion is capable of organic supply support. Class VIII medical supply support is provided by MEDLOG platoon.

Maintenance. The dental battalion is capable of organizational maintenance on organic dental and nondental equipment. Medical logistics platoon, supply company provides intermediate maintenance support for dental equipment and maintains the ADALs. Maintenance battalion provides intermediate maintenance support for nondental equipment.

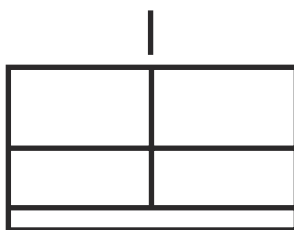
Transportation. Dental battalion is capable of organic transportation support for command and administrative purposes.

General Engineering. Engineer support battalion provides engineering support as required.

Health Services. The GS CLR GAS provides routine sick call within the MLG, and the dental battalion provides dental support.

Services. Service company, CLR provides service support as required. For messing, CLR provides food service support.

MEDICAL LOGISTICS PLATOON, SUPPLY COMPANY, COMBAT LOGISTICS REGIMENT, MARINE LOGISTICS GROUP



The MEDLOG platoons are not an HSS organization of the medical battalion, but a supply and maintenance operation directly responsible to the commanding officer, supply company, CLR. There are two 10-man platoons located within each MLG with one 10-man platoon per CLR. When in garrison, these platoons will be located within the same facility and act as one company. When forward deployed, the platoons are able to be split and deploy with the respective supply companies. The MEDLOG platoons provide the organizational structure of centralizing HSS capability set maintenance and management within the MLG.

Mission

The MEDLOG platoon provides general supply and maintenance support for Class VIII materiel of the MEF. The MEDLOG platoon tasks include the following:

- Provide general supply support, to include establishing and operating Class VIII(A) supply points and acquisitions, receipt, and issue, for Class VIII(A) MEF materiel.
- Provide organizational maintenance on organic equipment and intermediate maintenance support for Class VIII(A) MEF equipment.
- Provide support for packing, preserving, storing, and maintaining Class VIII(A) resupply.
- Provide for the receipt, storage, and issue of Class VIII(A) supplies, intermediate maintenance support for biomedical/technical medical and dental equipment, and first level maintenance support for MAGTF medical and dental equipment.
- Provide technical assistance to MAGTF medical and dental units for the maintenance, inventory, and quality control of units' AMALs/ADALs.
- Establish and operate Class VIII(A) supply points within the LCE to support MAGTF to include acquisition, receipt, storage, stock rotation, and issue of Class VIII(A) material as directed by commanding officer, supply company.
- Initiate line item issue of Class VIII(A) supplies when directed.

***Note:** The MEDLOG platoon does not maintain Class VIII(B) (blood) but does maintain blood equipment.*

Organization

Medical logistics platoons consist of a headquarters section, three supply platoons, and an equipment repair platoon. The MEDLOG plans, coordinates, and supervises the common support functions of the battalion. It is also structured to facilitate task organization of detachments to support MAGTF operations.

Command and Control. The commander directs and controls command support functions relating to operations, administration, and logistics/combat logistics for the company.

Firepower. Organic firepower capability is limited to individual weapons for personal security.

Mobility. Organizational vehicles of MEDLOG provide limited mobility. Transportation support is required from the transportation support battalion to affect displacement.

Communications. Marine logistics group, HQ regiment provides communications support as required.

Employment

Medical logistics platoon is structured to provide a centralized supply and maintenance facility for Class VIII(A) supplies and equipment. The supply platoons are capable of centralized operations under MEDLOG or decentralized operations in three balanced units to support MEF, MEB, or smaller MAGTFs. The equipment repair platoon is capable of in-store maintenance of medical and dental equipment of the MEF, and operating in a centralized repair site and through decentralized, on-site maintenance support teams.

Logistic Capabilities

Supply. Medical logistics platoon is capable of organic supply support.

Maintenance. Medical logistics platoon is capable of organizational maintenance on organic equipment, and organizational and intermediate maintenance on MEF medical and dental equipment. Headquarters and supply company provide for other organic, nonmedical or nondental Marine Corps-furnished equipment and organizational maintenance support. Maintenance battalion provides intermediate maintenance support.

Transportation. Medical logistics platoon is capable of organic transportation support for command and administrative purposes. In order to affect distribution of Class VIII(A) supplies, augmentation by the MLG general support motor transport company is required.

General Engineering. Engineer support battalion provides engineering support as required.

Health Services. The GS CLR GAS provides routine sick call within the MLG, and dental battalion provides dental support.

Services. Service company, HQ regiment, MLG provides service support as required. For messing, H&S battalion provides food service support.

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CHAPTER 3

NON-MARINE CORPS

HEALTH SERVICE SUPPORT ASSETS

Health service support augmentation to hospital ships (T-AHs), MARFORs, CRTSs, forward-deployable preventive medicine units (FDPUs), EMFs, and outside the continental United States (OCONUS) MTF augmentation during contingencies and wartime is provided through the HSAP. The personnel assigned to these platforms have the medical skills, the training requirements, and the capabilities tailored to the platform assigned. If any operational commander requires medical support above and beyond the HSAP, USN medicine has the capability to task-organize and meet the requirement. The operational commander may request the required capability from the Office of the Chief of Naval Operations through the operational chain of command.

MEDICAL AND DENTAL FACILITIES OF SHIPS AND LANDING CRAFT

In expeditionary operations, designated ships of an amphibious task force (ATF) provide medical and dental support to the landing force until the mission is completed or until the ships are tasked with a follow-on mission. The ATF ships suitable for use as CRTSs are the amphibious assault ships (LHD/LHA). These ships require augmentation by a large number of HSS personnel to achieve full casualty treatment capability.

In operational scenarios that fall short of requiring full wartime mobilization, partial casualty treatment capability may be achieved through a task-organized process that meets operation requirements by requesting augmentation of medical capabilities through the HSAP. The numbers of HSS personnel required to bring the LHD/LHA to fully augmented levels are cited in the discussion of individual ship types, which can be found in various other publications.

Amphibious Assault Ships

The mission of the LHD/LHA is to operate offensively in a high density, multithreat environment as an integral member of the amphibious strike force or group. The LHD/LHA functions as a primary landing ship for MEFs; when the fleet surgical team (FST) is embarked, it functions as the CRTS. The CRTS requires the HSAP augmentees to provide full expanded HSS capabilities. The LHD/LHA capabilities and staffing are shown in table 3-1 on page 3-2.

Table 3-1. Amphibious Assault Ship Capabilities and Staffing.

LHD/LHA Capability	SHIP/FST Staffing		SHIP/FST/HSAP Staffing
Operating rooms	1		4
Intensive care unit (ICU) beds	3		15
Ward beds	12		45
Ancillary capabilities	Laboratory, X-ray, pharmacy, PVNTMED, biomedical repair, aviation physical examination		Laboratory, X-ray, pharmacy, PVNTMED, biomedical repair, aviation physical examination
	SHIP	FST*	HSAP
Complement			
Medical corps	2	3**	11
Dental corps	1		1
Nurse corps		3**	22
Medical service corps	1	1	1
Hospital corpsmen	19	9	49
* The FST officer in charge can be 2XXX.			
** Includes certified registered anesthesiologist or nurse anesthetist.			

Amphibious Transport Dock

The mission of the amphibious transport dock (LPD), is to transport Marines, equipment, and supplies by embarked landing craft or amphibious vehicles augmented by helicopters. The LPD San Antonio class contains enhanced C2 features and a robust communications suite that improves its ability to support embarked landing forces, a MAGTF, and joint and friendly forces. It is equipped with ORs and ward beds without the staffing capability. Table 3-2 shows LPD capabilities and staffing.

Table 3-2. Amphibious Transport Dock Capabilities and Staffing.

LPD Capability	Austin Class Staffing*	San Antonio Class Staffing
Operating rooms	0	1
Ward beds	17	24
Ancillary capabilities	Laboratory and X-ray	Laboratory and X-ray
Complement		
Medical corps	1	1
Dental corps	1	1
Hospital corpsmen	9	15
*As the San Antonio class comes on line, the Austin class of LPDs is being phased out.		

Landing Ship Dock

The mission of the landing ship dock (LSD), is to transport Marines, equipment, and supplies by embarked landing craft or amphibious vehicles augmented by helicopters. The LSD supports amphibious operations including landings by way of landing craft air cushion. Table 3-3, on page 3-3, lists LSD capabilities and staffing.

Table 3-3. Landing Ship Dock Capabilities and Staffing.

LSD Capability	Staffing
Ward beds (2 isolation beds)	8
Ancillary capabilities	Laboratory and X-ray
Complement	
Medical corps	1
Dental corps	1
Hospital corpsmen	5

Hospital Ship

Hospital ships provide a mobile, flexible, and responsive afloat medical and surgical care capability. The Hospital Ship Program consists of two ships, the US Naval Ship Mercy (T-AH 19) and the US Naval Ship Comfort (T-AH 20). The program is the responsibility of Commander, Military Sealift Command as the type commander for both of the ships. Each ship is an afloat medical treatment facility containing 12 fully equipped operating rooms. Hospital ships are afloat trauma hospitals that are designed to deliver theater hospitalization capability in support of combat and foreign humanitarian assistance operations, both afloat and ashore, and DOD support to civil authorities. Functioning under the provisions set forth in the Geneva Conventions, when fully manned, these ships have the capability that is comparable to a CONUS general hospital. Health service support capabilities and staffing for the T-AHs are shown in table 3-4.

Table 3-4. Hospital Ship Capabilities and Staffing.

T-AH Capability	Staffing
Operating rooms	12
ICU beds	88 (includes 20 postsurgical recovery beds)
Intermediate care beds	400
Minimal care beds	500
Ancillary capabilities	Laboratory, X-ray, pharmacy, computerized tomography scanner, blood bank
Complement (staffing up to 1,000 beds)	
Medical corps	66*
Medical service corps	20*
Nurse corps	127*
Hospital corpsmen	700*
Nonmedical officers	13*
Nonmedical enlisted	243*
Dental corps	4*
*Numbers may vary depending on the mission.	

Expeditionary Medical Facility

Each maritime prepositioning ships squadron contains a 150-bed EMF that, when established, has two operating room suites with two operating room tables each, 20 ICU beds, and 130 acute care beds. These facilities are USN assets embarked on a maritime prepositioning ship (MPS), forward deployed, and configured for use in contingencies. Although the EMF is transported on the MPS, once it enters the theater of operations it becomes a capability of the geographic combatant commander. The EMF is operated and staffed by USN personnel through HSAP and coordinated by Bureau of Medicine and Surgery. Additionally, the USN has other EMFs ranging from 10 to 50 beds that can operate independently and be configured to meet capabilities-based requirements. As the EMFs are phased through the integrated logistic service program, they are being modularized to allow for smaller, more mobile hospital units.

FORWARD DEPLOYABLE PREVENTIVE MEDICINE UNIT

The FDPMU is a rapidly deployable, task-organized, specialized PVNTMED platform that meets the operational commander's FHP needs. It includes all capabilities of the former forward-deployed laboratory plus many expanded capabilities, including CBRN agent identification.

Mission and Functions

The mission of the FDPMU is to further FHP by identifying and evaluating environmental health hazards, assessing the risk of adverse health outcomes, and monitoring the health of the deployed force. The FDPMU advises the operational commander concerning significant risks, recommended countermeasures, and other interventions that are required in order to protect the health of the force. The five major functional components of FDPMU are preventive medicine, chemical, microbiology, disease vector, and occupational and environmental health site assessment.

Preventive Medicine. Conducts surveillance data analysis, epidemiological investigation of outbreaks, environmental health monitoring and assessments, and determination of water quality. Recommends interventions for prevention and control of occupational and environmental illnesses, injuries, and diseases.

Chemical. Detects, identifies, and monitors chemical warfare, and environmental and radiological hazards and exposures.

Microbiology. Detects, identifies, and tests naturally occurring and biological warfare infectious disease agents, and makes laboratory diagnosis of militarily-relevant infectious diseases in support of outbreak investigations.

Disease Vector. Conducts surveillance and specimen collection, processing, and control of animals and insects that potentially transmit militarily-relevant, vector-borne diseases. Provides recommendations regarding force personal protection strategies.

Occupational and Environmental Health Site Assessment. Environmental health site assessments are conducted to determine if environmental contaminants from current and prior land use, disease

vectors, or other environmental conditions exist at deployment sites that could pose health risks to deployed personnel. Additionally, they identify industrial facility operations, and commodities on or near a deployment site that, if destroyed, damaged, or released, could result in catastrophic health risk to deployed forces.

Employment

The FDPMU functions independently of the health care delivery mission of deployed roles of care and focuses on providing rapid health hazard identification and threat assessment to the operational commander. The FDPMU is capable of tailoring its size and composition according to operational mission requirements; any single component or combination of components can deploy as the mission requires. The FDPMU is capable of providing support for the full spectrum of contingencies.

FLEET SURGICAL TEAMS

The FSTs provide the commander, amphibious squadron (PHIBRON) a surgical capability detailed to a designated LHA/LHD platform when deployed to support the Fleet Response Program. The LHA/LHD may be augmented with HSAP personnel to achieve full CRTS operational capability. Fleet surgical teams provide forward resuscitative surgical and medical support to all ships within the amphibious readiness group or expeditionary strike groups while deployed. Staffing includes a general surgeon, anesthesiologist or nurse anesthetist, family practice physician, operating room nurse, intensive care nurse, and corpsmen.

Fleet surgical teams are deployed to LHA/LHD with an assigned PHIBRON, and support the amphibious readiness group or expeditionary strike group for any contingency. Operations that require medical and surgical support more than what can be provided by the FST are requested by the PHIBRON.

MEDICAL INFORMATION AND INTELLIGENCE

The medical intelligence products most widely used throughout DOD include products produced by the NCMI. A field production activity of the Defense Intelligence Agency, NCMI's mission is to prepare and coordinate integrated, all-source intelligence for the US DOD and other government and international organizations on foreign health threats and other medical intelligence issues to protect US interests worldwide.

