ATP 4-02.6

The Medical Company (Role 2)

NOVEMBER 2022

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This publication supersedes ATP 4-02.3, dated 9 June 2014.

Headquarters, Department of the Army

Foreword

As the U.S. Army's culture shifts from counterinsurgency, small-scale combat, or limited contingency operations to large-scale combat operations, medical forces must optimize Army Health System support at echelon for maximum effectiveness. Large-scale combat operations demand a flexible and agile medically ready force and ready medical force.

The medical company must be manned, equipped, and trained to support the Army forces as the Army supports the joint force during combat operations. Just as the Army seeks dominance in volatile, complex, and ambiguous environments, operational medicine must redefine how the Army Health System evolves to support these emerging challenges. Observations, insights, and lessons at major training events demonstrate the need for a company-level publication that drives the transition from the medical mission in support of operations the Army has grown accustomed to over the last 20 years to a much more difficult medical mission in support of large-scale combat operations.

Army Techniques Publication 4-02.6, *The Medical Company (Role 2)* is one of the medical treatment cornerstone Army Health System publications that provides doctrinal guidance of capabilities and capacities at each role of medical care. This publication outlines training considerations to help strengthen company operations in brigade-level medical support. It provides more detailed tactics, techniques, and procedures to conduct brigade-level medical support than previous medical company doctrine. This publication is designed to be the foundation for leaders and Soldiers to build their training on and gain the experience necessary to be successful in multidomain operations. This publication serves as the catalyst for leaders to perform now, develop competence in their leadership capabilities, and shape how to successfully support future operations at the Role 2 medical company.

TO CONSERVE FIGHTING STRENGTH!

MICHAEL J. TALLEY
MAJOR GENERAL, UNITED STATES ARMY
COMMANDING

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Preface

Army Techniques Publication 4-02.6 provides information on the structure and operation of medical companies in a Role 2 capacity within the theater of operation. It is directed toward the medical company leaders as well as the medical platoon leader and platoon sergeant who conduct medical operations at the Role 1 battalion aid stations and the Role 2 medical treatment facility. The tactics, techniques, and procedures provided are not all-inclusive. They provide a way of performing a particular mission but may require medical support based on mission, enemy, terrain, troops, time available, and civilian considerations with informational considerations.

This publication provides information on how force health protection and health service support are provided by medical organizations, medical companies, and sections organic to the division. It outlines the responsibilities of the medical company. It provides definitive information and doctrinal tools on planning, rehearsing, and conducting Army Health System support at Role 2. It provides tactics, techniques, and procedures for directing, controlling, and managing Army Health System support at the company level. It describes the troop leading procedures and military decision-making processes required for medical support and identifies interface and coordination requirements with other brigade, division, and corps medical elements.

The medical company is a complex organization and contains elements of the entire Army Health System. This publication is not a stand-alone reference and will require the user to be familiar with the entire Army Health System doctrine publications library consisting of the capstone field manual, Army techniques publications, and training circulars.

The principal audiences for ATP 4-02.6 are all commanders and their staffs, command surgeons, medical planners, Army Medicine personnel, and other medically qualified personnel assigned to or in support of maneuver forces who are executing Role 2 medical support in large-scale combat operations in a multidomain operational environment. It is to be used as a guide in both obtaining and providing Role 2 Army Health System support in a theater of operations. Information in this publication is applicable to decisive actions in support of large-scale combat operations. It is compatible with the Army's command and control, protection, and sustainment doctrine and is aligned with JP 4-02.

Commanders and staffs of Army headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine or standards agreements concerning the range of military operations and joint or multinational forces. Commanders and first sergeants of medical companies, operational medicine trainers, and educators throughout the Army will also use this publication.

Commanders, staffs, and subordinates ensure their decisions and actions comply with applicable United States, international, and in some cases host-nation laws and regulations. Commanders at all levels ensure their Soldiers operate in accordance with the law of armed conflict and applicable rules of engagement. For additional information on the law of armed conflict and the rules of engagement, refer to FM 6-27.

Army Regulation 40-5 changes the naming convention for the preventive medicine medical function to operational public health. The naming convention for unit designation remains the same, for example, preventive medicine detachment. *Operational public health* is defined as the application of public health practices and conduct of public health-related activities within a geographic area where military operations are conducted by TOE units (AR 40-5).

