

CHAPTER 1

COMBAT HEALTH SUPPORT SYSTEM**Section I. OVERVIEW OF COMBAT HEALTH SUPPORT****1-1. General**

This chapter provides an overview of the combat health support (CHS) system designed to provide health care to our soldiers on the battlefield. The system was designed to provide a continuum of care, from the point of injury and/or forward line of own troops (FLOT) through successive echelons of care, to definitive and rehabilitative hospitals in the continental United States (CONUS) sustaining base.

1-2. Echelons of Medical Care

Combat health support is arranged in echelons of care (Figure 1-1). Each echelon reflects an increase in medical capabilities while retaining the capabilities found in the preceding echelon.

a. The first medical care a soldier receives is provided at Echelon I. This echelon of care includes the following:

- Immediate lifesaving measures.
- Disease and nonbattle injury (DNBI) prevention.
- Combat stress control (CSC) preventive measures.
- Patient collection.
- Medical evacuation from supported units to supporting medical treatment elements.

● Treatment provided by designated combat medics or treatment squads (battalion aid stations [BASS]). Major emphasis is placed on those measures necessary for the patient to return to duty (RTD), or to stabilize him and allow for his evacuation to the next echelon of care. These measures, include maintaining the airway, stopping bleeding, preventing shock, protecting wounds, immobilizing fractures, and other emergency measures, as indicated.

(1) The combat medic is assisted in his duties by nonmedical personnel performing first-aid procedures. First aid is administered by an individual (self-aid or buddy aid) and by the combat lifesaver.

(a) *Self-aid and buddy aid.* Each individual soldier is trained to be proficient in a variety of specific first-aid procedures. These procedures include aid for chemical casualties with particular emphasis on lifesaving tasks. This training enables the soldier or a buddy to apply immediate first aid to alleviate a life-threatening situation.

(b) *Combat lifesaver.* The combat lifesaver is a member of a nonmedical unit selected by the 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 this individual does not change. The additional duty of the combat lifesaver is to provide enhanced first aid for injuries based on his training before the combat medic arrives. The combat lifesaver's training is normally provided by medical personnel assigned, attached, or in direct support (DS) of the unit. The training program is managed by the senior medical person designated by the commander.

(2) Echelon I medical treatment is provided by the combat medic or by personnel in the BAS.

(a) Emergency medical treatment (EMT) (immediate far forward care) consists of those lifesaving steps that do not require the knowledge and skill of a physician. The combat medic is the first individual in the CHS chain who makes medically-substantiated decisions based on medical military occupational specialty (MOS)-specific training.

(b) The physician and the physician assistant (PA) in a treatment squad are trained and equipped to provide advanced trauma management (ATM) to the battlefield casualty. This element also conducts routine sick call when the situation permits. Like elements provide this echelon of care in divisions, corps, and communications zone (COMMZ) units.

(c) Echelon I medical care is provided by-

- Medical platoons/sections [Figure 1-2] of combat and combat support (CS) battalions.
- Divisional medical companies.
- Corps and COMMZ area support medical companies (ASMCs).

b. Echelon II care is provided at the clearing station which is operated by the treatment platoon of the medical company. Here the patient is evaluated to determine his priority for continued evacuation to the rear, or is treated and returned to duty. Emergency care, including beginning resuscitation, is continued and, if necessary, further emergency measures are instituted; however, these measures do not go beyond the measures dictated by the tactical situation. Those patients who can RTD within 72 hours are held for treatment. Units providing Echelon II care are located in the combat zone (CZ) (brigade support area [BSAJ, division support area [DSA], corps support area [CSA], and the COMMZ.

c. Echelon III care is provided in medical treatment facilities (MTFs) staffed and equipped to provide care for all categories of patients (combat support hospital [CSH]) and for patients whose wounds make them nontransportable and require surgical care by a surgical squad/detachment or a mobile army surgical hospital [MASH] prior to further evacuation. The MASH is normally deployed in the division rear area and is located close to the division clearing station.