Medical Intelligence Products

The NCMI produces a wide variety of medical intelligence assessments based on customer requirements. Major product groups are discussed in the following subparagraphs.

Medical, Environmental, Disease Intelligence and Countermeasures. Provides worldwide infectious disease and environmental health risks hyperlinked to the Joint Service-approved countermeasure

recommendations, military and civilian health care delivery capabilities, operational information, disease vector ecology information, and reference data.

Health Services Assessment. Provides consumers the bottom-line assessment of a country's health services capability.

Infectious Disease Risk Assessment. Provides predeployment force protection planning and guidance that assesses the baseline risk from infectious diseases of operational military significance on a country-by-country basis worldwide.

Environmental Health Risk Assessment. Assesses environmental health risks of operational military significance on a country-by-country basis worldwide.

Infectious Disease Alert. Formerly known as the disease occurrence worldwide, provides short, timely alerts that assess risk to US forces from foreign disease outbreaks that may impact military operations and forecast disease risks associated with recent environmental disasters.

Industrial Facility Health Risk Assessment. Assesses health risks associated with potential exposure to toxic industrial chemicals at specific industrial facilities worldwide.

Industry Sector Profile. Assesses potential environmental and human health impacts related to routine emissions and large-scale chemical releases from industrial activities by industry sector.

Life Sciences and Biotechnology. Assesses foreign basic and applied biomedical and biotechnological developments of military medical importance, foreign civilian and military pharmaceutical industry capabilities, and foreign scientific and technological medical advances for defense against chemical, biological, radiological, and nuclear warfare.

Medical Intelligence Note. Provides a brief assessment of important medical developments to meet time-sensitive requirements for support to medical planning and decision-making as well as materiel research, development, and acquisition.

Additional Medical Intelligence Resources

Local Command G-2 Sections. Additional medical intelligence may be requested through G-2 MEF sections, division, wing, or MLG.

Navy and Marine Corps Public Health Center, Navy Environmental and Preventive Medicine units, and Navy Disease Vector Ecology and Control Center. These facilities offer updated disease information on areas of the world or specific countries.

All medical intelligence and information, no matter what the form or source, must be shared with cognizant G-2/S-2 staff sections. Medical personnel should be aware that gathering medical information from the field that may have an intelligence application is an important function of USN medicine.

CHAPTER 4

OPERATIONS

The Marine Corps establishes operational foundations for organizing, manning, equipping, training, and developing doctrine and operational techniques for MAGTFs of the Marine Corps operating forces. Health service support is a mission area common to every MAGTF regardless of type, size, or mission; therefore, definitive operational planning for HSS is always subordinate to specific MAGTF operational planning. The inherent flexibility in MAGTF task organization and the broad spectrum of potential missions calls for matching flexibility in subordinate mission area planning. A notional HSS operational framework is applicable to each basic MAGTF type.

The size, type, and configuration of HSS facilities to effectively support a MAGTF are determined by—

- The MAGTF's mission.
- Scope and expected duration of the operation.
- Expected combat intensity.
- Availability of other HSS facilities in the AO.

MARINE EXPEDITIONARY FORCE

The medical and dental battalions of the MLG normally provide HSS beyond the organic capabilities of the MEF GCE and ACE. Additional support may be required from designated CRTSs of the ATF. In any MEF-sized operation, medical support will also be required from HSS facilities of other Services within the theater of operations.

Whenever possible, collocation of HSS facilities may enhance the capabilities of the medical battalion. Economies may be realized in the use of medical department personnel, unit defense, and transportation; however, consolidation provides a larger target and may limit mobility and employment options. The operational commander decides whether to consolidate or disperse HSS assets during the planning phase. Subsequent tactical events may require modification of original plans. If required, task-organized HSS elements may be detached to support geographically remote ground and aviation forces.

MARINE EXPEDITIONARY BRIGADE

The GCE and ACE of a MEB receive HSS above their organic capabilities from task-organized components of the medical and dental battalions. Additional support may be required from designated CRTSSs of the ATF, and from medical facilities of other Services within the theater of operations, such as USN EMFs and T-AHs. The notional task-organized HSS for a MEB consists of the following:

- One aid station for Role 1 care.
- Two to four STPs.
- One to three FRSSs.
- One dental platoon.
- En route care capability.
- Preventive medicine personnel.
- One medical logistics detachment.
- One patient evacuation team (PET).

This HSS structure operates as part of the LCE supporting a MEB. The LCE for a MEB is designated as a CLR.

***Note:** There is not an established T/O and table of equipment for a MEB since they are task-organized for the mission from the units available within the MEF.*

Marine expeditionary brigade HSS personnel embarked on amphibious force ships augment amphibious force medical and dental departments in providing care to landing force embarked personnel. Landing force Class VIII(A) equipment and consumable supplies will not be used in the afloat phase of medical support, except when authorized by the MEB commander.

A dental section from the dental battalion provides preventive dental maintenance and emergency dental care for the deployed MEB and renders assistance to medical units in the triage, care, and evacuation of casualties.

MARINE EXPEDITIONARY UNIT

The MEU is task-organized around a battalion landing team, reinforced helicopter squadron, and a combat logistics battalion. Capable of limited combat operations, it provides an immediate reaction capability for crisis situations and is capable of self-sustainment for approximately 15 days.

Each MEU element deploys with its own organic HSS capability. Health service support detachment structure falls primarily under the CLB and includes the following: emergency physician, physician assistant, emergency room nurse, medical plans officer, dental,

preventive medicine, independent duty corpsman, and hospital corpsmen (8404). The MEU may also include adjunct medical staff such as industrial hygiene, entomology officers, and staff. Medical specific staff includes—

- Shock trauma platoons.
- Headquarters and service company, medical battalion elements.
- Medical logistics platoon detachments.
- Dental detachments.

Both the composite squadron and the battalion landing team consist of medical personnel that directly support their missions. The composite squadron consists of a flight surgeon, aeromedical safety officer, and corpsmen. The battalion landing team consists of corpsmen attached to each company.

The tactical situation ashore will dictate the size of the HSSE capability ashore. This capability may range from a beach or helicopter evacuation station staffed by a triage/evacuation platoon to an STP reinforced with sections of a surgical company; however, the elements of an STP are of sufficient size to manage most medical situations.

The MEU does not occupy battlespace for humanitarian assistance/disaster relief, and remains afloat en route to the humanitarian assistance/disaster relief AO until further directed. The MEU may act as both the JTF operational reserve and quick response force.

Before operations start, MEU HSS personnel aboard amphibious ships will augment and support amphibious force medical and dental departments to care for embarked personnel of the landing force. Landing force Class VIII(A) equipment and supplies will not be used aboard ship unless authorized by the MEU commander in support of an overwhelming emergency.

If HSS elements of the CLB remain afloat and carry out their mission from a sea base, those elements will augment medical and dental departments of the amphibious force in a combined HSS effort. The MEU surgeon may recommend that the MEU commander authorize HSS personnel of the CLB to use Class VIII(A) consumable supplies and equipment, if necessary, to carry out their mission. This contingency should be addressed in the OPORDs.

The HSS element of the CLB is capable of operations ashore. The shore-based element may be no more than a beach or helicopter evacuation station manned by a triage/evacuation platoon or an STP. The operation may require that the entire HSS CLB section be located ashore. The following guidelines apply, regardless of tactical basing of HSS elements.

- Combat and HSS elements of the MEU are responsible for the collection and initial treatment of casualties.
- During the HSS planning process, prior planning is essential to request either designated or standby airframes to perform CASEVAC if available. During advance force operations and follow-on force operations, the MEU medical planner may have the opportunity to designate airframes in the air tasking order. In the absence of an aviation evacuation capability,

CASEVAC is accomplished with surface transportation. Any available form of transportation may be used for CASEVAC.

- The dental detachment that supports a MEU uses afloat facilities/supplies. When required, landing force Class VIII(A) dental equipment/supplies are used to provide emergency, maintenance, and preventive dental care while embarked. When ashore, the dental detachment provides scaled dental treatment based on the tactical environment and logistical maturity of the theater. Additionally, it assists in the triage, care, and evacuation of casualties.

SEA-BASED/AMPHIBIOUS OPERATIONS

The phased landing of medical facilities in the amphibious objective area (AOA) varies with the tactical situation and physical environment.

Assault Echelon

In the assault echelon, medical support ashore is limited to the capabilities of medical sections organic to combat units. Until BASs are established ashore, medical care for initial assault forces is provided by self-aid, buddy aid, and the corpsmen of landed rifle platoons.

Infantry BASs and their personnel are divided into two sections, with assigned battalion nonmedical litter bearers divided between the two sections. The 1st echelon of the BAS lands with the battalion combat train and is established in close support of the assault force. The 2d echelon of the BAS lands with the field train, and may be required to establish an evacuation station until relieved by designated evacuation station support elements.

Evacuation station facilities are task-organized and formed by the supporting medical battalion, typically STPs. Evacuation stations are established with the landing force support party (LFSP), and constitute the evacuation section(s) of the LFSP. The primary role of an evacuation station is to facilitate evacuation of assault force casualties to designated CRTSs.

When evacuation stations attached to the LFSP become operational ashore, 2d echelon elements of BASs are relieved to conduct their missions in primary support of parent battalions. Following the landing of assault battalions and supporting evacuation stations, the buildup of HSS facilities ashore begins.

Assault Follow-on Echelon

The buildup of landing force HSS facilities ashore begins as soon as the tactical situation permits. These facilities are primarily the task-organized medical battalion elements embarked to support combat operations. In a notional MAGTF scenario involving a MEB, the first medical battalion unit that lands could be either a group of STPs or a surgical company. By virtue of its size and time required to make the facility operational, STPs would normally be selected. In another scenario, an SC might be the first large facility landed. The initial facility establishes shore-based capabilities for emergency care, stabilization, and temporary holding of casualties.

Surface-evacuated casualties from landing force units flow through shore-based facilities once established. Casualties evacuated by air may bypass shore-based facilities en route to a CRTS.

It may be necessary to employ additional STPs or SCs in the AOA to achieve adequate dispersion of facilities. Such decisions are dictated by enemy threat, geographical employment of MAGTF elements (especially fixed-wing aviation), and other tactical and environmental considerations.

If aircraft and a suitable airfield are available, CASEVAC by rotary- or fixed-wing aircraft from the AOA to HSS facilities located rearward in theater may begin during this stage.

Dental care is provided during the AFOE phase to retain combat troops in theater. A dental section employs with each surgical company. A dental detachment from a dental platoon-ground may be employed to reinforce STPs with attached surgical sections to treat and evacuate casualties.

Follow-on Forces

When progress of assault units is such that the beachhead is relatively secure, landing force HSS facilities move into the follow-on force stage. The stages being described represent only notional or general scenarios. Potential variables resulting from such factors as threat level, tactical mission, terrain, geography, weather, force at risk, or opposing forces will dictate progression through force build-up stages.

A major landing force medical support objective is to achieve a posture capable of providing shore-based health care that is consistent with the expected combat intensity and duration of continued operations ashore, independent of sea-based facilities. This objective is achieved by upgrading capabilities ashore through consolidation of facilities and bringing ashore any landing force medical assets not already landed.

Since the surgical company plays an important role in the chain of evacuation, the SC should, whenever possible, be located in close proximity to an airfield that is capable of CASEVAC by rotary- or fixed-wing aircraft.

When a sustained land operation is envisioned for the MAGTF, additional HSS facilities will be provided in the form of USN EMFs (or other Service equivalent facilities) or a T-AH. As the HSS capability ashore matures, dental care will transition from emergency care to maintenance/preventive services.

ENEMY PRISONERS OF WAR

In accordance with the Geneva Convention and the Law of Armed Conflict, enemy prisoner of war (EPW) patients are afforded the same level of health care as patients of the detaining power. The provision is a command responsibility for guards of prisoners receiving medical treatment and for the wards that house prisoners. Since casualties receiving medical care are potential intelligence sources, medical personnel should cooperate closely with unit intelligence officers. Forward surgical companies are not to be used in lieu of an EPW stockade, nor will medical

treatment be withheld or delayed purely to facilitate interrogation of prisoners. Enemy medical personnel should provide assistance in treating other prisoners.

HEALTH SERVICE SUPPORT FOR OTHER SPECIAL CATEGORY PATIENTS

In modern military operations, health care services may be required by a wide category of potential patients. These potential demands should be carefully considered in initial planning. Categories that require careful consideration include—

- Indigenous allies and friendly and unfriendly civilians.
- Paramilitary organizations.
- Representatives of various US agencies.
- United States civilian contractor personnel.
- Mercenary units employed by multinational forces.

As a general rule, any individual may be treated on a humanitarian basis if space and staff are available. Fine lines of distinction often exist that must be clarified by the command. For example, wounded, unfriendly civilians may be subject to restrictions and regulations that do not apply to EPWs.

PATIENT MOVEMENT

The primary mission of the DOD patient movement system is to transport US military casualties from within the combat zone to the field or a fixed medical treatment facility either in or out of the combat zone as necessary. Timely patient movement plays an important role in HSS and supports the CONOPS and evacuation requirements. Patient movement is a system that provides a continuum of care and coordinates the movement of patients from site of injury or onset of disease, through successive capabilities of medical care, to an MTF that can meet the needs of the patient. Each Service component has an organic patient movement capability and is responsible for evacuation from point of injury to initial treatment at a health care facility. (See MCRP 4-11.1G, *Patient Movement*, for more information.)