This publication references major policy guidance influencing specific topics. These references should not be considered the only policy guidance available. When issues arise that require consideration of policy guidance, the issue should be thoroughly researched and, as appropriate, coordinated with the supporting staff judge advocate or governmental or nongovernmental agency involved.

This publication implements or is in consonance with the American, British, Canadian, Australian, and New Zealand (Armies) (ABCANZ) Publication 256, *Coalition Health Interoperability Handbook,* and the following North Atlantic Treaty Organization (NATO) Standardization Agreements (STANAG):

TITLE	***ABCANZ***	***NATO STANAG***
Common Principles for Deployment Health Surveillance	2042	
Multinational Medical Unit Collective Training and Validation Standard	2109	
Pre-Hospital Combat Casualty Care Standards for ABCANZ Soldiers	2121	
Tactical Combat Casualty Care Card Documentation for ABCANZ Soldiers and Marines	2136	
Mass Casualty Response	2141	
En Route Care	2143	
Land Operational Report—ATP 105		2020
Documentation Relative to Initial Medical Treatment and Evacuation—AMed-8-1		2132
Allied Joint Doctrine for Medical Support—AJP-4.10		2228
Orders for the Camouflage of Protective Medical Emblems on Land in Tactical Operations—ATP 79		2931
Aeromedical Evacuation—AAMedP-1.1		3204

Army Techniques Publication 4-02.6 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. For other definitions shown in the text, the term is italicized, and the number of the proponent publication follows the definition. Unless this publication states otherwise, the following terms are synonymous with each other:

TERM	***SYNONYMOUS WITH***
battalion	squadron
brigade	regiment
combat medic specialist	combat medic or health care specialist
company	battery or troop
medical command (deployment support)	theater medical command
Role 1	medical platoon
Role 2	medical company

Army Techniques Publication 4-02.6 applies to the Active Army, Army National Guard/Army National Guard of the U.S., and U.S. Army Reserve unless otherwise stated.

The proponent and preparing agency of ATP 4-02.6 is the United States Army Medical Center of Excellence, Directorate of Training and Doctrine, Doctrine Literature Division. Send comments and recommendations on DA Form 2028 (*Recommended Changes to Publications and Blank Forms*) to Commander, United States Army Medical Center of Excellence (MEDCoE), Attention: ATMC-FD (ATP 4-02.6), Building 4011, Suite B, 2377 Greeley Road, JBSA Fort Sam Houston, TX 78234-7731; or by e-mail to usarmy.jbsa.medical-coe.mbx.ameddcs-medical-doctrine@army.mil. A rationale for each proposed change is required to aid in the evaluation and adjudication of each comment.

Introduction

This publication comes at a time when the Army and operational medicine forces are transitioning from limited contingency operations (counterinsurgency) to large-scale combat operations focus. For this to occur, medical forces must execute a cultural shift. After two decades of supporting counterinsurgency operations, the current generation of operational medicine personnel lack familiarity with large-scale combat operations.

Large-scale combat operations, combined with the multidomain extended operational environment and the shear scope of the battlefield will result in casualty numbers not seen since World War II. Due to the increased casualty numbers, duties once performed by one member of the organization may now have to be performed by a different member. Medical support to the warfighter is the operational medicine forces' number one priority, and the decision of who performs what duties in the medical company may be difficult but required in this cultural shift.

The material presented in this publication reflects enduring practices in providing timely Army Health System support to the tactical commander. This publication is the third of four publications that depict Army Health System support operations from point of injury or wounding through successive or same roles of care within the area of operations and evacuation to the continental United States support base. Army Techniques Publication 4-02.6, *The Medical Company (Role 2)* will focus on the Army Health System support operations from the Role 1 medical treatment facility through the Role 2 medical treatment facility and initiating evacuation to the Role 3 MTF. For information on casualty response at point of injury to Army Health System support operations at the casualty collection point, refer to TC 4-02.1. For information on the employment of the medical platoon and Army Health System support operations from the casualty collection point to Role 1 MTF, refer to ATP 4-02.4. For information on theater hospitalization and Army Health System operations at a Role 3 medical treatment facilities, refer to ATP 4-02.10.