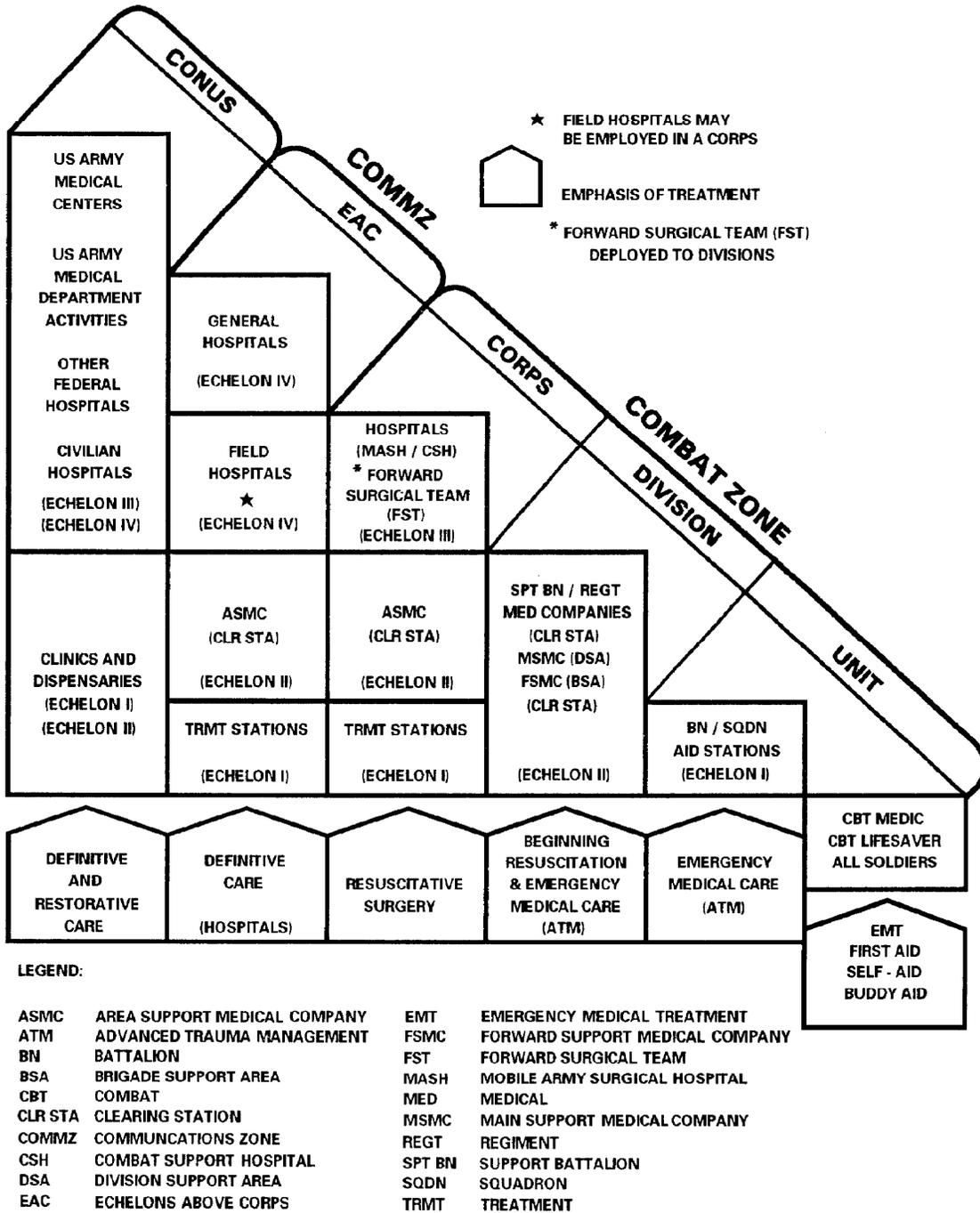
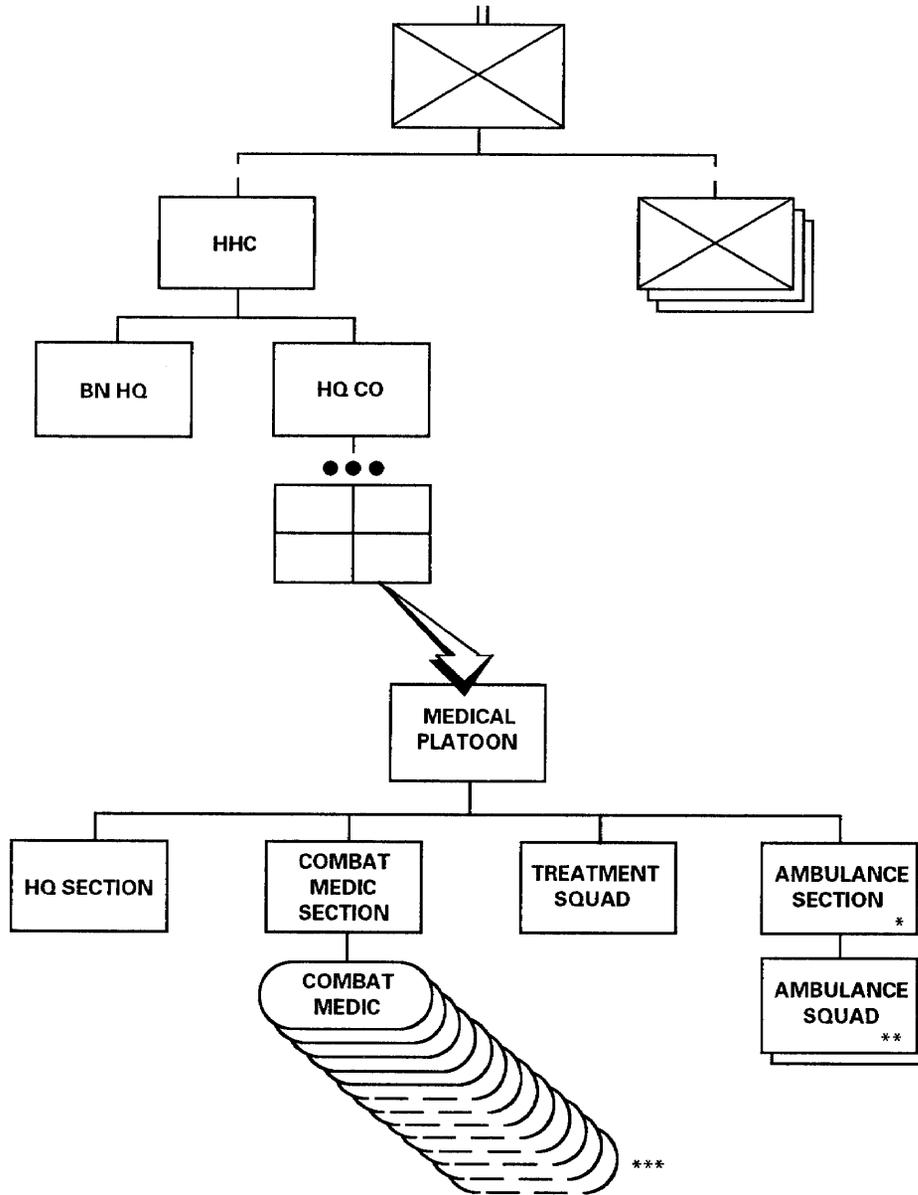


Figure 1-1. Echelons of care.



NOTE:

* MECHANIZED INFANTRY AND ARMOR UNITS HAVE 4 AMBULANCE SQUADS.

** TWO AMBULANCE TEAMS.

*** AIRBORNE AND AIR ASSAULT UNITS HAVE 12, LIGHT INFANTRY UNITS HAVE 9, ARMOR UNITS HAVE 5, AND MECHANIZED INFANTRY UNITS HAVE 13.

Figure 1-2. Medical platoon.

d. Echelon IV medical care enables the patient to be treated in a general hospital (GH) staffed and equipped for general and specialized medical and surgical care, or a field hospital (FH) which provides rehabilitative and convalescent care for those patients who are expected to RTD within the theater evacuation policy. These units are normally located in the COMMZ.

1-3. The Medical Threat and Medical Intelligence

a. The medical threat is a composite of all ongoing or potential enemy actions and environmental conditions that may render a soldier combat ineffective. The soldier's reduced effectiveness results from sustained wounds, injuries, stress-induced performance deterioration, or diseases. The elements of the medical threat include, but are not limited to—

- Diseases endemic to the area of operations (AO).
- Environmental factors (heat, cold, humidity, and significant elevations above sea level).
- Battle injuries from conventional and nuclear, biological, and chemical (NBC) and directed-energy (DE) weapons/devices.
- The level of compliance with the law of war and the Geneva Conventions (Appendix A) requirements regarding “respect and protection” of medical personnel, medical facilities, and transportation means.
- Physiologic and psychological stressors.

b. In order to develop the CHS estimate and plan (Appendix B), the CHS planner obtains updated medical intelligence through intelligence and other channels. Medical intelligence is the product resulting from the collection, evaluation, analysis, integration, and interpretation of all available general health and bioscientific information. Medical intelligence is concerned with one or more of the medical aspects of foreign nations or AO. Until medical information is appropriately processed (ordinarily on the national level by the Armed Forces Medical Intelligence Center [AFMICI]), it is not considered to be intelligence.