Casualty evacuation, a term used by all Services, refers to the unregulated movement of casualties aboard ships, vehicles, or aircraft. Medical evacuation (MEDEVAC) refers to US Army (USA), USN, USMC, and US Coast Guard patient movement using predesignated tactical or logistic aircraft, boats, ships, and other watercraft temporarily equipped and staffed with medical attendants for en route care. The USA has dedicated air and ground evacuation assets. Assault echelon specifically refers to United States Air Force (USAF) provided fixed-wing movement of regulated casualties using organic and/or contracted mobility airframes with assault echelon aircrew trained explicitly for this mission. In addition, the Civil Reserve Air Fleet may be used for the assault echelon mission.

The operational environment during major operations and campaigns may present lethal threats requiring the evacuation of casualties to highly developed medical capabilities in the joint operations area and locations outside the theater of operations for advanced medical services and rehabilitative care. The decreased medical footprint and the increased patient movement requirements demand a more interdependent medical community, improved interagency and multinational partnerships, and the development of joint solutions.

Medical Regulating

Medical regulating is defined as the actions and coordination necessary to arrange for the movement of patients through the roles of care and to match patients with a medical treatment facility that has the necessary health service support capabilities and available bed space. (JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*)

Casualty Evacuation Versus Medical Evacuation. As it applies to Marine Corps missions, CASEVAC refers to the movement of casualties by any mode of transportation from the point of injury to a higher role of care.

Medical evacuation traditionally refers to patient movement using dedicated or predesignated tactical or logistic aircraft temporarily equipped and staffed with medical attendants for en route care.

Aeromedical evacuation refers to patient movement provided by the USAF in fixed-wing aircraft, using organic and/or contracted airframes, with aeromedical evacuation aircrews trained specifically for the mission.

Protection Under the Geneva Conventions. Depending on the designation of patient evacuation assets, protection under the Geneva Conventions differs as follows:

- Dedicated evacuation assets are configured for patient evacuation, externally marked with a red cross, and specifically dedicated to support the MEDEVAC missions. Dedicated assets need not be organic to the unit. Dedicated evacuation assets are authorized protection under the Geneva Conventions. The Navy and Marine Corps do not have dedicated air evacuation assets. Dedicated evacuation assets must only be used for medical purposes; they should not be used to transport combat troops or equipment or they will lose their protection under the Geneva Conventions.
- Designated evacuation assets are those where the primary mission is nonmedical, are not externally marked, and are allocated on the air tasking order and configured for patient movement. Designated evacuation assets are not afforded protection under the Geneva Conventions.
- Opportune lifts are usually nonmedical conveyances used to move patients. While patients are protected under the Geneva Conventions, these conveyances are not protected. Opportune lifts have no organic medical personnel or medical equipment assets and should only be used if the patient condition warrants.

For more information on the Geneva Conventions, see appendix A.

The limited number of MAGTF assault support aircraft precludes assignment of designated CASEVAC assets for an operation. Although many of these aircraft can perform this mission, it will often be designated as a secondary or standby mission. Aviation doctrine for CASEVAC is found in MCWP 3-24, *Assault Support*, which places CASEVAC as one of the missions under the air evacuation subcategory of assault support.

In the absence of dedicated evacuation aircraft, USMC doctrine dictates that during the HSS planning process, prior planning with the MAW medical planner is essential to request either designated or standby airframes to perform patient movement. Within the MEF, the MLG HSSE conducts planning for patient evacuation aircraft. In the absence of an aviation evacuation capability, CASEVAC is accomplished by use of ground ambulance, medium tactical vehicle replacements, small boat, or landing craft air cushion.

Casualty Sorting

Basic to the successful operation of a patient movement system is an effective process of casualty sorting, also referred to as triage. Rapid evaluations must be made to identify which patients need immediate resuscitation and which can tolerate delay in treatment. Of equal importance is deciding which patients should be moved to other medical facilities after initial treatment.

Medical Management

Under combat conditions, the flow of sick and wounded puts variable pressure on capabilities of medical facilities. Incoming casualties create the necessity to move casualties who are stable and are capable of being evacuated. Clinical and administrative services must maintain close coordination to achieve effective management of individual casualties. Medical officers are responsible for decisions concerning movement of patients. They must work closely with administrative officers charged with conducting patient movement. Above all, the basic objective is preserving life, limb, and eyesight.

Evacuation Request Procedures

The commander, amphibious task force (CATF) controls medical regulating until operational control (OPCON) passes ashore. The CATF exercises C2 of medical regulating through the task force medical regulating officer via the CATF surgeon. The commander, landing force exercises C2 of patient movement through the PET via the landing force surgeon. Detailed coordination and planning is required to affect this transition. Requesting units make CASEVAC requests by radio to the helicopter direction center on the helicopter direction net when control is sea-based, or under the direct air support center (DASC), and on the tactical air request/helicopter request net when command and/or net control has been passed ashore. The air officer will then consult with the amphibious force medical regulating control officer when sea-based, and the landing force patient evacuation officer or PET when ashore for recommendations on the best medical facility.

When conducting operations ashore, the PET coordinates patient movement by ground transport, air transport, or a combination of the two, from point of injury to FRC and between various roles of care. The DASC and PET receive patient evacuation requests through the nine-line MEDEVAC request, over the tactical air request/helicopter request net or alternate communication route. The PET then determines the appropriate means of patient movement and destination HSS facilities. If air is the appropriate evacuation means, the DASC coordinates air support. If ground evacuation is required or more appropriate, the PET informs the requesting unit to coordinate patient movement

with the G-4 or LCE and will assist as necessary. The PET will track all patient movement through the completion of the mission.

Depending on the size of the operation, the PET might only assume responsibility for patient movement from point of injury to Role 2 care, and the MLG HSSE/medical support operations center (MSOC) or higher regulating authority will assume movement above Role 2 care. This would be decided prior to deployment and written into the Annex Q (Medical Services) of the OPLAN or OPORD. During OIF, the 1st Force Service Support Group HSSE, as part of the G-3, was designated as the MSOC and functioned within the force service support group command center. The PET was collocated in the DASC to coordinate air evacuation and a smaller patient evacuation cell was collocated in the logistic movement control center for ground evacuation coordination.

En Route Care

En route care (ERC) and MEDEVAC have proven valuable in saving lives and conserving military manpower. The timely movement of patients to the appropriate roles of care reduces patient waiting time and allows facilities to relocate. The goals for ERC are to ensure the evacuation system can move critically ill or injured patients by the appropriate mode of transportation and preserve forward-deployed medical personnel.

En route care provides the capability to move stabilized patients. Essential care initiated prior to evacuation must be continuous. During transport, stabilized patients may continue to have physiological and hemodynamic fluctuations, which may necessitate close monitoring and timely intervention.

En route care requires the use of state-of-the-art equipment and lightweight, critical care equipment ensuring the evacuation system can successfully transport a patient from Role 2 to Role 3 care. En route care equipment is standardized throughout the system, assuring rapid equipment exchanges and forward resupply, and will comply with flight-testing requirements.

En route care must be flexible and able to integrate with various modes of transportation, rotary- or fixed-wing aircraft, and sea transport platforms. Important transportation factors of ERC are availability, mode, operational range, space, and lift limitations. Tactical factors must also be considered at each level of planning and implementing ERC.

During OIF, ERC was critical to the success of the FRSS. En route care personnel were identified, trained, and equipped prior to crossing the line of departure. Critical care nurses from the MLG and EMFs provided ERC support to forward FRSS units. Forward FRSS units were weighted with ERC nurses during combat operations. Positioning ERC capability with forward medical elements proved to be very valuable, especially when mitigating the amount of time required in conducting a turnover of patient care to the ERC nurse.

The Marine Corps ERCS is an essential follow-on for the FRSS, composed of one critical care nurse and one corpsman (8404), with three teams per surgical company (1st Medical Battalion has an additional SC). The ERCS is capable of providing medical care for two critically injured/ill, but stabilized, patients for two hours during flight. The ERCS provides capabilities to support expeditionary maneuver warfare by meeting an operational requirement to evacuate patients up to

240 nautical miles using designated medium lift aircraft. The ERCS is employed when the tactical situation requires prompt transport of critically injured or ill patients from forward surgical and treatment elements to the shore- or sea-based treatment facilities. Less critically injured/ill patients are transported using current protocols.

COMMUNICATIONS AND INFORMATION SYSTEMS

Communications and information systems (CIS) provide management and decision support tools for the HSS commander and staff to collect, transport, process, disseminate, and protect voice, data, and information.

Communications and information systems include tactical single channel VHF, super-high frequency, high frequency, and ultrahigh frequency radios; tactical and commercial telephones; multichannel digital systems; satellite communications; cryptographic equipment; and data systems for classified and unclassified local area network/wide area network connectivity. All of these systems are used by common units and are allocated in accordance with the commander's priorities.

To improve interoperability, increase efficiency, and reduce costs, DOD has mandated that the Services move to a common set of information systems and services. This implementation is occurring with the fielding of the Global Command and Control System (GCCS) and the implementation of the defense information infrastructure common operating environment.

Health service support uses the Joint Operation Planning and Execution System (JOPES) for planning and execution under GCCS. Joint policies, procedures, personnel, training, and a reporting structure supported by automated data processing on GCCS are combined in JOPES.

Marine Expeditionary Force

Communications battalion provides CIS support for HSS organizations. The G-6/S-6 must plan for connectivity among the division, wing, and MLG, as well as external communications with organizations in the joint arena.

Division

Communications company, headquarters battalion provides CIS support for HSS personnel.

Wing

Marine wing communications squadron and MACG provide CIS support for HSS personnel.

Marine Logistics Group

Communications company, HQ Regiment, MLG provides CIS support for HSS personnel.

Deployed Marine Expeditionary Force

Communications information systems support for HSS personnel will come from the supporting communications element.

INFORMATION MANAGEMENT

Health service support has traditionally been supported by a variety of information systems and procedures that aided the user in the collection, analysis, presentation, and storage of information. The systems used unique hardware and software configurations that performed specialized functions. These systems typically were unable to access or share data and information with other systems. New designs have been developed that consolidate and improve accessing and sharing information. This migration has continued under the auspices of the theater medical information program (TMIP).

The TMIP's mission is to provide integrated automation of the theater medical environment. The program provides a global capability linking HSS information databases and integration centers that are accessible to the warfighter while engaged in any mission. This connectivity is essential to aid theater commanders in making time-sensitive decisions critical to the success of their operations. The TMIP integrates HSS capabilities under a joint CONOPS. The program assists the HSS commander/theater surgeon and supports the delivery of responsive combat medical care. The means to combine existing, developing, and future medical information is established by TMIP.

The TMIP's C2 capabilities collect medical information about personnel, medical units, facilities, equipment, supplies, and training during alert/mobilization, deployment/sustainment, and reconstitution or redeployment. Information is received, processed, displayed, and analyzed to generate and publish plans and orders. The TMIP enables the assessment of personnel medical status and the readiness and capabilities of the HSS units. The program provides the required information links to HSS organizations and enables rapid decisionmaking on—

- Medical capabilities assessment and sustainability analysis.
- Medical threat/intelligence.
- Combat casualty care.
- Medical logistics.
- Blood management.
- Patient movement.
- Manpower/training.

MAGTF COMMAND AND CONTROL CENTERS, AGENCIES, AND FACILITIES

The main MAGTF C2 center, agency, or facility for HSS is the MSOC. The MSOC is part of the combat operations center (COC) of the MLG. The MLG HSSO manages the MSOC. The COC is an agency within the LCE and subordinate units that control and coordinate the day-to-day operations. At the MLG, the COC is operated by the G-3/S-3. Within the ACE, these duties are performed by the G-4/S-4 at the Marine wing support group, Marine aviation logistics squadron, and MWSS levels.

The COCs are centrally organized around the functional areas of supply, health services, maintenance, engineer, transportation, and services. The COC controls the radio nets and has direct telephone lines to subordinate units, supported units, and higher headquarters.

CHAPTER 5

DENTAL SERVICE SUPPORT

The dental battalion, MLG, is organized and equipped to provide a full range of dental support to the MEF. In garrison, the dental battalion provides comprehensive care to the operating forces to maintain optimal dental readiness and health of deployable units. While deployed, dental service support detachments act as a force multiplier available to the commander maximizing the return of dental casualties to duty while sustaining the dental readiness and health of operational forces. Based on mission requirements, dental service support uses flexible, lightweight, and expeditionary dental equipment and provides task-organized dental detachments to support the dental care requirements of deployed units.

TENETS

Dental service support offers substantial operational dental support with particular attention to prevention, return to duty, scalability, and forward care.

Prevention

Prevention of disease and injury is the most resource-efficient means of maintaining health. Dental emergencies are minimized with the appropriate treatment and continuous individual oral hygiene.

Return to Duty

The primary objective of operational dentistry is to treat dental needs rapidly and return personnel to their unit without degradation of mission performance.

Scalable Dental Support

The dental battalion has C2 of all dental personnel in garrison and can deploy scalable, task-organized components providing dental support to any MAGTF.

Enhanced Forward Care

Enhanced forward care reduces time and resources required to evacuate an individual for dental care. Dental section detachments provide dental support as far forward as required. Each ADAL contains a subassembly dental unit that consists of two portable, dental lightweight load-carrying equipment backpacks that provide emergency dental care to a limited number of casualties before resupply from the ADAL (see app. B).

MARINE CORPS DENTISTRY

The primary mission is to ensure dental readiness and optimize the dental health of Marine forces. In an operational environment, dental will provide emergency dental care such as early treatment of severe oral and maxillofacial injuries and, when the mission allows, provide essential nonemergency care to include—

- Providing dental treatment as far forward as required to eliminate or reduce the effect of dental disease and injury on mission accomplishment.
- Preventing oral disease.
- Promoting dental health.

The secondary mission is to augment medical personnel. Dental officers assist in the planning and deployment of—

- Dental assets.
- Triage.
- Patient stabilization.
- Wound care.
- Forensic identification.

Dental technicians assist with the following:

- Triage.
- Patient stabilization.
- Wound care.
- Patient care.
- Dental forensic identification.
- Central sterilization duties and other ancillary duties related to their rate.