For additional information on the medical threat and medical intelligence, refer to paragraph 1-13 and to FM 8-10, FM 8-10-8, FM 8-42, and FM 8-55.

1-4. Planning for Combat Health Support

a. The extended and nonlinear battlefield stretches CHS capabilities to the maximum. It presents unprecedented challenges to the CHS planner as well as to the tactical commander. While the responsibility for what is or is not done is the tactical commander's alone, he must rely on his staff and his subordinate commanders to execute his decisions. It is imperative that the CHS planner be

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involved in the initial stages of the planning process. A thorough understanding of the tactical commander's plan is necessary for the CHS commander to sustain the tactical commander during the absence of orders or communications. Combat health support planning is an intense and demanding process. The CHS planner must know what the organic capabilities of the supported units are and—

- WHAT each supported element will do.
- WHEN it will be done.
- HOW it will be accomplished.

b. The CHS planner must foresee actions beforehand to be able to plan for positive and responsive support to each element supported. He must be prepared to meet the requirements for—

● Patient evacuation (to include training of nonmedical personnel to serve as litter bearers) and medical regulating.

- Hospitalization.
- Health service logistics, to include blood management.
- Preventive medicine (PVNTMED) services.
- Veterinary services.
- Dental services.
- Combat stress control.
- Command, control, communications, computers, and intelligence (C⁴).
- Medical laboratory services.
- Area medical support.

c. To ensure effective support, the CHS planner must stay abreast of the tactical commander's plans and objectives. This ensures that the CHS plan provides the flexibility to meet changes in the CHS requirements. To this end, commanders and their staffs must coordinate horizontally and vertically with both medical and nonmedical staffs. Commanders must be able to reallocate medical resources as the tactical situation changes.

d. On the integrated battlefield, medical units can anticipate situations in which large numbers of patients are produced in a relatively short period of time. These mass casualty situations

may exceed local CHS capabilities (Appendix C). Key factors for effective mass casualty management are on-site triage, EMT, effective communications, and skillful evacuation by ground and air resources.

- The objective of providing the greatest good for the greatest number is achieved by medical units maximizing the use of available resources and prioritizing missions.

- To free medical personnel from nontreatment duties, nonmedical personnel may have to serve as litter bearers, perform rescue operations, or perform other nonmedical tasks, as required.

e. Combat health support planning is an intricate process which enables the CHS commander to develop the most effective and flexible plan for providing CHS to the tactical commander. Appendix B provides a sample of the CHS estimate and the CHS plan. For additional information on the planning for CHS, refer to FM 8-10, FM 8-42, FM 8-55, FM 101-10-1/1, and FM 101-10-1/2.

1-5. Principles of Combat Health Support

a. *Conformity.* Conformity with the tactical plan is the most fundamental element for effectively providing CHS. Only by participating in the development of the operation plan (OPLAN) can the CHS planner ensure adequate support at the right time and the right place.

b. *Continuity.* Combat health support must be continuous since an interruption of treatment may cause an increase in morbidity and mortality. No patient is evacuated any farther to the rear than his physical condition or the military situation requires.

c. *Control.* Technical control and supervision of medical assets must remain with the appropriate force-level surgeon. Combat health support staff officers must be proactive and keep their commanders apprised of the impact of future operations on CHS resources. The CHS system must be responsive to a rapidly changing battlefield and must support the tactical OPLAN in an effective manner. The medical commander must be able to tailor CHS organizations and direct them to focal points of demand throughout his AO. Treatment performed at each echelon of the CHS system must be commensurate with available CHS resources. Since these resources are limited, it is essential that their control be retained at the highest CHS level consistent with the tactical situation.

d. *Proximity.* The location of CHS assets in support of combat operations is dictated by the tactical situation (mission, enemy, terrain, troops, and time available [METT-T] factors), time and distance factors, and availability of evacuation resources. The speed with which medical treatment is initiated is extremely important in reducing morbidity and mortality. Medical evacuation time must be minimized by the efficient allocation of resources and the judicious location of MTFs. The MTFs cannot be located so far forward that they interfere with the conduct of combat operations or are subjected to enemy interference. Conversely, they must not be located so far to the rear that medical treatment is delayed due to the lengthened evacuation time. Further, the location of the

MTFs may be affected by the level of conformance to the Geneva Conventions protections by the combatants.

e. *Flexibility.* Since a change in tactical plans or operations may require redistribution or relocation of medical resources to meet the changing requirements, no more medical resources should be committed nor MTFs established than are required to support expected patient densities. When the patient load exceeds the means available for treatment (mass casualty situation), it may be necessary to give priority to those patients who can be returned to duty the soonest, rather than those who are more seriously injured. This ensures manning of the tactical commander's weapons systems.

f. *Mobility.* Since contact with supported units must be maintained, CHS elements must have mobility comparable to that of the units they support. Mobility is measured by the extent to which a unit can move its personnel and equipment with organic transportation. When totally committed to patient care, a CHS unit can regain its mobility only by immediate patient evacuation.

1-6. Capabilities of the Combat Health Support System

a. The CHS capabilities of each echelon are designed to meet the characteristics of the operational environment. They play a specific part in the phased treatment, hospitalization, and evacuation of sick, injured, or wounded soldiers. Each successive echelon of CHS has the capabilities to perform functions of the lower echelon and has additional capabilities that cannot be located farther forward. This allows higher CHS echelons to regenerate lower echelons and to provide CHS on an area basis.

b. Prevention begins with the individual soldier's awareness of the means to protect himself against DNBIs through health and personal hygiene education, stress management, proper nutrition, physical fitness, safety procedures and training, and other similar measures. This awareness is further enhanced through—

- Expanded self-aid, buddy aid, and combat lifesaver training programs.
- Continuous interface with Echelons I and II treatment personnel.
- Preventive medicine programs.
- Combat stress control training.
- Leadership emphasis at all levels of command.

NOTE

Prevention is the most effective, least expensive method of providing the tactical commander with sustained combat power. The key to prevention begins with soldiers maintaining a high level of personal hygiene.

c. Medical elements within the division require flexibility and responsiveness if they are to provide effective and timely CHS. Effective CHS enables rapid treatment and RTD for those casualties who are either sick or suffering from minor wounds or injuries. More seriously wounded patients are provided prompt stabilizing treatment and evacuated to an MTF equipped to provide for their medical conditions.

1-7. Army Medical Department Battlefield Rules

The Army Medical Department (AMEDD) has developed medical battlefield rules to aid in establishing priorities and resolving conflicts for competing priorities within CHS activities.

- a. These battlefield rules are (in order of their priority) to-
 - Maintain medical presence with the soldier.
 - Maintain the health of the command.
 - Save lives.
 - Clear the battlefield.
 - Provide state-of-the-art care.
 - Return soldiers to duty as early as possible.
- b. For additional information, refer to FM 8-55.

1-8. Modular Medical Support System

a. *General.* The modular medical support system was designed to standardize all medical subelements in Echelons I and H. The divisional medical units and Echelon II units in the corps and COMMZ are based on this design. This system enables the medical resources manager to rapidly tailor, augment, reinforce, or regenerate CHS units as needed. This system is designed to acquire, receive, and triage patients and to provide EMT and ATM. Combat health support originates in the forward areas (divisions) with the combat medic (Echelon I). From this point, the patient is evacuated to the BAS (Echelon I) and then to the division clearing station (Echelon II). The ASMC provides Echelons I and II CHS on an area basis to units operating in the corps and COMMZ.

b. *Modular Medical Support System.* The modular medical support system is built around six modules. These modules are oriented to casualty collection, treatment, and RTD or evacuation.

(1) *Combat medic.* The combat medic module consists of one combat medical specialist and his prescribed load of medical supplies and equipment.. Combat medics are organic to the medical platoons or sections of combat and CS battalions and are attached to the companies of the battalions.

(2) *Ambulance squad.* An ambulance squad is comprised of four medical specialists and two ambulances. This squad provides patient evacuation throughout the division (and/or corps and COMMZ) and medical care en route. Ambulance squads are organic to the medical platoons or sections in the maneuver battalions and division/nondivisional medical companies and the ASMCs. In the division medical company, ambulance squads may be collocated with the BAS or forward sited with the companies of the maneuver brigades.

(3) *Treatment squad.* This squad consists of a primary care physician, a PA, and six medical specialists. The squad is trained and equipped to provide ATM to the battlefield casualty or to treat and return him to duty. Advanced trauma management is physician- or PA-directed emergency medical care designed to resuscitate and stabilize the patient for evacuation to the next echelon of medical care. To maintain contact with the combat maneuver elements, each squad has two vehicles equipped with trauma treatment medical equipment sets (MESS). Each squad can split into two treatment teams (one team is headed by the physician and the other by the PA). These squads are organic to medical platoons or sections in maneuver and designated CS units, as well as being the basic building block of the medical company.

(4) *Area support squad.* This squad is comprised of one dentist trained in ATM, a dental specialist, an x-ray specialist, and a medical laboratory specialist. The squad is organic to the medical companies within the BSA, DSA, CSA, or COMMZ.

(5) *Patient-holding squad.* This squad consists of two practical nurses and two medical specialists. It is capable of holding and providing minimal care for up to 40 (20 in the light infantry division [LID]) RTD patients. This squad is also organic to the medical companies within the BSA, DSA, CSA, or COMMZ.

NOTE

When a treatment squad, an area support squad, and a patient-holding squad are collocated, they form an area support section. This section provides CHS on an area basis to all forces within a geographical area of responsibility (clearing station). The area support section normally operates in the BSA, DSA, CSA, or COMMZ. The area support and patient-holding squads are incapable of independent operations.

(6) *Medical detachment (surgical,) and surgical squad.* The medical detachment (surgical) is a corps asset and is an augmentation to Echelon II CHS. It deploys as far forward as necessary to support division/task-force operations. This detachment must collocate with a patient-holding squad for support. Each airborne and air assault division has two surgical squads which are organic to the main support medical company (MSMC). Both the corps medical detachment (surgical) and the airborne and air assault division organic surgical squads have the same basic design. They are organized to provide early resuscitative surgery for seriously wounded or injured casualties, to

save lives, and to preserve function. Early surgery is performed whenever a likely delay in the evacuation of a patient threatens life or is anticipated to significantly affect the quality of recovery. The task-force medical detachment (surgical) and organic surgical squads will normally be employed in the DSA, but may be employed in the BSA during task-force operations. (Normally, the medical detachment (surgical) is attached to a treatment platoon and collocated with the division clearing station or possibly an ASMC). Postsurgical patients, awaiting evacuation, are held by the patient-holding squad with nursing care provided by the nurses of the surgical module.

Section II. COMBAT HEALTH SUPPORT FUNCTIONAL AREAS

1-9. General

The CHS continuum encompasses all of the functional areas within the AMEDD, to include C⁴1. However, C⁴1 will not be discussed in this chapter; it is included throughout the manual as appropriate. Within the division, the full spectrum of services are provided by a combination of organic, assigned, attached, in DS, and in general support (GS) CHS resources.

1-10. Patient Evacuation and Medical Regulating

a Patient Evacuation. The systematic evacuation of sick, injured, or wounded soldiers within US Forces has been an evolutionary process. The current organizational design and doctrine are based on years of experience and the assimilation of lessons learned. Medical evacuation encompasses—

- Collecting the wounded for evacuation.
- Sorting (triage).
- Providing an evacuation mode.
- Providing medical care en route.
- Anticipating complications and being ready and capable to perform emergency medical intervention.

(1) *Responsibilities.* For medical evacuation, the gaining echelon is responsible for arranging for the evacuation of patients from lower echelons of care. For example, Echelon II medical units are responsible for evacuating patients from Echelon I medical units. Medical evacuation

begins when medical personnel receive the sick, injured, or wounded soldier and continues as far rearward as the patient's medical condition warrants, or the military situation requires.

(2) *Theater evacuation policy.* The theater evacuation policy is established by the Secretary of Defense, with the advice of the Joint Chiefs of Staff, and upon the recommendation of the theater commander. The policy establishes in the number of days, the maximum period of noneffectiveness (hospitalization and convalescence) that patients may be held within the theater for treatment. This policy does not mean that a patient is held in the theater of operations (TO) for the entire period of noneffectiveness. A patient who is not expected to be ready for RTD within the number of days established in the theater evacuation policy is evacuated to CONUS or some other safe haven. This is done providing that the treating physician determines that such evacuation will not aggravate the patient's disabilities or medical condition. For example, a theater evacuation policy of days does not mean that a patient will be held in the TO for 29 days and then evacuated. Rather, it means that a patient is evacuated as soon as it is determined that he cannot be returned to duty within 30 days following admission.

- To the degree that unplanned increases in patients occur (epidemic or heavy combat casualties), a temporary reduction in the policy may be required. This reduction is used to adjust the volume of patients being held in the TO hospital system. A reduction in the evacuation policy increases the number of patients requiring evacuation out of the TO, and it increases the requirement for evacuation assets. This action is necessary to relieve the congestion caused by the patient increases.