ORGANIZATION OF FIELD DENTAL SUPPORT

The dental battalion commander has additional duties as the MEF and MLG dental officer. As a special staff officer, he advises the MEF and MLG commanders on all professional, administrative, and personnel matters relating to dental readiness and support. The MEF and MLG dental officers review OPORDs and OPLANs, and recommend employment of available dental assets ensuring optimum use.

The field dental care system maintains the dental readiness of the deployed force by preventing and treating dental disease and injury. In order to accomplish this, dental support is based on a

task-organized, flexible structure that responds to rapidly changing conditions across the continuum of missions to provide the required level of dental care. This task-organized support is based on —

- Size of the unit supported.
- Length of deployment.
- Mission (stability operations, low intensity conflict, and war).
- Other dental support requirements.

Consistent with the tactical situation, the spectrum of dental care provided encompasses expedient emergency care to the full range of essential nonemergency care.

Dental Platoon-Ground

The dental platoon-ground consists of six dental officers, nine dental technicians, and six ADALs. This unit is the dental component of the LCE of the MEB. Though normally assigned to the surgical company, the dental platoon-ground can effectively function attached to another unit organic to the LCE and is able to provide transportation, facilities, and security support. The LCE exercises OPCON over the dental platoon-ground and is responsible for logistics and security support.

Dental Platoon-Air

The dental platoon-air consists of four wing detachments with one dental officer, two dental technicians, and one ADAL. This unit is attached to the MWSS and provides dental support to personnel assigned to the ACE. The ACE exercises OPCON over the dental platoon-air and is responsible for logistics and security support.

One dental platoon-ground and one dental platoon-air support a MEB level force and provide emergency and essential non-emergency dental support to approximately 8,000 to 12,000 personnel using ADALs, with enough supplies to support a defined patient stream for one month (estimated at 1,700 dental casualties).

Dental Section

The smallest module of dental support is a dental section, which consists of one dental officer, one dental technician, and one ADAL. The dental section is the dental component of the LCE of the MAGTF. The LCE exercises OPCON over the dental section and is responsible for all logistics and security support. The dental section provides emergency and essential nonemergency dental support to approximately 2,200 personnel using the ADAL to support a defined patient stream for one month (estimated at 175 dental casualties).

FIELD DENTISTRY

The primary objective of field dentistry is to provide dental treatment to an individual that is within the limitations of the tactical situation and to rapidly return them to duty. Treatment may range from temporary symptomatic relief to more definitive dental care. In all cases, the dentist

should maximize treatment in a single sitting to minimize return visits and lost duty time. This requirement places a great emphasis on the professional judgment of the practitioner and a need to reconcile patient needs with the tactical situation.

Field dentistry requires employment of the same fundamental skills and standards of practice as employed in a garrison clinic. The limitations imposed by available equipment and the tactical situation require flexibility, innovation, and expediency by the dentist and the technician.

Dental patients will occasionally require patient evacuation to higher levels of care. Depending on the tactical situation, the individual may require emergency treatment and expeditious return to duty with subsequent referral to higher levels of care when the tactical situation permits. When to evacuate, return to duty, and refer are matters of clinical judgment based on patient presentation.

Evacuation

Evacuation is the emergency transfer of a patient from a lower to a higher level of care using available evacuation assets and established evacuation procedures. This assumes that a patient is capable of performing the mission in an austere combat environment. Those individuals who are designated not fit for duty or who require pharmaceutical regimens that impair performance should not be returned to duty.

Referral

Referral is the nonemergency transfer of a patient from a dental treatment facility (DTF) for follow-up treatment when the tactical situation permits.

FIELD DENTAL EQUIPMENT

Marine Corps expeditionary dental systems are dental materiel sets designated by the ADAL 662 (see app. B). The ADAL consists of the dental expeditionary field equipment, instruments, consumables, and dental unit 2.

Every dental officer assigned to a deployed platform is assigned an ADAL. This equipment represents the latest in dental technology and is lightweight, compact, and rugged. The ADAL has limited power demand and is highly mobile. In addition to emergency dental care, it has the capability to provide essential, nonemergency restorative endodontic, periodontal, surgical, and preventive care. The ADAL 662 is the main equipment block that consists of—

- The operating and treatment unit.
- Field dental chair.
- Dental hand pieces.
- Operator and assistant stools.
- Assorted hand instruments and equipment.
- X-ray unit.
- Sterilizer.

The ADAL provides the capability to deliver limited emergency dental care in a highly mobile environment. It contains an initial supply of consumables to treat 34 patient conditions for a given patient stream for 30 days.

The dental unit 2 is a subassembly of the ADAL that contains basic equipment and consumable supplies to provide emergency dental care for a limited number of dental conditions and patients. This emergency dental kit is contained in two bags and contains the minimum instruments and materials required for simple extractions and expedient temporary restorations resulting from trauma or acute dental disease. The dental unit 2 is intended for use when the tactical situation precludes employment of the complete ADAL. For planning purposes, the dental unit 2 is configured to provide emergency care to 20 patients for 7 days.

Dental materiel sets are configured according to the level of dental care they are expected to support. Logistic concerns (i.e., weight, cube, power requirements, and lift support) are important configuration considerations in forward battlespace patient care, and a lesser consideration in those units to be employed farther in the rear. Standardization of the materiel within the dental materiel sets is consistent with Marine Corps policy and Class VIII(A) resupply requirements.

PATIENT CARE OPERATIONS

Once the field DTF is established, patient care operations are accomplished similar to in garrison DTFs; however, environment and tactical situations may influence whether definitive or temporary emergency treatment can be provided. The objective is to expeditiously return Service members to duty by attending to their dental needs.

Dental treatment facilities use SOPs that have been developed by the parent dental battalion and other cognizant higher authority that establish policy on such matters as patient flow, responsibilities, equipment operation and maintenance, safety directives, and other pertinent matters.

Deployment Log

A deployment log provides valuable information for unit after action reports and can be used by higher authority to validate manning, ADAL configuration, and training requirements. Deployed dental service support detachments maintain pertinent deployment information to include—

- Deployment start and end dates.
- Name of deployed unit.
- Number of personnel in the unit.
- Number of patient evacuations or days lost due to dental disease or injury.
- Patient information including the name and rank.
- Date and time of visit.

- Reason for the visit to include—
 - Diagnosis.
 - Treatment rendered.
 - Whether it was emergency or nonemergency care.
 - Whether treatment was for DNBI or battle injury.
- Daily nonemergency information to include—
 - Equipment/supply problems.
 - Medical combat skills data (i.e., involvement with triage, wound management, forensics, combat stress).
 - Other data deemed important for that deployment.

Patient Dental Record

The patient dental record is deployed with the unit when circumstances permit and is maintained by the dental service support detachment. The nature of large operations makes records control difficult resulting in many lost records. For such operations, if time and resources permit, dental battalions may deploy summary dental records in lieu of the complete dental treatment record.

A summary dental record consists of duplicates of the most recent health questionnaire, dental treatment entries from the last dental exam to the present, and the most recent bitewing and pantographic radiographs. The type and number of the summary dental record remains the discretion of the dental battalion commander.

If a patient without a dental treatment record is treated, a temporary record is created and maintained by the dental service support detachment. This temporary record consists of a health questionnaire, consent form, and a Standard Form EZ 603-A, Dental Continuation Form. The temporary record is incorporated into the patient's permanent dental treatment record when it becomes available.

Unit After Action Report

At the completion of the exercise or deployment, a unit after action report is prepared using the DTF, pertinent patient treatment, and deployment log information. The report is submitted through the chain of command according to applicable instructions. It is the primary source of information on the dental care provided to the supported unit. Additionally, this report leads to the improvement of dental care delivery to deployed units.

PREVENTIVE DENTISTRY

Dental health is the absence of dental disease and is the ultimate goal in dentistry. The incidence of dental disease increases under deployment conditions: stress, exhaustion, inadequate nutrition, and poor oral hygiene measures degrade dental health. The dental battalion uses a range of dental treatment and preventive programs to eliminate oral conditions that decrease performance and increase absence from duty in garrison and while deployed. Prior to deployment, deploying

personnel are given priority appointments to treat all urgent dental conditions. Dental prophylaxis and individual oral hygiene instruction are also provided to ensure every Marine has the knowledge and skills to maintain oral health. During deployment, dental service support provides ongoing dental treatment and preventive dentistry programs to identify and treat personnel that may be at risk for dental disease.

Field Oral Hygiene Instruction

Deployable personnel should receive additional oral hygiene instruction specific to the field environment. Concepts covered include—

- Importance of oral hygiene to combat fitness.
- Use of fluoridated toothpaste.
- Alternative methods of hygiene in the absence of garrison-type facilities.
- Procedures on how to seek dental services while deployed.

Infection Control

Infection control is a critical requirement in a field environment. The demands for proper infection control in the field are frequently greater than in garrison due to undesirable environmental conditions. Specific guidance found in BUMEDINST 6600.10A, Dental Infection Control Program, can be adapted to the field environment.

Infectious/Medical Waste Management

Proper handling and disposal of waste is required to protect the force and the environment, and to fulfill agreements with the host nation. The unit generating the waste will ensure proper collection and disposal. Assistance is available through the supporting engineer unit, the PVNTMED team, or the local MTF. Medical waste, such as blood, blood products, and surgical waste, are produced during dental procedures. Medical waste may be sterilized and disposed of along with general waste. Fluid wastes collected through oral evacuation apparatus should be disposed of along with human wastes. Contaminated needles and other sharp items requiring special handling should be stored in clearly marked, puncture-proof containers with a tight-fitting lid until disposal. Large quantities of medical waste should be collected in impervious containers if available, or double plastic bags as an alternative. Containers must be clearly marked with the universal biological hazard symbol or labeled consistent with the unit SOP.

Hazardous Waste

Dental service support normally generates small quantities of hazardous waste in the field environment that should be disposed of in a manner that minimizes environmental impact. Engineer personnel and PVNTMED can advise dental service support on the proper waste disposal.

ALTERNATE DENTAL SERVICE SUPPORT ROLES

Dental service support provides additional services that support the OPLAN in addition to providing dental services to the deployed units. Dental care is provided to operating forces and other designated beneficiaries (i.e., civilian, indigenous population, detainee, and EPW) in the AO.

Priority for treatment is based on command directives, the patient's medical/dental condition, availability of resources, negotiated agreements, and applicable laws and conventions.

Dental civic action projects are generally associated with nation assistance, but may also be requested in more conventional conflicts as part of the overall post-conflict civil affairs operations.

Dental augmentation can be called upon to assist HSS personnel in the triage, care, and evacuation of casualties during mass casualty operations.

Post mortem and forensic identification of casualty remains is not doctrinally an HSS mission; however, dental personnel are uniquely qualified to support such operations when needed in the identification process.

Military animals, particularly working dogs, are used in the AO and are subject to dental injuries, specifically fractured teeth. Dental officers may assist in the restoration or treatment of these injuries.

DENTAL SUPPORT OF MEDICAL TREATMENT FACILITIES DURING A MASS CASUALTY

Collective use of the dental service support in mass casualty situations may be advantageous when a dental unit is collocated with a surgical company or STP. Austere medical resources require maximum use of dental assets in preparing for mass casualty situations. When additional treatment space is required, use of the adjacent DTF is incorporated into the collective utilization option. The dental service support table of equipment supports the medical augmentation roles, particularly when treatment provided in the DTF is limited to minimal-category casualties. Detailed below is the assistance that may be provided.

Shelter

The DTF offers a climate-controlled shelter suitable for the conduct of patient treatment. This benefit significantly increases when the DTF is in or near the SC or STP.

Dental Equipment Sets

The ADAL contains materials and instruments such as anesthetic, scalpels, forceps, hemostats, suture material, and wire ligature, which are used to perform minor surgical procedures. Dental treatment facilities are equipped with simple medical and resuscitative equipment that provides basic cardiopulmonary resuscitation and treatment for other common medical emergencies.

Planning and Coordination

Upon arrival at a site collocated with an SC or STP, the DTF commander should coordinate with the surgical company commander on a plan for use of the DTF's resources in the event the SC is overwhelmed. Once a plan is established, it should be rehearsed at the earliest opportunity.

CHAPTER 6

PLANNING

Comprehensive planning is essential for any operation to succeed. The mechanics of HSS planning for MAGTF operations essentially follow the same course as planning processes for any other part of operational support. The mission assigned, commander's analysis and interpretation of the mission, and planning guidance issued by the commander to his staff form the parameters for HSS planning.

Health service support planning must be continuously directed toward accomplishing missions and tasks on a day-to-day basis, and must be flexible to a degree that will accommodate variations that may be imposed. Health service support planning must be accomplished with overall operational and logistic support planning. Development of an efficient plan for a MAGTF operation depends on the combined and coordinated efforts of all involved commanders and their staffs. Since MAGTF operations are inherently complex, plans at every level must provide complete, functional, and flexible support to the maximum degree consistent with available resources. A clear understanding of staff planning is based on knowledge of the characteristics, methods, and objectives of the overall operational planning process.

MARINE CORPS PLANNING PROCESS

The Marine Corps Planning Process establishes procedures for—

- Problem framing.
- Developing courses of action (COAs) against the threat.
- Wargaming the COAs using the enemy's most likely, most dangerous, and most advantageous (to friendly forces) COAs.
- Courses of action comparison and decision.
- Development of the OPORD or OPLAN based on the commander's selection.
- Transitioning the OPORD or OPLAN to those tasked with its execution.

The MCPP organizes these procedures into six manageable steps. These steps provide the commander and his staff a means to organize their planning activities and transmit plans to subordinates and subordinate commands, sharing a common understanding of the mission and commander's intent. (See MCWP 5-1 for further details.)

HEALTH SERVICE SUPPORT PLANNING RESPONSIBILITIES UNIQUE TO AMPHIBIOUS OPERATIONS

Because their plans are mutually supportive, detailed, coordinated, and parallel, planning is required between ATF and landing force surgeons. Landing force and ATF surgeons have specific HSS planning responsibilities (see JP 3-02, *Amphibious Operations*); these surgeons and their staffs should be familiar with these responsibilities.