- The time period established in the theater evacuation policy starts on the date the patient is admitted to the first hospital (CZ or COMMZ). The total time a patient is hospitalized in the theater (including transit time between MTFs) for a single, uninterrupted episode of illness, injury, or wounding should not exceed the number of days stated in the theater evacuation policy. Though guided by the evacuation policy, the actual selection of a patient for evacuation is based on clinical judgement as to the patient's ability to tolerate and survive the movement to the next echelon of hospitalization.

**This paragraph implements STANAGs 2087 and 3204, QSTAG 529, and
Air STDs 44/36A and 61/71.**

(3) *Evacuation precedences.* The determination to request medical evacuation and assignment of a precedence is made by the senior military person present. This decision is based on the advice of the senior medical person at the scene, the patient's condition, and the tactical situation. Assignment of a medical evacuation precedence is necessary. The precedence provides the supporting medics] unit and controlling headquarters with information that is used in determining priorities for committing their evacuation assets. For this reason, correct assignment of precedence cannot be overemphasized; overclassification remains a continuing problem. Patients are picked up for evacuation as soon as possible, consistent with available resources and pending missions. The following categories of precedence and the criteria used in their assignment are:

(a) Priority I-URGENT is assigned to emergency cases that should be evacuated as soon as possible and within a maximum of 2 hours in order to save life, limb, or eyesight, to prevent complications of serious illness, or to avoid a permanent disability.

(b) Priority IA-URGENT-SURG is assigned to patients who must receive far forward surgical intervention to save life and stabilize them for further evacuation. (This precedence applies primarily to those patients requiring care at a MASH deployed in the division rear area.)

(c) Priority II-PRIORITY is assigned to sick, injured, or wounded personnel requiring prompt medical care. This precedence is used when the individual should be evacuated within 4 hours or his medical condition could deteriorate to such a degree that he will become an URGENT precedence, or whose requirements for special treatment are not available locally, or who will suffer unnecessary pain and disability.

(d) Priority III-ROUTINE is assigned to sick, injured, or wounded personnel requiring evacuation, but whose condition is not expected to deteriorate significantly. The sick and wounded in this category should be evacuated within 24 hours.

(e) Priority IV-CONVENIENCE is assigned to patients for whom evacuation by medical vehicle is a matter of medical convenience rather than necessity. (This can include battle fatigue casualties (BFCs).)

(4) *Evacuation request and procedures.* Refer to Appendix D for a discussion of the evacuation request format and required procedures.

(5) *Use of nonmedical transportation assets.*

(a) When the medical evacuation system becomes overwhelmed with patients, as in a mass casualty situation, nonmedical transportation assets are required to move the wounded. Prior planning to incorporate this requirement into the OPLAN ensures that the use of these assets is integrated with the dedicated medical evacuation platforms. When the use of nonmedical transportation assets is planned, augmentation medical personnel should be requested to provide medical care en route on these vehicles. Table 1-1 depicts the coordination requirements for the use of nonmedical vehicles.

(b) For BFCs, the use of nonmedical transportation is preferred, if available. Further, ground transportation is preferred to air transport. Coordination is required to arrange for the backhaul of BFCs on general purpose transportation assets. The BFC should be escorted by CSC personnel or evacuated in medical ambulances.

b. Medical Regulating. Medical regulating is the coordination and control of moving patients to MTFs which are best able to provide required specialty care. This system is designed to ensure the efficient and safe movement of patients.

(1) *Purpose.* Medical regulating entails identifying patients awaiting evacuation, locating available hospital beds, and coordinating the transportation means for movement.

Table 1-1. Coordination Requirements for Nonmedical Transportation Assets and Medical Augmentation to Provide En Route Medical Care

ELEMENT REQUIRING SUPPORT	TYPE OF TRANSPORTATION	COORDINATE TRANSPORTATION WITH	MEDICAL AUGMENTATION FOR EN ROUTE MEDICAL CARE COORDINATED WITH
Company Aid Post	Ground	Company	Battalion Aid Station
Battalion Aid Station	Ground	Maneuver Battalion S4	*FSMC
Clearing Station (BSA)	Ground	DMOC-MCO DMOC	*MSMC
	Air	G3 Air	*MSMC
Clearing Station (DSA)	Ground	DMOC-MCO DMOC	*Corps Med Gp/Bde
	Air	G3 Air	*Corps Med Gp/Bde
Clearing Station (Corps)	Ground	ASMC	
	Air	Med Evacuation Battalion	
Engineer Battalion/ Company	Ground	FSB Spt Ops	*FSMC/*MSMC
	Air	G3 Air	
Field Artillery Battalion/ Battery	Ground	FSB/MSB Spt Ops	*FSMC/*MSMC
	Air	G3 Air	*FSMC/*MSMC
Other Units without organic medical support operating in division area	Ground	DMOC-MCO Corps MCT *FSMC/*MSMC	*FSMC/*MSMC
	Air	G3 Air	

*In coordination with DMOC, if applicable.

LEGEND:

ASMC	AREA SUPPORT MEDICAL COMPANY	FSMC	FORWARD SUPPORT MEDICAL COMPANY
BSA	BRIGADE SUPPORT AREA	MCO	MOVEMENT CONTROL OFFICER
DSA	DIVISION SUPPORT AREA	MCT	MOVEMENT CONTROL TEAM
DMCO	DIVISION MEDICAL OPERATIONS CENTER	MSB	MAIN SUPPORT BATTALION
FSB	FORWARD SUPPORT BATTALION	MSMC	MAIN SUPPORT MEDICAL COMPANY

to—

(a) Careful control of patient evacuation to appropriate hospitals is necessary

- Effect an even distribution of cases.
- Ensure adequate beds are available for current and anticipated needs.
- Route patients requiring specialized treatment to the appropriate MTF.

(b) The factors which influence the scheduling of patient movement include—

- Patient's medical condition (stabilized to withstand evacuation).
- Tactical situation.
- Availability of evacuation means.
- Locations of MTFs with special capabilities or resources.
- Current bed status.
- Surgical backlogs.
- Number and location of patients by diagnostic category.
- Location of airfields, seaports, and other transportation hubs.
- Communications capabilities (including radio silence procedures).