Amphibious Task Force Surgeon

The ATF surgeon—

- Provides HSS for all embarked personnel between point of embarkation and the objective area.
- Coordinates for evacuation by ship or air from the AOA to medical facilities outside the objective area.
- Forms the evacuation policy for the operation in conjunction with the commander, landing force.
- Maintains medical liaison with US and foreign medical facilities ashore. This needs to be coordinated with US Department of State or US Office of Military Cooperation.
- Forms, in conjunction with the G-6, the medical regulating net.
- Advises as to the status and capabilities of HSS elements supporting the mission.
- Implements PVNTMED measures throughout the ATF.
- Provides oversight of the blood program.

Landing Force Surgeon

Landing force HSS plans must support and complement the plans and policies of the landing force. The landing force surgeon is responsible for the following and prepares plans accordingly:

- Provides HSS for the landing force before embarkation.
- Assists ships' medical departments in providing medical care for embarked landing force personnel.
- Supports the evacuation of casualties from the landing force area to the ATF during the assault phase and to and from the beach evacuation stations, once established.
- Provides HSS care for personnel ashore in the objective area.
- Makes recommendations to ATF commander concerning the evacuation policy for the operation.
- Identifies and requests external HSS to fulfill requirements beyond the capability of landing force HSS units.
- Coordinates the establishment of emergency treatment and casualty holding facilities ashore.
- Ensures continuity and interoperability of the medical regulating net to coordinate the movement of casualties after control passes to landing force commander.

SEQUENCE OF COMMAND AND STAFF PLANNING FOR HEALTH SERVICE SUPPORT

Health service support planning begins with the issuance of the commander's planning guidance to his staff. The commander's guidance includes his analysis of the mission, factors to be considered, and COAs to be analyzed. The MAGTF surgeon's staff participates in the COA development and wargaming of each COA. They also prepare a comprehensive estimate of HSS factors affecting mission accomplishment in light of each proposed COA. The HSS estimate provides the commander with a portion of the information considered in deciding the COA for the operation.

After considering and comparing each COA against established criteria and against each other, the commander selects the COA that best accomplishes the mission. Health service support planning continues in detail after the commander announces his decision and CONOPS. Much of the material included in the HSS plan will have been developed prior to preparation of the medical estimate. This material should be reviewed, refined, and updated as necessary.

Medical Estimate

The medical estimate requires significant research along with concurrent, parallel, and detailed planning. Effective planning cannot be conducted in a vacuum and requires thorough analysis and research decision planning. The medical estimate serves the following four purposes:

- Assesses medical capabilities and limitations.
- Determines if medical capabilities are sufficient to support the proposed COAs.
- Determines which COA is most desirable from a medical standpoint.
- Determines what measures the commander and his staff must take to overcome limiting factors.

The actual format used is directed by the cognizant G-3/S-3 and is based on guidance from higher headquarters. It is imperative that staff estimates and estimates of supportability are reviewed throughout the planning process. The estimates include the problem framing, COA development, COA war game, and the COA decision. (See MCWP 5-1 for details and sample staff estimate development.)

Decisions/Recommendations

The MAGTF surgeon prepares an HSS estimate on the proposed COA that provides analysis and identifies the advantages and disadvantages of each from a medical view. The MAGTF surgeon recommends a COA based on this analysis.

Health Service Support Concept of Operations

The commander considers the results of wargaming, examines the staff estimates, and determines a desired COA. At this point, the MAGTF surgeon develops an HSS plan and CONOPS to support the commander's decision. This plan contains information and instructions outlining HSS support requirements for the MAGTF during the operation. It is most often issued as Annex Q (Medical Services).

MEDICAL SERVICES ANNEX

The CONOPS for health services is in Annex Q (Medical Services) of the OPLAN and OPORD. The medical services annex contains information on HSS requirements during an operation, including deployment planning and external support requirements. Its purpose is to direct HSS efforts during the operation. The medical services annex compiles HSS requirements from sources external to the MAGTF and addresses elements of support requiring close coordination with other Services, Joint Chiefs of Staff, DOD, or host nations. The medical services annex sets policy, specific tasks and responsibilities, and directs the employment of medical assets organic to the MAGTF, GCE, ACE, and LCE from embarkation to D-day (unnamed day on which operations commence or are scheduled to commence) and beyond. Annex Q is normally prepared at MEF, MEB, and MEU levels. The completed medical services annex—

- States the HSS situation.
- States the evacuation policy.
- Delineates organization, responsibilities, and employment of HSS system elements, with emphasis on shifts in responsibilities during the operation and on measures necessary to ensure coordinated action by all HSS elements of the task force.
- Projects time-phased bed requirements and includes planned locations of facilities available to provide support and casualty overload plans.
- Provides plans on accessing HSS available from sources external to the MAGTF.
- Provides plans for HSS in conjunction with evacuation of casualties from AOA.
- Addresses HSS supply including prescribed load, replenishment of supplies, and exchange of equipment.
- Addresses procedures and responsibilities for recordkeeping and casualty reporting.
- Addresses provisions for HSS while afloat.
- Addresses procedures for obtaining medical intelligence.
- Identifies environmental health threats.
- Evaluates and plans appropriate responses to environmental and occupational health stressors.
- Ensures necessary environmental health controls are planned for and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, agricultural washdowns, and other necessary public health measures.
- Addresses PVNTMED, CBRN warfare medicine, dental, veterinary medicine, hygiene, and sanitation.
- Addresses procedures for obtaining and distributing Class VIII(B).
- Addresses responsibilities of US forces in rendering medical care to multinational forces, EPWs, and indigenous civilians.
- Addresses available HNS and types.

TRANSITION: PHASES OF EXPEDITIONARY OPERATIONS

Expeditionary operations include the full spectrum of Marine Corps operations including amphibious operations, MPF operations, and the deployment of an air contingency force. These operations can be divided into the following five phases:

- Predeployment.
- Deployment.
- Entry.
- Enabling and decisive actions.
- Redeployment.

Predeployment

Predeployment actions include the organization of the deployment to ensure that forces arrive in the objective area in a logical sequence, at the right time, and with the correct equipment and sustainment to support the CONOPS. Regardless of the deployment mode, predeployment preparation and deployment are complex undertakings that require the accomplishment of numerous tasks. In crisis response, the time available to accomplish these tasks is limited. Some HSS predeployment considerations are—

- Conducting predeployment health screening to ensure deploying personnel are fully medically ready.
- Staffing and training HSS components supporting the CONOPS.
- Maintaining HSS equipment and supplies in sufficient repair and quantity for the mission.
- Ensuring responsive resupply mechanisms are in place.
- Establishing liaison with all MAGTF, joint, and multinational components.
- Procuring and/or administering immunizations and medicines for endemic diseases.
- Identifying the availability of HNS, nongovernmental organizations, and international organizations.
- Training individuals through unit training in personal hygiene and field sanitation.
- Ensuring predeployment health threat briefs and health screening questionnaires are completed.
- Assisting medical units in completing predeployment requirements, specifically immunizations, and making preparations for embarkation of PVNTMED equipment.
- Ensuring that health service personnel organic to the MAGTF embark with their units.
- Ensuring mobile loading of BAS, STP, and FRSS equipment and supplies is accomplished to the maximum degree possible.
- Ensuring that spread loading HSS personnel and Class VIII materiel among ships of the ATF for amphibious operations is accomplished to the maximum degree practicable. However, this should not be accomplished at the expense of separating personnel from the equipment they will be using ashore. It is important that personnel of HSS elements embark on vessels carrying their parent unit's equipment and supplies.

- Ensuring all medical personnel, equipment, and supplies are registered on the JOPES time-phased force and deployment data.
- Spread loading medical personnel and supplies during deployment to ensure complete coverage.
- Disseminating military significant PVNTMED information to commanders and HSS units in the theater of operation.
- Conducting pre-site surveys and campsite selection recommendations.
- Providing technical oversight on food service operations and procurement.
- Providing oversight and testing at water points, bulk water storage areas, and the ice manufacturing process.
- Conducting pest surveillance and control.
- Maintaining environmental health and pest control equipment.
- Conducting weekly DNBI surveillance and reporting findings through the proper chain of command.
- Implementing necessary countermeasures to reduce or eliminate DNBI threats.
- Preparing medical situation reports as required.

Deployment

Deployment planning and execution are challenges for even the most experienced and skilled logisticians. Transportation modes vary depending on the size, purpose, and duration of deployment. Deployment of a MEF requires the use of all modes of transportation, including—

- Military or commercial ground transportation.
- Amphibious or commercial ships.
- Air mobility command or commercial charter airlift for personnel, supplies, and equipment.

Entry

Entry refers to the initial introduction of forces onto foreign soil where no prior presence exists. During this phase, expeditionary forces are often at greatest risk and the introduction of forces is often a complicated military evolution. The most difficult type of entry is forcible entry, which refers to the initial introduction of forces into a hostile environment via combat in the face of active resistance. Not all expeditionary operations require forcible entry, although it is unavoidable in the absence of any secure point of entry. Many expeditionary operations involve the introduction of forces into a permissive environment or an uncertain environment that has not yet turned hostile. There are situations in which a regional presence may accomplish the mission, although the perceived willingness and capability to introduce forces remains fundamental.

Amphibious Operations. An amphibious operation is a military operation launched from the sea by an amphibious force, embarked on ships or craft with the primary purpose of introducing a landing force ashore to accomplish the assigned mission (JP 1-02). The five phases of an amphibious operation are planning, embarkation, rehearsal, movement, and action. Sound planning provides a basis for successful execution. The HSS personnel should—

- Test the adequacy of HSS plans.
- Test regulating nets and medical C2 nets.

- Check individual readiness.
- Ensure that HSS personnel in all units are familiar with the HSS plans.

Maritime Prepositioning Force Operations. An MPF operation is the rapid deployment and assembly of a MAGTF in a secure area using a combination of strategic airlift, tactical self-deploying aircraft, and forward-deployed MPSs. Maritime prepositioning ships operations are a strategic deployment option that is global in nature, naval in character, and suitable for employment in a variety of circumstances. The essential strategic contribution of MPF operations is the mobility and flexibility that allows the concentration of forces quickly in a designated area.

Amphibious and MPF operations are complementary capabilities; however, one is not an equivalent substitute for the other. Amphibious operations provide the means for forcible entry, while MPF operations permit rapid deployment into permissive areas where force introduction is essentially unopposed and is expected to remain so throughout the arrival and assembly phase. Amphibious operations can be used in the same environment as MPF operations, but the reverse is not true.

Maritime prepositioning force operations involve airlifting MAGTF and Navy support element personnel into a host nation arrival and assembly area to join with equipment and supplies prepositioned aboard MPSs. Maritime prepositioning force includes the combination of prepositioned and airlifted materiel of a MEF with 30 days sustainment. Smaller MAGTFs may be sustained for a greater or lesser time depending on the size of the force and the number of MPSs involved. Health service support considerations include—

- Receiving, preparing, and distributing Class VIII.
- Providing first responder care upon landing.
- Identifying host-nation and inter-Service support.
- Coordinating the transport of personnel, equipment, and supplies.
- Inventorying equipment and supplies for serviceability.
- Identifying resupply sources.

Air Contingency Force Operations. Air contingency force operations are task-organized, air-deployable forces. An air contingency MAGTF consists of lead elements ready to deploy within hours of notification; these elements deploy to a secure area for subsequent employment. Air contingency forces can be used as part of the fly-in echelon of an MPF, as reinforcement for an amphibious force, or as the lead MEF element.

Enabling and Decisive Actions

Enabling actions refer to those preparatory actions taken by the expeditionary force after entry and establishment of the mission. Follow-on forces typically follow initial forces, which have undertaken enabling actions designed to set the stage for the eventual decisive actions. Enabling actions may include seizing a port, airfield, or other lodgment to facilitate the secure introduction

of follow-on forces. In cases of disaster or disruption, enabling actions usually involve the initial restoration of order or stability. In the case of open warfare, enabling actions may involve operations to halt or delay an enemy advance, attack certain enemy military capabilities, or to capture key terrain necessary for the conduct of decisive operations.

Decisive actions are those actions intended to create conditions that will accomplish the mission. In disasters, decisive actions include relief operations. In disruptions, they often include peacemaking and peacekeeping until local government control can be re-established. In conflict, they usually involve the military defeat of the enemy's fighting forces.

Redeployment

Because expeditions are temporary by definition, all expeditionary operations involve a departure of the expeditionary force or a transition to a permanent presence. Redeployment may be required by a change of mission, the assignment of additional missions within the theater or in another theater, or return to the base of origin. The MAGTF's organic sustainment and ability to quickly reorganize and reconstitute without having to first return to its home base or await establishment of a theater logistic infrastructure prior to employment make it unique.

Sustainment. The MAGTF's versatility stems from its naval, expeditionary character, which enables it to not only respond quickly to contingencies, but also to shift rapidly between missions in littoral regions of the world. The MAGTF has this capability even in the absence of a logistic infrastructure ashore and before resupply channels from CONUS have been established. The MAGTF's organic sustainment capability makes it capable of independent operations for periods of up to 60 days without resupply. Since the MAGTF is a lighter force capable of operating with a smaller footprint within an austere environment, it is more easily sustained, places less demand on lift, and simplifies the problems associated with redeployment.

Reconstitution. A MAGTF's endurance, based upon its accompanying sustainment and ability to maneuver at sea, make it ideally suited for reconstitution and redeployment out of theater within the limits of accompanying supplies. Commanders must ensure that requisitions for replenishment are submitted commensurate with anticipated lead times for delivery. Reconstitution in theater requires resupply to rebuild baseline levels of sustainment.

HEALTH SERVICE SUPPORT PLANNING CONSIDERATIONS

Evaluation of World War II, Korea, Vietnam, Operation Desert Storm, Operation Iraqi Freedom, and Operation Enduring Freedom data has led to development of the following maxims concerning combat HSS:

- Commanders at all levels are responsible for providing adequate and proper health care for their troops.
- Health service support plans can be effectively executed only if they are based upon realistic HSS capabilities.

- Health care for a patient must be continuous from the onset of injury or disease through the roles of care to the facility capable of providing final treatment and disposition.
- Casualty triage must occur at the point of injury and each medical facility in the chain of evacuation; patients are triaged at a receiving medical facility and moved rearward only to the point the patients can receive the definitive care dictated by their condition.
- Health service support units of the Marine Corps operating forces must retain the ability for rapid movement.
- Health service support units must be capable of being dispersed, for protection of assets, and to render the greatest service to the greatest number.
- Plans must be flexible to a degree that will ensure the mission can be accomplished despite changes in the tactical situation.
- Most casualties will occur within the infantry regiment; medical treatment and evacuation facilities must be situated accordingly.
- Increasing the evacuation policy increases requirements for HSS in the AOA increases, but reduces requirements for CASEVAC transportation and personnel replacements.
- Prompt triage, stabilization, and CASEVACs will result in increased numbers of lives saved and wounded returned to duty. It will also decrease numbers of non-effective days and reduce functional disability.
- The need for evacuation decreases when medical facilities are located in close proximity to forces in contact with the enemy.
- When a member cannot be returned to duty within the limits of the evacuation policy, they should be evacuated from the theater as quickly as their condition permits.
- Maintaining a continuous awareness of current DNBI rates and trends through disease surveillance at all levels is critical to effective prevention programs.

Maxims are offered for their potential usefulness to personnel tasked with HSS planning. Medical planners must be included throughout the entire planning process including current and future operations planning to ensure the development of effective and responsive HSS.

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CHAPTER 7

SUPPLY

Health service support supply encompasses the functions of procurement, initial issue, materiel management, resupply, and disposition of material necessary to support medical and dental elements organic to the Marine Corps operating forces. Requisitions for Class VIII(A) materiel follow the same channels as other classes of supply. Guidance for planning and procurement of Class VIII(B) is found in NAVMED P-6530, *Armed Services Blood Program Joint Blood Program Handbook*. (See app. C for the blood support program organizations). Class VIII(A) supply must not burden HSS facilities with excess material on the battlefield. Materiel managers must provide Class VIII(A) support that will enhance HSS units' ability to establish, displace, and rapidly relocate.

ALLOWANCES AND SOURCE OF SUPPLY

Medical and dental materiel support of the Marine Corps is the responsibility of the MAGTF commander and is provided in the following three general forms:

- Table of equipment.
- Authorized medical allowance lists and dental allowance lists.
- Normal replenishment supply support.

A unit's table of equipment includes items necessary for basic support of the organization. Examples of this type of equipment include—

- Tentage.
- Vehicles.
- Tools.
- Communications equipment.
- CBRN gear.
- Specialized clothing.
- Office equipment.

Authorized medical allowance lists/authorized dental allowance lists are specialized equipment and supplies allocated to medical and dental elements and cover capability for—

- Trauma management.
- Resuscitative surgery.

- En route care.
- Expeditionary laboratory.
- X-ray.
- Dental.
- Preventive medicine.
- CBRN treatment.
- Patient holding.
- Sick call.
- Health service support test and repair systems.

The total table of equipment and capability sets are designed to support the MEF for an estimated 60 days of combat. The MAGTF commander is responsible for ensuring that HSS capabilities are tailored to support the OPLAN. The AMALs/ADALs must be allocated to support specific OPLAN requirements. Funding for AMALs/ADALs above the authorized level is the budgetary responsibility of the MAGTF commander authorizing the increased allowance. A narrative description of AMALs/ADALS is contained in appendix B. MCWP 4-11.7, *MAGTF Supply Operations* provides more detailed information on MEF AMAL/ADAL requirements.

INITIAL CLASS VIII(A) COMBAT SUPPLY

All HSS elements of a MAGTF mount out with equipment and Class VIII(A) consumable items sufficient for a projected 15 days of combat support operations. Class VIII(A) equipment and consumables sufficient for three to five days are initially brought ashore by the personnel of unit medical and evacuation sections of the assault echelon. Vehicles, including ambulances, that are dedicated to HSS elements are combat loaded during mount out and used to bring initial Class VIII(A) equipment and supplies ashore. Equipment and supplies remaining afloat are phased ashore as scheduled or on demand with later waves of the assault echelon.

Rapid replenishment of high use critical items in the initial stages of the assault is accomplished by prepackaging these items into specialized rapid resupply blocks. As the need occurs for such specialized supplies, supported units submit requests through their landed unit supply section to the tactical logistics group. In order for this system to be effective, requirements for specialized rapid resupply blocks must be identified and the materials packaged prior to initial embarkation. Air delivery of emergency Class VIII medical supplies can be used where and when tactically supportable.

Health service support units mobile load as much of their equipment and supplies as possible. In addition to organic motor transport, HSS units may require additional motor transport support. This requirement should be identified and requested in the planning process.

Class VIII(A) resupply and repair capabilities carried by the LCE are landed during the general offload phase of an operation. Any supplies not issued should be available during the early stage of an operation.

Elements of the MEDLOG platoon, supply company, MLG, are attached to the LCE supply section to provide Class VIII(A) resupply and limited medical repair capabilities to all MAGTF HSS units.

Supporting HSS units can provide limited Class VIII medical resupply to other MAGTF HSS units on an emergency basis. This is in addition to the equipment exchange program.

INDIVIDUAL HEALTH SERVICE SUPPORT EQUIPMENT

All hospital corpsmen assigned to the Marine Corps operating forces are assigned a corpsman assault pack as part of their field gear. These kits may be held by the unit's organic supply section and issued on an as-needed basis. The organic supply section is responsible for ensuring that the contents of the corpsman assault pack are maintained in good condition and that medications have not exceeded their shelf life. Dental officers are issued a Unit 2, maintained by MEDLOG. All Marines and assigned Sailors are issued an individual first aid kit when deployed.

ROUTINE RESUPPLY

Resupply under all circumstances is a command responsibility. Health service support personnel needing resupply will forward the requirements to their unit's supply section. The supply section will pass the requirement to the supported activities supply system (SASSY) management unit (SMU) or, if deployed, the LCE supply section. It is the responsibility of the SMU/LCE to obtain the required material. In some cases, HSS personnel may be of assistance to the SMU/LCE supply officer by providing alternatives to the material or supply sources, such as different dosages or medical facilities of other Services in or near the AO.

COMBAT RESUPPLY

During embarkation planning, the MAGTF commander's surgeon and staffs will determine the number and type of AMALs/ADALs that are required to support the initial assault phase of the planned operation. Additional Class VIII(A) equipment and consumable material are positioned for mount out with the MEDLOG detachment within the supply section of the LCE. After the consumable AMAL/ADAL modules are issued and expended, or when directed, resupply is normally by line item requisition from the supporting LCE.

Under the patient movement items (PMIs) equipment exchange program, patients are evacuated with all available medical materiel items and chemical warfare protective gear in accordance with established theater operations policy. To ensure the necessary levels of PMIs are on hand, equipment exchange must be practiced at all levels in the chain of evacuation. Units receiving patients with blankets, litters, splints, and like items must replace these items for the transferring unit. Treatment facilities in the chain of evacuation are able to maintain an adequate number of such items only through an exchange system. Cognizant commanders should apply prompt corrective action at any point where the exchange system is failing.

Medical planners involved with patient evacuation systems of other Services ensure that other Service medical planners coordinate to provide initial and follow-on PMIs to support the equipment exchange. Prior liaison is essential in ensuring that incoming patient evacuation transportation is adequately equipped to handle the casualties and make PMI exchanges. In joint operations, the joint force commander may establish a theater equipment pool to reduce medical equipment shortfalls within theater. The theater equipment pool and HSS units work to resupply and/or refurbish critical PMIs so that they are available to meet patient movement requirements.

DISPOSAL OF MATERIALS

Disposal of soiled, contaminated, or other unusable Class VIII(A) material must be accomplished with due consideration for the safety of US forces and local civilian populations. Whenever operations allow, disposal must also be in compliance with local and international laws, ordinances, or customs governing such disposal. When disposal takes place in the US or its territories, Class VIII(A) disposal is coordinated with the local office of the Defense Reutilization and Marketing Office. Peacetime disposal overseas is coordinated under the guidance of the Defense Logistics Agency Disposition Services or LCE.

When the tactical situation permits during combat operations, the safest method of field disposal is burning, followed by deep burial (over 6 feet). The burial site should be a safe distance from watersheds and populated areas. Responsibility for neutralization and disposal of clothing, equipment, and dressings removed during CBRN decontamination processes resides with the major subordinate command CBRN officer.

Disposal of body parts and tissues obtained during operative or diagnostic procedures is accomplished in the same manner as used by local medical facilities. Alternative disposal by burning or deep burial requires prior authorization and specific guidance of higher authority. Prior coordination with local health authorities and religious leaders should be accomplished when possible.

PROTECTION OF MEDICAL SUPPLIES

Class VIII medical materiel and supplies are protected under the law of land warfare and the Geneva Conventions; however, when Class VIII medical materiel and supplies are mixed with combat supplies, they lose the protection afforded by these covenants. Marking medical materiel and supply storage areas with the Red Cross of the Geneva Conventions is a tactical decision made by the area commander. Geneva Conventions and the law of land warfare prohibit destroying medical materiel and supplies that must be abandoned in a retrograde movement occasioned by enemy action or other tactical consideration.

SINGLE INTEGRATED MEDICAL LOGISTICS MANAGER

When two or more Services are operating within the combatant commander's area of responsibility, a Service may be designated as the single integrated medical logistics manager (SIMLM). The SIMLM system encompasses the provision of Class VIII medical supplies, medical equipment maintenance and repair, Class VIII(B) blood management, and optical fabrication to all joint forces within the theater of operations including, on an emergency basis, USN ships for common-use items.

By exercising directive authority over the health service logistic support arena for the accomplishment of assigned missions, the combatant commander can centralize control, reduce duplication of services, and provide the support in a more economical and efficient manner. It is the combatant commander's responsibility to ensure coordination occurs among the Services' health service logistic systems so that critical health service logistic resources are properly allocated and medical materiel requirements are accurately stated. The SIMLM assumes responsibility for planning and executing the health service logistic support mission for common-use medical items in that area of responsibility. Until the SIMLM is established and operational, Service components are required to resupply their respective units. This will usually occur no earlier than D+60.

Although the US Army may be designated as the SIMLM in future missions because of a larger commitment of ground forces, each Service should devise plans in the event they are designated the SIMLM.

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CHAPTER 8

CASUALTY REPORTING

The G-1/S-1 section is responsible for submitting prompt, accurate, and complete casualty reports to higher headquarters. The Marine Corps Wounded, Ill, and Injured Tracking System is utilized for casualty tracking purposes. In combat operations, casualty tracking information can be obtained from the Role 3 via the United States Transportation Command Regulating and Command and Control Evacuation System (TRAC2ES).

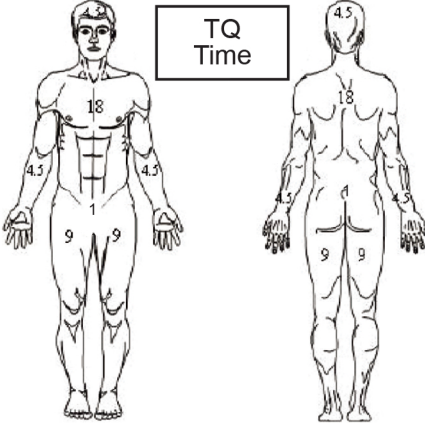
The TRAC2ES provides a responsive communications system essential to the conduct of patient movement. This Web-based patient tracking system maximizes the internet while maintaining and protecting patient privacy and troop strength information. This system replaced the defense medical regulating information system [DMRIS], Automated Patient Evacuation System [APES], and theater Army medical management information system [TAMMIS] medical regulation module. The TRAC2ES provides global support throughout the full operational medical continuum: fixed and deployable MTFs and global and theater patient movement requirement centers. The TRAC2ES links Global Patient Movement Requirements Center and TPMRCs through global communications.

Personnel must be thoroughly familiar with casualty reporting procedures. Marine Corps Order P3040.4E, *Marine Corps Casualty Procedures Manual (MARCORCASPROC MAN)*, and other local directives in the 3040 series address casualty reporting. The system described in these directives is essentially one in which personnel losses, regardless of cause, are reported through the chain of command to a central location.

TACTICAL COMBAT CASUALTY CARE CARD

Hospital corpsmen at the unit level usually provide the first written information on a casualty through the use of a tactical combat casualty care card (see fig. 8-1 on page 8-2). It is actually a casualty tag printed in a set that provides a hardened original copy for attaching to the casualty, whether wounded or deceased. A carbon copy is retained by the HM rendering initial treatment. Hospital corpsmen must render initial casualty treatment promptly and deliver copies of TCCC cards to the unit commander or his representative. Unit commanders must have these documents in order to carry out their casualty reporting responsibilities, as required by MCO P3040.4E.

When initial casualty treatment is rendered at point of injury, a BAS, or other role of care, a TCCC card is initiated and a copy forwarded through the facility's chain of command. Regardless of

Front	Back																									
Name/Unit _____ DTG: _____ Allergies: _____ Friendly Unknown NBC	A: Intact Adjunct Cric Intubated B: Chest Seal NeedleD ChestTube C: TQ Hemostatic Packed PressureDrsg																									
	FLUIDS: IV IO NS / LR 500 1000 1500 Hextend 500 1000 Other: _____																									
GSW BLAST MVA Other _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">TIME</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>AVPU</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PULSE</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RESP</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BP</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	TIME					AVPU					PULSE					RESP					BP					DRUGS (Type / Dose / Route): PAIN ABX OTHER _____ _____ _____ _____ _____ First Responder's Name _____
TIME																										
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DA Form 7656

Figure 8-1. Tactical Combat Casualty Care Card.

whether a casualty is received in a facility with or without a TCCC card, the receiving facility will compile a casualty list and forward the list upward through the facility's chain of command. The casualty list is prepared no less than once daily and should show each casualty received, held, evacuated, or returned to duty during the reporting period. At a minimum, the information that is required on each casualty includes the following:

- Name.
- Social security number.
- Rank.
- Unit.
- Brief description of wound/injury/disease.
- Actual or expected disposition.