(2) *Division medical operations center.* Medical regulating in and from the division is the responsibility of the division medical operations center (DMOC) (patient disposition and reports branch). Medical regulating in the division is informal and is usually operated procedurally so as not to depend solely on communications to effect rapid evacuation. The medical regulating function of the DMOC is concerned primarily with—

- Tracking the movement of patients throughout the division MTFs and into corps facilities.
- Monitoring the location of corps air and ground ambulance assets in support of the division.
- Coordinating with the corps medical evacuation battalion when it becomes obvious that more assets are needed.

(a) Corps air and ground ambulances placed in GS of the division are usually field sited in the division rear and tasked by the DMOC. When these assets go forward to the MSMC

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or forward support medical company (FSMC) to evacuate patients to corps MTFs, they have corps MTF destinations predetermined (blocks of beds). The DMOC, in coordination with the medical group medical regulating office (MRO), establishes the number of patients a supporting corps hospital can accept during a particular period of time. These blocks of available beds are then provided to the GS ambulances prior to the call for the mission.

- Once an evacuation mission is completed, the originating division MTF contacts the patient disposition section of the DMOC and provides patient numbers by category and precedence; departure times; modes of transportation; destination MTFs; and any other information required by the tactical standing operating procedure (TSOP) (Appendix E).

- The DMOC, in turn, notifies the medical group MRO via the patient administration net, which is monitored by the corps MTF's. Since the corps ground ambulances have no on-board communications capability and air ambulances have no amplitude modulated-high frequency (AM-HF) capability at present, all patient information is passed to the gaining MTFs via the patient administration net. To reduce turnaround time for ground ambulances and to move more seriously ill, injured, or wounded patients to the CSHs in the corps rear, air ambulances are given blocks of beds in the corps hospitals farther to the rear and ground ambulances are normally given blocks of beds in the more forward deployed CSHs.

(b) Patient evacuation can be effected immediately, procedurally, and under conditions of communications silence without interrupting the continuum of care by—

- Preparing casualty estimates.
- Prioritizing and task-organizing ambulance support.
- Assigning blocks of hospital bed designations prior to the start of a mission.

(3) *Additional information.* For additional information on medical regulating, refer to FM 8-10, FM 8-10-3, and FM 8-10-6.

1-11. Hospitalization

The hospitalization capability is found in Echelons III and IV. Each hospital type serves a specific, primary role and is capable of handling all categories of patients (except the MASH). The CSH, FH, and GH are internally structured in a modular form to permit incremental increases or decreases for varied patient work loads and mission adaptability. To provide an emergency surgical intervention capability in the division area, the MASH may be deployed to the DSA. The DMOC assists in regulating trauma patients to this facility for stabilization prior to further evacuation to the rear.

b. The medical company, holding, provides the division and nondivisional elements with additional capability for holding patients. It may be used to hold battle fatigue (BF) and combat stress

patients in the division, corps, or COMMZ areas. Further, when a surgical squad is required in the DSA or CSA, this unit, as well as the surgical squad, can be collocated with a clearing station to provide a holding capability for preoperative and postoperative care. The medical-holding company provides 1,200 cots for the convalescence and reconditioning of RTD patients. It is minimally staffed and equipped, and provides for basically self-care patients who are expected to RTD. Major capabilities include—

(1) The ability to task organize by separating the company into five holding platoons, each capable of operating 240 cots. These elements can be attached to augment a hospital, a clearing station, or a CSC medical company/detachment.

(2) Minor medical treatment and physical and occupational rehabilitation.

1-12. Health Service Logistics and Blood Management

a. *Health Service Logistics.* Health service logistics support is an integral part of the CHS system. Health service logistics includes medical supplies and equipment, medical equipment maintenance, blood management (discussed in *b* below), and optical fabrication.

(1) Medical supplies (class VIII [Class VIIIa-pharmaceuticals/biologicals and Class VIIIb-blood]) consist of medical materiel to include medical-peculiar repair parts used to sustain the CHS system. The Class VII system is under the direction of the US Army Surgeon General. It is a specialized subsystem of the Army's logistics system. The Class VIII system basically follows the requirements of the AR 700-Series with exceptions provided in AR 40-61. Certain characteristics set the Class VIII system apart from other commodities and place unique requirements on Army medical materiel managers. These characteristics are the—

- Protected status afforded Class VIII supplies under the provisions of the Geneva Conventions. It is, therefore, necessary to store and distribute medical materiel separately from other classes of supply for it to be considered protected materiel.
- Overriding requirements for a materiel system that is immediately and completely responsive to the health care providers.
- Integral function that health service logistics plays in the patient treatment and evacuation system for which the US Army Surgeon General has sole responsibility.
- Highly technical nature of the commodity and its extensive regulation by the federal government. Medical materiel must be stored under tightly controlled conditions and managed by highly trained professionals who are thoroughly knowledgeable in the specialized requirements of this commodity.

(2) Medical equipment maintenance ensures that life-sustaining equipment is fully mission capable. This support must be provided as far forward as possible. Maintenance planning

must be reconducted concurrently with supply planning as the two areas are closely related. A good maintenance program will relieve strain on the supply system by identifying and repairing equipment that would otherwise require replacement. Properly authorized stockage list management improves maintenance turnaround when repair parts are required beyond prescribed load list (PLL) stockage capability.

(3) Optical support includes—

- Fabrication of single-vision and multivision prescription lenses.
- Fabrication of standard spectacles.
- Fabrication of aviation spectacles.
- Fabrication of ballistic/laser protection spectacle inserts.
- Provision for contact lens for selected aviators.
- Military standard spectacle frame repair.

(4) Medical resupply in the division includes—

(a) *Combat lifesaver.* The normal medical resupply of the combat lifesaver, who is assigned to a battalion with organic medical support, is through the senior medic assigned to that medical organization (for example, the senior company medic assigned to the medical platoon's BAS). Combat lifesavers, whose unit does not have organic medical support, will be resupplied by the medical unit providing area medical coverage (that is, an FSMC/MSMC or Echelon III medical facility). Emergency medical resupply of the combat lifesaver can be provided by the combat medic; however, it must be noted that the combat medic does not carry all of the medical items required by the combat lifesaver (for example, the combat lifesaver carries 500 milliliter [ml] of intravenous [IV] fluid, while the combat medic carries 1,000 ml of IV fluid).

(b) *Combat medic.* Resupply of the combat medic is the responsibility of the BAS. This mission is handled and supervised by medical personnel. The combat medic requests his supplies from the BAS. This action is not a formal request so it can be either in oral or written form. The requests are delivered to the BAS by whatever means are available. Usually this is accomplished by the driver or the medic in the ambulance returning to the BAS with patients. The ambulance then transports the requester's supplies forward from the BAS. This system is referred to as backhaul. Commonality of supplies between the combat medic and the ambulance MES may allow the ambulance crew to fill the combat medic's request from on-board stock. The ambulance crew can then replenish their stocks upon returning to the BAS.

(c) *Battalion aid station.* Resupply of forward deployed BASS is the primary responsibility of the division medical supply office (DMSO). The FSMC may provide emergency resupply of the BAS and transportation of the medical supplies via their ground ambulances effecting

backhaul distribution. The normal resupply will be from the DMSO using unit distribution (UD). The DMSO will coordinate transportation through the division movement control center (DMCC) for divisional or corps transportation assets operating in the DSA and BSA. The DMSO should coordinate with the medical logistics (MEDLOG) battalion (forward) for possible throughput of medical supplies directly to the BSA for support of the FSMC and medical platoons.

(d) Forward support medical company and main support medical company. Resupply of the FSMC and MSMC is accomplished by the DMSO. The DMSO provides medical supply support to all units within the division area. Requests may come by message (with returning ambulances), by land line, or through existing communications nets within the division. Requests for medical supplies from BASS, FSMCs, and MSMCs are filled or forwarded to the MEDLOG battalion (forward).

(e) Division medical supply office. Resupply of the DMSO is provided by the MEDLOG battalion (forward).

(5) Medical maintenance is the responsibility of the unit commander. The scope of medical maintenance ranges from basic mechanical equipment to complicated medical electronic equipment such as an x-ray machine. If an item of medical equipment in the BAS requires unit maintenance, the supporting medical equipment repairer is contacted for maintenance. Medical maintenance support is provided by the medical equipment repairer (unit) assigned to each medical company or the DMSO. If an item of equipment cannot be repaired at the unit level, then the unit must notify the DMSO who requests a mobile support team from the MEDLOG battalion to repair it. The equipment will be repaired if the maintenance service falls within its capability. Any equipment requiring service beyond the capability of the MEDLOG battalion (forward) is further evacuated to the COMMZ. Low-density lifesaving diagnostic and therapeutic equipment is repaired or replaced immediately. The MEDLOG battalion maintains a Medical Standby Equipment Program (MEDSTEP) of designated items. Direct exchange for low-density lifesaving equipment through the use of the MEDSTEP may be employed if necessary. Repairable exchange assemblies, modules, and printed circuit boards are also used. (For additional information on MEDSTEP, refer to AR 40-61.)

(6) The DMSO, located in the main support battalion (MSB), is responsible for providing medical supply and medical maintenance support to the medical treatment elements within the division. The DMSO operates using supply point distribution. Medical supplies and equipment are moved using the backhaul system when ambulances returning to the forward areas transport this materiel.

(a) The health service materiel officer (HSMO) executes the health service logistics plan. He exercises his responsibilities by—

- Procuring, storing, and issuing Class VIII supplies.
- Coordinating with the supported elements to determine requirements for Class VIII materiel and red blood cells (RBCs).

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- Developing and maintaining authorized stockage levels of contingency medical supplies. These levels should be based upon transportation and storage constraints as well as the characteristics of the AO.

gram.

- Managing the division health service logistics quality assurance program.

- Supervising the unit-level medical equipment maintenance program.
- Monitoring the division medical assemblage management program.
- Coordinating logistical planning for the assembly, packing, and delivery of standard MESS and locally developed, unit-particular resupply sets.

- Establishing and operating the division Class VIII resupply system.

(b) The regeneration duties of the DMSO include—

- Coordinating with the DMOC to determine and acquire the number of medical assemblages needed to ensure units maintain medical readiness.

- Coordinating with the MEDLOG battalion (forward) to monitor the status of medical materiel requests.

- Coordinating through the DMOC for logistical support.
- Alerting the appropriate company when modular systems are due to arrive.

- Distributing modular medical assemblages to the units based on guidance from the commander or DMOC. (The DMSO coordinates with the DMCC through the DMOC for transportation assets to deliver modular medical assemblages to units being reorganized/regenerated. The DMSO coordinates with the division materiel management center (DMMC) to record issues of major equipment and assemblages on property records.)

- Preparing critical items listing and consolidating the critical shortages by brigade.

(c) Coordination for delivery of medical supplies and equipment is accomplished through the DMOC with the—

- Intelligence/Operations and Training section (S2/S3) (division support operations branch) for the movement of bulk supplies or assemblages from the DMSO to forward units when backhaul would be inadequate. (The DMOC directs quick fixes using available assets and controlled exchanges for medical equipment to maximize the capability of returning trained soldiers to duty.)

- Corps MEDLOG battalion (forward) for delivery of supplies from the health service logistics facility to the DMSO.

b. Blood Management.

(1) The management and distribution of resuscitative fluids in the TO, including blood products, colloids, and crystalloid, is a health service logistics function.

(2) Liquid blood products enter the theater through the United States Air Force (USAF) Blood Transshipment Centers (BTCs) for further distribution to Army blood bank platoons located in the MEDLOG battalions (forward) and (rear). Army MTFs are supplied required blood products from the blood bank platoons. Mobile army surgical hospitals and Echelon II MTFs are supplied by the forward support platoons of the MEDLOG battalion (forward), if deployed. Liquid blood products, limited to Group O RBCs, are issued, as required, down to the division clearing stations.

(3) Blood and resuscitation fluid capabilities in the division area include—

- Echelon I care:
 - Resuscitation fluids-Ringers lactate solution.
 - Blood products–none.
- Echelon II care:
 - Resuscitation fluids-Ringers lactate solution.
 - Blood products–Group O RBCs.

(4) Health service logistics personnel provide RBCs to the medical laboratory elements in the medical company. The medical laboratory specialist ensures proper storage, documents the use of the blood, checks the blood units for hemolysis, and issues RBCs as needed.

(5) A discussion of the complete blood management system to include Echelons III (CSH and MASH) and IV (GH and FH) is provided in FM 8-10 and FM 8-55.

(6) A blood reporting system within the TO is established to project blood requirements, request blood, report inventories, and provide information on the overall blood management operations. Echelon II MTFs can only request Group O RBCs. Additional information on this report and reporting procedures is contained in Appendix F and FM 8-55.

1-13. Preventive Medicine Services

Historically, DNBI have rendered more soldiers combat ineffective than actual battle casualties. Therefore, the medical threat must be recognized, analyzed, and measures taken to combat its effects.