Training and planning for operations should include instructions in casualty reporting procedures for all MAGTF elements.

The TCCC card establishes patient accountability and provides a means to document assessment of condition and treatment rendered by HSS personnel. The TCCC card is to be used as an

emergency medical tag for all casualties at the time they are initially treated in the field or field medical facility. Completion of a TCCC card initiates an important medical record that will follow the casualty through the roles of care. At the same time, it is an administrative document that may contain the most dependable information a commanding officer may have regarding a casualty in his unit. Our NATO [North Atlantic Treaty Organization] allies, by formal agreement, use TCCC cards containing the same essential information as recorded on the US card. Medical personnel must be trained in the preparation and use of this form. The following general guidelines apply:

- Upon rendering treatment, HSS personnel will tag all casualties with TCCC card.
- Careful preparation of each TCCC card is essential and special attention must be given to recording time, medications, and treatment administered.
- The TCCC card remains attached to the casualty until he reaches his ultimate destination in the chain of evacuation or until a clinical record has been established.
- Treatment administered by different levels of medical care is recorded on the previously attached TCCC card.
- If all space on the original card has been utilized, an additional card is prepared and attached to the casualty. The original TCCC card is not removed when an additional card(s) is attached.
- Upon the establishment of a clinical record for the casualty, the TCCC card becomes part of the clinical record.
- If the patient requires decontamination, the contaminated TCCC card is transcribed onto a clean form.

IDENTIFICATION TAGS

Identification tags are essential to casualty identification and recording. Each member is issued a chain and two tags to be worn at all times. The tags contain the member's name, social security number, blood type, Service component, and religion or sect.

The member and his/her unit are jointly responsible for ensuring that all information is current and accurate. The BUMEDINST 6150.35, *Medical Warning Tag*, contains information on medical warning tags.

Both identification tags remain with a casualty at all times unless the Service member is buried in a combat area. One tag is attached to the grave marker and the other remains with the deceased. Detailed procedures for handling deceased personnel are found in JP 4-06, *Mortuary Affairs*.

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APPENDIX A

GENEVA CONVENTIONS

The conduct of armed hostilities on land is regulated by the law of land warfare. The law of land warfare is derived from two principal sources: custom and lawmaking treaties such as The Hague Conventions of 1899 and 1907 and the Geneva Conventions of 12 August 1949. The rights and duties set forth in these conventions are part of the Supreme Law of the Land. A violation of any of these is a serious offense. This appendix addresses provisions of the Geneva Conventions as they may apply within HSS organizations of Marine Corps operating forces.

BACKGROUND

A Diplomatic Conference for the Establishment of International Conventions for the Protection of Victims of War was convened by the Swiss Federal Council from 21 April to 12 August 1949. The working documents of this conference formed the 1949 Geneva Conventions. The four Geneva Conventions established were—

- Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field.
- Geneva Convention (II) for the Amelioration of the Condition of the Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea.
- Geneva Convention (III) relative to the Treatment of Prisoners of War.
- Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War.

Under the Geneva Conventions, the signatories established the principle of disinterested aid to all victims of war without discrimination to those who—through wounds, capture, or shipwreck—are no longer enemies but merely suffering and defenseless human beings. With the additional protocols accepted and signed in 1977, the Geneva Conventions established the manner in which the victims of war are treated. The Geneva Conventions also established standards of conduct for medical and religious personnel assigned to aid the victims.

For detailed study of the principles of the Geneva Conventions, refer to the International Committee of the Red Cross Web site, <http://www.icrc.org>. The United States is a signatory to the Geneva Conventions of 1949 and has directed its military forces to abide by the articles.

IDENTIFICATION OF MEDICAL UNITS, FACILITIES, AND VEHICLES

In accordance with the Geneva Convention (I, ch.VII, article 38),

As a compliment to Switzerland, the heraldic emblem of the red cross on a white ground, formed by reversing the Federal colours, is retained as the emblem and distinctive sign of the Medical Service of armed forces. Nevertheless, in the case of countries which already use as emblem, in place of the red cross, the red crescent or the red lion and sun on a white ground, those emblems are also recognized by the terms of the present Geneva Conventions. (I, ch. VII, art. 38)

Although not recognized by the Geneva Conventions, Israel uses the red Star of David on a white background to identifying medical units, facilities, and vehicles (see fig. A-1).

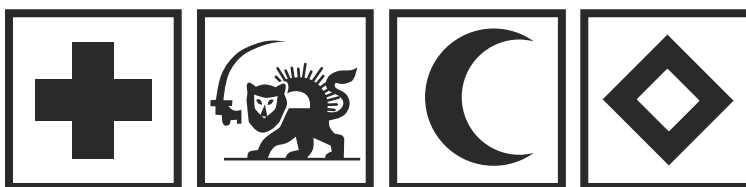


Figure A-1. Emblems Identifying Medical Units, Facilities, and Vehicles.

For purposes of identification, medical facilities include nonpatient care areas, such as those used for dining, maintenance, and administration of medical units. A unit commander may, at his discretion, elect not to mark medical facilities. Should a commander decide to deploy medical facilities that are not marked in accordance with the articles of the Geneva Conventions, he runs the risk of losing the protection afforded by the Geneva Conventions. Commanders must consider this matter in planning operations.

MEDICAL PERSONNEL

Medical personnel that are exclusively engaged in the search for, the collection, transport, or treatment of the wounded or sick, or in the prevention of disease, staff exclusively engaged in the administration of medical units and establishments, as well as chaplains attached to the armed forces, shall be respected and protected in all circumstances. (I, ch. IV, art. 24)

Members of the armed forces specially trained for employment, should the need arise, as hospital orderlies, nurses or auxiliary stretcher-bearers, in the search for or the collection, transport or treatment of the wounded and sick shall likewise be respected and protected if they are carrying out these duties at the time when they come into contact with the enemy or fall into his hands. (I, ch. IV, art. 25)

[Medical personnel] shall wear, affixed to the left arm, a water-resistant armlet bearing the distinctive emblem, issued and stamped by the military authority.... In addition, [medical personnel] shall also carry a special identity card bearing the distinctive emblem. (I, ch. VII, art. 40)

For US military personnel, DD [Department of Defense] Form 1934, *Geneva Conventions Identity Card*, is used.

[Medical personnel and chaplains,] who fall into the hands of the adverse Party, shall be retained only in so far as the state of health, the spiritual needs and the number of prisoners of war require. Personnel thus retained shall not be deemed prisoners of war. Nevertheless, they shall at least benefit by all the provisions of the Geneva Convention relative to the Treatment of Prisoners of War of August 12, 1949. Within the framework of the military laws and regulations of the Detaining Power, and under the authority of its competent service, they shall continue to carry out, in accordance with their professional ethics, their medical and spiritual duties on behalf of prisoners of war, preferably those of the armed forces to which they themselves belong. They shall further enjoy the following facilities for carrying out their medical or spiritual duties:

They shall be authorized to visit periodically the prisoners of war in labor units or hospitals outside the camp. The detaining power shall put at their disposal the means of transport required.

In each camp, the senior medical officer of the highest rank shall be responsible to the military authorities of the camp for the professional activity of the retained medical personnel. For this purpose, from the outbreak of hostilities, the Parties to the conflict shall agree regarding the corresponding seniority of the ranks of their medical personnel, including those of the societies designated in Article 26. In all questions arising out of their duties, this medical officer, and the chaplains, shall have direct access to the military and medical authorities of the camp who shall grant them the facilities, they may require correspondence relating to these questions.

Although retained personnel in a camp shall be subject to its internal discipline, they shall not, however, be required to perform any work outside of their medical or religious duties. (I, ch. IV, art. 28)

Personnel whose retention is not indispensable by virtue of the provisions of Article 28 shall be returned to the Party to the conflict to whom they belong, as soon as a road is open for their return and military requirements permit.... On their departure, they shall take with them the effects, personal belongings, valuables and instruments belonging to them. (I, ch. IV, art. 30)

In accordance with Geneva Convention I (ch. IV, art. 28) and II (art. 10, par. 2), persons engaged in medical activities shall not be compelled to perform acts or to carry out work contrary to the rules of medical ethics or to other medical rules designed for the benefit of the wounded and sick or to refrain from performing acts or from carrying out work required by those rules and provisions.

WOUNDED AND SICK IN THE FIELD

Members of the armed forces and other designated persons who are wounded or sick shall be respected and protected in all circumstances. They shall be treated humanely and cared for by the Party to the

conflict in whose power they may be. There shall not be any adverse distinction founded on sex, race, nationality, religion, political opinions, or any other similar criteria.... Only urgent medical reasons will authorize priority in the order of treatment to be administered.... The party to the conflict that is compelled to abandon wounded or sick to the enemy shall, as far as military considerations permit, leave with them a part of its medical personnel and material to assist in their care. (I, ch. II, art. 12)

Subject to the provisions of Article 12, the wounded and sick of a belligerent who fall into enemy hands shall be prisoners of war, and the provisions of international law concerning prisoners of war shall apply to them. (I, ch. II, art. 14)

Parties to the conflict shall record as soon as possible, in respect of each wounded, sick, or dead person of the adverse Party falling into their hands, any particulars that may assist in his identification. (I, ch. II, art. 16)

WOUNDED, SICK, AND SHIPWRECKED AT SEA

Members of the armed forces ... who are at sea and who are wounded, sick or shipwrecked, shall be respected and protected in all circumstances, it being understood that the term "shipwreck" means shipwreck from any cause and includes forced landings at sea by or from aircraft. (II, ch. II, art. 12)

Should fighting occur on board a warship, the sick-bays shall be respected and spared as far as possible. (II, ch. III, art. 28)

MEDICAL FACILITIES AND MATERIAL

Fixed establishments and mobile medical units of the Medical Service may in no circumstances be attacked, but shall at all times be respected and protected by the Parties to the conflict. Should they fall into the hands of the adverse Party, their personnel shall be free to pursue their duties, as long as the capturing Power has not itself ensured the necessary care of the wounded and sick found in such establishments and units. (I, ch. III, art. 19)

The protection to which fixed establishments and mobile medical units of the Medical Service are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy. (I, ch. III, art. 21)

The material of mobile medical units of the armed forces which fall into the hands of the enemy shall be reserved for the care of wounded and sick. The buildings, material, and stores of fixed medical establishments of the armed forces shall remain subject to the laws of war, but may not be diverted from their purpose as long as they are required for the care of wounded and sick.... The medical material and stores maintained to support the medical facilities shall not be intentionally destroyed. (I, ch. V, art. 33)

Transports of wounded and sick or of medical equipment shall be respected and protected in the same way as mobile medical units. (I, ch.VI, art. 35)

Medical aircraft, that is to say, aircraft exclusively employed for the removal of wounded and sick and for the transport of medical personnel and equipment, shall not be attacked, but shall be respected by the belligerents, while flying at heights, times, and on routes specifically agreed upon between the belligerents concerned.... Medical aircraft shall obey every summons to land. In the event of a landing thus imposed, the aircraft with its occupants may continue its flight after examination, if any. In the event of an involuntary landing in enemy or enemy-occupied territory, the wounded and sick, as well as the crew of the aircraft shall be prisoners of war. (I, ch. VI, art. 36)

HOSPITAL SHIPS

In accordance with the Geneva Convention (II, chapter III, articles 22 and 30), military hospital ships may under no circumstances be attacked or captured, but shall at all times be respected and protected, on condition that their names and descriptions have been notified to the Parties to the conflict ten days before those ships are employed. Military hospital ships cannot be used for any military purpose.

The protection to which hospital ships and sick-bays are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy.... In particular, hospital ships may not possess or use a secret code for their radios or other means of communication. (II, ch. III, art. 34)

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APPENDIX B

AUTHORIZED MEDICAL AND DENTAL ALLOWANCE LISTS

Health service support AMALs and ADALs are arranged in a modular concept. The equipment module contains equipment and reusable materiel required to establish the basic function of the module, e.g., an operating room. The supply module contains consumable material designed to support the function in the treatment of a designated number of casualties or to perform a specific task. For readiness purposes, an equipment module may be stored in combination with its corresponding supply module. The AMALs/ADALs are maintained and resupplied by MEDLOG platoon, supply company, MLG. Each AMAL that has a consumable block has a ratio of one set of equipment per two sets of consumables with the exception of the FRSS, which has a 1:5 ratio. The AMALs/ADALs number and nomenclatures are described below in table B-1.

Table B-1. Authorized Medical and Dental Allowance Lists.

AMAL	Nomenclature
618– Laboratory Equipment	Equipment and reusable materiel to establish a laboratory capable of hematology, microbiology, urinalysis, collecting, and chemistry testing.
619– Laboratory Supply	Consumable supplies to perform hematology, microbiology, urinalysis, and chemistry testing for 100 patients.
627–X-ray Equipment	Equipment, consumable supplies, and reusable materiel to establish one X-ray suite.
631–Shock Surgical/Triage Equipment	Equipment and reusable materiel to establish a basic shock trauma surgical team or triage supporting the receipt, resuscitation, sorting, and temporary holding of casualties.
632–Shock Surgical Team/Triage Supply	Consumable supplies required to receive, resuscitate, sort, and temporarily hold 50 casualties with major wounds.
633–Acute Care Ward Equipment	Equipment and reusable materiel to establish a 10-bed unit providing care for patients.
634–Acute Care Ward Supply	Consumable supplies to provide ward support for 100-bed days to patients.
635–Battalion Aid Station Equipment	Equipment and reusable materiel required to support one division, wing, group, or engineer BAS.
636–Battalion Aid Station Supply	Consumable supplies to provide aid station support, initial resuscitative and stabilizing care for 50 casualties with major wounds prior to evacuation and resupplying basic line corpsmen.
637–Preventive Medicine Maneuver.	Designed for an HM 8404 trained as a preventive medicine representative.
638–Preventive Medicine Technician	Designed for a preventive medicine technician (HM 8432) to perform technical preventive medicine functions.
639–Operating Room Equipment	Equipment and reusable materiel required to support one operating room for performance of major surgical procedures, administering general anesthesia, sterilizing, and maintaining sterile materiel.