The medical threat that accounts for the vast majority of combat noneffectiveness can be reduced to six broad categories. These are—

- Heat injuries caused by combinations of heat stress and insufficient water consumption.
- Cold injuries caused by combinations of inadequate clothing, low temperatures, wind, and wetness.
- Diseases caused by biting arthropods and animal bites.
- Diarrheal diseases and other enteric diseases caused by drinking nonpotable water, eating contaminated foods, and not practicing good individual hygiene and field sanitation.
- Diseases, trauma, or injuries caused by physical or mental unfitness.
- Environmental or occupational injuries caused by carbon monoxide, noise, blast overpressure, and solvents.

a. Brigade and division surgeons should monitor PVNTMED programs to ensure they are accomplished and/or to initiate programs that are required. Assistance with PVNTMED programs can be obtained from the PVNTMED section of the MSB or corps PVNTMED detachments. Command emphasis is needed to ensure that PVNTMED measures are practiced.

b. The company field sanitation team consists of two soldiers. The team is specially trained in water supply, food service sanitation, waste disposal (Appendix G), pest management, environmental injuries, and non-NBC chemical hazards. The field sanitation team serves as an aid to the unit commander in protecting the health of his command. Through regular inspections, the field sanitation team ensures sanitary standards are maintained and PVNTMED measures practiced. Preventive medicine personnel should not be assigned to the field sanitation team.

c. For additional information on PVNTMED doctrine and activities, refer to FM 8-10-7, FM 8-2;0, FM 21-10, and FM 21-10-1.

1-14. Veterinary Services

The US Army Veterinary Service provides support to all services: the Army, Navy, Air Force, and Marines, as well as other Department of Defense (DOD) and non-DOD federal agencies. There are no organic veterinary assets within the divisions, separate brigades, and armored cavalry regiments (ACRs). However, veterinary support is an integral part of the CHS system within the TO. Veterinary service within the theater includes—

- Inspection of subsistence.
- Inspection of food production, processing, and storage facilities.

- Control of foodborne disease.
- Maintenance of a directory of food sources sanitarily approved for Armed Forces procurement.
- Examination of food animals.
- Control of diseases transmitted from animals to humans.
- Examination and wholesomeness determination of food and food-producing animals in an NBC environment.
- Care and treatment of government-owned animals.
- Care and treatment of animals associated with civic action programs.
- Performance of allied health care missions, such as triage and emergency assistance in patient care.
- Performance of mobile veterinary laboratory operations.

1-15. Dental Services

Dental support is arranged in echelons, reflecting an increase in capability at each succeeding echelon. The functions of each lower echelon of dental support are contained within the capabilities of each higher echelon.

a. There are three dental care categories in a TO.

(1) Emergency care is the expedient dental treatment directed toward the relief of pain and management of infection and oral trauma.

(2) Sustaining care is the dental care necessary to keep the soldier functioning in his unit without further evacuation. This care is directed toward the correction of potential dental emergencies.

(3) Maintaining care consists of definitive dental care including routine dental procedures, prosthodontics appliances (dentures), minor oral surgical procedures, and a preventive dentistry program.

b. Division-level dental support includes emergency and sustaining dental care. The dental module at division level is composed of a dental officer and a dental specialist equipped with compact dental equipment. This equipment is lightweight and easily transported. A dental module is organic to the medical companies of the divisions, area support medical battalions (ASMBs), separate brigades, and Special Forces (SF) groups.

- c. For additional information on dental services, refer to FM 8-10-19.

1-16. Combat Stress Control

Combat stress control is a system-oriented program to control stressors and stress behaviors. It is coordinated and conducted by mental health (MH) or CSC personnel. Of primary importance in this effort are the organic MH sections of divisions, separate brigades, and ASMBs and the MH staffs of the medical brigade and group headquarters. The organic MH sections are augmented when and where needed by CSC teams from corps-level CSC medical companies or detachments.

- a. The CSC mission is to assist the commanders and medical units with CSC. The mission objectives are—

- (1) *Primary prevention.* This objective is to predict and monitor known stressors and indices of stress in units. The command is advised on interventions to control these stressors and to promote positive combat stress behaviors such as unit cohesion.

- (2) *Secondary prevention.* This objective relates to minimizing morbidity and contagion by sorting stress casualties and neuropsychiatric (NP) patients quickly, providing immediate treatment, and making disposition of those that can RTD.

- (3) *Tertiary prevention.* This objective relates to minimizing long-term disability and post-traumatic stress disorders (PTSD), both in those soldiers who become stress casualties and those who do not.

- b. Stress casualties include the following:

- (1) Battle fatigue casualties encompass all forms of stress-induced performance impairment and emotional distress.

- (2) Misconduct stress behaviors (MCSBs) are stress-induced behaviors which breach good discipline.

- (3) Wounded-in-action (WIA) and DNBI cases may also be hidden stress casualties, if their recovery is delayed by unresolved traumatic stress issues.

- (4) Individuals who develop PTSD are stress casualties, even though the syndrome is not manifested until months or years after the extreme stress has passed.

- (5) Any casualty whose loss was substantially caused by stress-induced performance deterioration, negligence, or impaired resistance may be considered a stress casualty. These categories may include WIAs, DNBI, missing in action (MIAs), and prisoners of war (PWs).

- c. The six functional areas within the CSC arena are—

- (1) Consultation/liaison (preventive education and advice).
 - (2) Reorganization/regeneration support.
 - (3) Neuropsychiatric triage of stress and NP cases.
 - (4) Stabilization of seriously disturbed or disruptive cases.
 - (5) Restoration of BFCs for 1 to 3 days at CSC treatment elements close to the soldier's unit.
 - (6) Reconditioning treatment for 4 to 14 days (depending upon division/corps evacuation policy) at special CSC facilities further to the rear for cases who fail to improve sufficiently in restoration treatment.
- d. For additional information, refer to FM 22-51.

1-17. Medical Laboratory Services

a. Medical laboratory assets function in CHS operations by analyzing body fluids and tissues to determine disease processes, or to identify microorganisms. The equipment and personnel available are limiting factors in the scope of services provided. The sophistication of laboratory services increases at each successive echelon of care.

b. Echelon II is the first level where a laboratory specialist is assigned. Medical laboratory assets at this echelon are adequate to the echelon of care, staffing, and necessity to maintain unit mobility. Laboratory tests are limited to manual procedures such as hematocrit (Hct), white blood cell (WBC) count, urinalysis (UA), and gram staining.

c. At Echelon III a laboratory officer or noncommissioned officer (NCO) is available. The numbers and types of tests which can be accomplished are increased at this echelon. Appendix H provides information on the types of procedures which can be accomplished by medical laboratories at Echelons II through IV.

1-18. Area Medical Support

Area medical support entails the provision of CHS by a designated unit to other units within a specified AO. This support is provided by Echelons I and II MTFs operating in both the CZ and COMMZ.