Table B-1. Authorized Medical and Dental Allowance Lists—Continued.

AMAL	Nomenclature
640—Operating Room Supply	Consumable supplies required to provide operating room support for 25 surgical cases.
645—FRSS	Equipment, consumable supplies, and reusable materiel required to care for 18 patients in a 48 hour period.
646—FRSS Resupply	Equipment and consumable supplies required to reconstitute the FRSS suite.
647—ERCS	Equipment, consumable supplies, and medical treatment protocols necessary for the medical management of two critically injured/ill, but stabilized, patients during transport aboard Marine Corps aircraft from elements ashore to elements at sea or ashore.
648—CASEVAC	Provides the equipment and consumables required to conduct en route care for two critically injured/ill, but stabilized patients within the ACE.
650—Preventive Medicine OEHS	Provides the equipment and consumables required to conduct industrial hygiene functionality and environmental health assays.
651—Preventive Medicine ENTO	Provides equipment and consumables required to conduct entomology functionality.
652—CBIRF	Provides the equipment and consumables required to provide care to military and civilian casualties from a chemical, biological, radiological, nuclear or high-yield explosives incident in CONUS and OCONUS.
660—MARSOC	Provides the equipment and consumables required to provide initial resuscitative and stabilization capability for a MARSOC unit.
685—GEO Mission/Cold Weather	Consumable supplies and reusable materiel to accommodate special mission/geographic related requirements into areas where cold-related injuries are likely to occur.
686—GEO Mission/Hot Weather Supplement	Consumable supplies and reusable materiel to accommodate special mission/geographic related requirements into areas where heat-related injuries are likely to occur.
687—GEO Mission/CBRN Individual	Materiels required for the individual to conduct primary decontamination and treatment in a CBRN environment.
688—GEO Mission/CBRN Unit	Materiels required for the units to conduct primary and secondary decontamination and treatment in a CBRN environment.
691—MEDLOG Test/Repair Equipment	Equipment and reusable materiel to perform testing, calibration, and 3d and 4th echelon maintenance of medical/dental equipment.
692—MEDLOG Test/Repair Supply	Consumable supplies to accommodate a medical repair section in the testing, calibrating, and intermediate maintenance of medical/dental equipment.
699—Sickcall	Medical materiel to provide essential treatment for DNBIs during routine sick call for 300 deployed Marine Corps forces for 30 days. This AMAL provides the sick call capability for a BAS and will usually be deployed with the BAS AMALs.
662—Field Dental Operator	Equipment and reusable materiel establishing a field dental clinic. Consumable supplies providing emergency, diagnostic, preventive, and maintenance dental support for 400 patients.

Legend

CBIRF	chemical-biological incident response team
ENTO	entomologist
GEO	geosynchronous Earth orbit
MARSOC	United States Marine Corps Forces, Special Operations Command
OEHS	occupational and environmental health surveillance

APPENDIX C

BLOOD PROGRAM SUPPORT ORGANIZATIONS

The Navy and Marine Corps provide medical treatment both afloat and ashore. The first responder is the hospital corpsman or the medic. Forward resuscitative care is performed ashore by the FRSSs and surgical companies. Forward resuscitative care afloat is provided by the amphibious assault ships (LHA and LHD class). Theater hospitalization care is provided by the EMF and T-AH Class VIII(B) blood capabilities are listed below:

- The hospital corpsman is capable of moving blood far forward to be transfused, provided that the proper transport container is used and the cold chain is preserved. Only group O red blood cells (RBCs) – type O, Rhesus factor (Rh) positive or negative – are used.
- The FRSS is capable of storing type O packed red blood cells (PRBCs) in a field blood refrigerator. Emergency collection capability exists if stored supply is exhausted. No blood bank testing is available.
- The SC is capable of storing 120 units of type O PRBCs in a field blood refrigerator. Emergency collection capability exists if stored supply is exhausted. No blood bank testing is available.
- The LHA/LHD ships are capable of carrying 400 frozen RBCs and 25 fresh frozen plasma (FFP) for contingency operations, and 950 frozen RBCs and 50 FFP for mobilization. The EMF is capable of holding 90 units of liquid RBCs. Specific requirements are established per mission. Emergency collection capability exists if stored supply is exhausted.
- Hospital ships are capable of carrying 2,375 frozen RBCs and 100 FFP for contingency operations, and 2,850 frozen RBCs and 120 FFP for mobilization.

ARMED SERVICES BLOOD PROGRAM OFFICE

The Armed Services Blood Program Office (ASBPO) manages the blood program for the DOD and is subject to the authority, direction, and control of the Secretary of Defense through the Assistant Secretary of Defense for Health Affairs and OPCON of the Joint Chiefs of Staff.

JOINT BLOOD PROGRAM OFFICE

The joint blood program office (JBPO) is responsible for the joint blood program management in a theater of operations. The JBPO functions as part of the unified command surgeon's office, but may establish an area joint blood program office (AJBPO) for regional blood management. The JBPO—

- Supports the unified command surgeon or augments the commander, JTF surgeon's staff.
- Is the central point of contact to ASBPO.
- Coordinates joint blood products requirements and capabilities in the theater of operations.
- Coordinates requirements, distribution, and facilities. It is the JBPO's responsibility to ensure blood is where it is needed. This includes determining how to get blood and blood products to forward units, ships, and MTFs.
- Monitors shortfalls for blood products and supplies for blood collection, deglycerolization, and transfusion.
- Ensures readiness throughout the distribution system through exercises and training.
- Ensures compliance with Armed Service Blood Program policies, Food and Drug Administration regulations, and American Association of Blood Banks standards in peacetime, during contingencies, and during wartime.
- Performs as the unified command subject matter expert in determining blood requirements.
- Provides the blood concept, coordinates with logistics, transportation, and communication personnel on the joint staff for the unified command and prepares Appendix 2, Joint Blood Program, to Annex Q (Medical Services) of the OPLAN/OPORD.

The AJBPO, when established by the JBPO, coordinates requirements and distribution of all blood products to support the blood supply unit (BSU) and MTFs in a specific area, regardless of the Service component. Not all operations will require the establishment of the AJBPO.

ARMED SERVICES WHOLE BLOOD PROCESSING LABORATORY

The Armed Services Whole Blood Processing Laboratories (ASWBPL) is a USAF-managed, tri-Service staffed, central repository for blood required in contingencies and wartime. The ASWBPL release blood to unified commands on approval by ASBPO. Theater units may not go directly to ASWBPL for blood. The Armed Services Whole Blood Processing Laboratory East distributes blood to the East and ASWBPL West distributes blood to the Pacific. These ASWBPL—

- Retype blood for blood typing system and Rh only.
- Pack and prepare blood for shipment to the theater.
- Maintain a peacetime inventory of 250 units of liquid blood for use as a rapid response requirement.

BLOOD TRANSSHIPMENT CENTERS

Blood transshipment centers (BTCs) serve as the central receiving point in theater for blood shipments from ASWBPL and for issue to the BSUs. A BTC can store and process up to 7,200 units of blood daily. United States Air Force personnel located at a major airhead usually operate them. Theater blood products are managed by the JBPO or AJBPO. Blood transshipment centers—

- Inspect blood received from the ASWBPL.
- Receive, store, and ice blood and perform quality control.
- Issue blood to BSUs or other theater blood users.

The Navy or Marine Corps must arrange transportation to obtain blood from BTCs. Blood issued to the Navy and Marine Corps is based on a daily allocation system established by the theater.

BLOOD SUPPLY UNITS

Blood supply units are responsible for receiving, storing, and distributing Class VIII(B) within the theater of operations. They are required to provide a five-day storage supply of Class VIII(B), based on proposed requirements to the theater and blood reports. Blood supply units can be identified to provide support in a specific geographical area, regardless of Service components. The following facilities can serve as BSUs: Army blood platoon, Navy EMF, naval CRTSs, T-AHs, MTFs, and blood product depots. Blood supply units—

- Receive, store, and distribute Class VIII(B) to supported facilities.
- Provide a five-day supply of Class VIII(B), based on requirements to the theater.
- Provide storage capabilities that maintain temperature requirements for liquid blood.
- Produce ice for shipping and re-icing of blood in theater.
- Store frozen blood products including FFP and frozen RBCs.
- Supply Class VIII(B) to MTFs based on the following authorized blood use:
 - *First responder:* Blood can be taken far forward with hospital corps personnel or medic, provided that the proper transport container is used. Only group O RBCs (Rh positive/negative) are used in this situation.
 - *Role I:* Group O RBCs only (Rh positive/negative); FFP, resuscitation fluids (i.e., ringers lactate and human albumin) are available.
 - *Theater hospitalization:* Group and type specific cells and FFP, as well as resuscitation fluids, are available.

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GLOSSARY

Acronyms

ACE	aviation combat element
AC/S.....	Assistant Chief of Staff
ADAL	authorized dental allowance list
AFOE	assault follow-on echelon
AJBPO	area joint blood program office
AMAL.....	authorized medical allowance list
AO.....	area of operations
AOA.....	amphibious objective area
ASBPO.....	Armed Services Blood Program Office
ASWBPL	Armed Services Whole Blood Processing Laboratories
ATF	amphibious task force
BAS.....	battalion aid station
BSU.....	blood supply unit
BTC.....	blood transshipment center
BUMEDINST	Bureau of Medicine and Surgery instruction
C2.....	command and control
CASEVAC.....	casualty evacuation
CATF	commander, amphibious task force
CBRN.....	chemical, biological, radiological, and nuclear
CIS	communications and information systems
CLB.....	combat logistics battalion
CLR.....	combat logistics regiment
CLS	combat lifesaver
COA	course of action
COC	combat operations center
CONOPS.....	concept of operations
CONUS.....	continental United States
CRTS	casualty receiving and treatment ship
DASC.....	direct air support center
DNBI.....	disease and nonbattle injury
DOD.....	Department of Defense
DTF	dental treatment facility
EMF	expeditionary medical facility
EPW	enemy prisoner of war

ERC	en route care
ERCS	en route care system
FDPMU	forward-deployable preventive medicine unit
FFP	fresh frozen plasma
FHP	force health protection
FRC	forward resuscitative care
FRSS	forward resuscitative surgery system
FST	fleet surgical team
G-1	assistant chief of staff, personnel
G-2	assistant chief of staff, intelligence
G-3	assistant chief of staff, operations
G-4	assistant chief of staff, logistics
G-6	assistant chief of staff, communications system
GAS	group aid station
GCCS	Global Command and Control System
GCE	ground combat element
GS	general support
H&S	headquarters and service
HM	hospital corpsman
HNS	host-nation support
HSAP	Health Services Augmentation Program
HSS	health service support
HSSE	health service support element
HSSO	health service support officer
HQ	headquarters
ICU	intensive care unit
JBPO	joint blood program office
JOPEs	Joint Operation Planning and Execution System
JP	joint publication
JTF	joint task force
LCE	logistics combat element
LFSP	landing force support party
LHA	amphibious assault ship (general purpose)
LHD	amphibious assault ship (multipurpose)
LPD	amphibious transport dock
LSD	dock landing ship
MACG	Marine air control group
MAG	Marine aircraft group
MAGTF	Marine air-ground task force
MARDIV	Marine division

MARFOR	Marine Corps forces
MARFORCOM	United States Marine Corps Forces Command
MARFORPAC	United States Marine Corps Forces, Pacific
MARFORRES	United States Marine Corps Forces Reserve
MAW	Marine aircraft wing
MCO	Marine Corps order
MCPP	Marine Corps Planning Process
MCRP	Marine Corps reference publication
MCWP	Marine Corps warfighting publication
MEB	Marine expeditionary brigade
MEDEVAC	medical evacuation
MEDLOG	medical logistics
MEF	Marine expeditionary force
MEU	Marine expeditionary unit
MLG	Marine logistics group
MPF	maritime prepositioning force
MPS	maritime prepositioning ships
MSOC	medical support operations center
MTF	medical treatment facility
MWSS	Marine wing support squadron
NAVMED	Navy Medical
NCMI	National Center for Medical Intelligence
OCONUS	outside the continental United States
OIF	Operation Iraqi Freedom
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
PET	patient evacuation team
PHIBRON	amphibious squadron
PMI	patient movement item
PVNTMED	preventive medicine
RBC	red blood cells
Rh	Rhesus factor
S-1	personnel officer
S-2	intelligence officer
S-3	operations officer
S-4	logistics officer
S-6	communications system officer
SC	surgical company
SIMLM	single integrated medical logistics manager
SMU	supported activities supply system (SASSY) management unit

SOP	standing operating procedure
STP	shock trauma platoon
T-AH	hospital ship
TCCC	tactical combat casualty care
TMIP	theater medical information program
T/O	table of organization
TPMRC	theater patient movement requirements center
TRAC2ES	United States Transportation Command Regulating and Command and Control Evacuation System
US	United States
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
VHF	very high frequency

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3-02	Amphibious Operations
4-06	Mortuary Affairs

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3-24	Assault Support
4-11	Tactical-Level Logistics
4-11.1	Health Service Support Operations
4-11.7	MAGTF Supply Operations
5-1	Marine Corps Planning Process

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