The medical company is a unit assigned to multiple types of brigade combat teams or in support of division and corps support areas. Each medical company possesses similar capabilities and functions but applies them in vastly different manners. To clearly delineate these types of units and to detail the Army Health System support these medical companies provide to the various types of military operations, this publication contains ten chapters and seven appendices:

Chapter 1 provides an overview of the Army Health System. This chapter will discuss Army operations doctrine, an overview the Army Health System and its mission, the warfighting functions and Army Health System medical functions, a discussion on eligibility of care determination, and global health engagements.

Chapter 2 provides an overview of the organization and functions of the medical company (Role 2). This chapter will discuss the medical company, brigade support, medical company (area support), the medical company, multidomain task force and the organization and functions of the Role 2's subordinate elements.

Chapter 3 provides discussion on the employment and operation of the medical company (Role 2).

Chapter 4 provides an overview on the Role 2's support to large-scale combat operations. This chapter will discuss conducting Army Health System support for military actions, Role 2 support in specific environments, and the Role 2 support to a forcible entry operations.

Chapter 5 discusses the Role 2's support for the defense consisting of an overview of the defense and those Army Health System support planning considerations for the different defensive operations.

Chapter 6 discusses the Role 2's support for the offense consisting of an overview of the offense and those Army Health System support planning considerations for the different offensive operations.

Chapter 7 discusses the organization and function of the division, the armored brigade combat team, the infantry brigade combat team, and the Stryker brigade combat team. This chapter also discusses the Army Health System support to the brigade combat teams.

Chapter 8 discusses those echelons above brigade enablers, by medical function, that support a Role 2 MTF.

Chapter 9 discusses medical command and control, and it explains the difference between command and control, and the medical function of medical command and control. This chapter provides discussion on how the medical staff officer and sections at echelons above brigade and the brigade combat team utilize medical command and control.

Chapter 10 discusses the medical information systems and how the medical communications for combat casualty care system is employed.

Appendix A provides discussion on Army Health System support estimates, planning, and rehearsals.

Appendix B discusses mass casualty operations.

Appendix C provides examples and discussion on records, reports, and planning tools.

Appendix D discusses the management of ground evacuation operations.

Appendix E discusses telementoring and teleconsultation tactics, techniques, and procedures.

Appendix F discusses the compliance, classification, management, and disposal of nonhazardous, hazardous, and regulated medical waste.

Appendix G discusses medical training considerations for medical and nonmedical personnel.

Chapter 1
The Army Health System

The Army Health System (AHS) is a component of the Department of Defense (DOD) Military Health System. Although the Military Health System is an interrelated system, which may share medical services, capabilities, and specialties among the U.S. Service components, it is not a joint command and control (C2) system. Each Service component develops its medical resources to support its Service-specific mission. This results in the development of different types of organizations with varying levels of capability, mobility, and survivability. Although joint medical resources may have similar nomenclature to describe the unit, they are not usually interchangeable. For information on Joint Health Services, refer to JP 4-02.

SECTION I – ARMY OPERATIONS DOCTRINE

1-1. Field Manual 3-0 expresses how the Army expects forces to operate while allowing for boldness, creativity, and initiative. It guides the conduct of campaigns, major operations, battles, and engagements in conjunction with other Services and allied forces. Army forces achieve objectives through the conduct of operations. Operations occur in all kinds of physical environments, including urban, subterranean, desert, jungle, mountain, maritime, and arctic.

1-2. Operations encompass strategic deployment, operational movement, lodgment, and operational maneuver. This publication provides information on the Army's operational concept and operational guiding principles. It explains how concepts, principles, functions, and operating systems combine to enable units to execute categories of operations. Field Manual 4-02 is the capstone manual for operational medicine and explains the purpose of the AHS in its support of Army operations. It is the primary guide for obtaining and providing AHS for the theater of operations (TO).

1-3. The Army accomplishes its mission by supporting the joint force in four strategic roles: shape operational environment (OE), prevent conflict, prevail in large-scale ground combat operations, and consolidate gains. The benchmark for Army readiness is its ability to conduct large-scale combat operations (LSCO) fighting a near-peer or peer enemy with potential overmatch across multiple domains.

1-4. A multidomain approach to operations is not new. Army forces have effectively integrated capabilities and synchronized actions in the air, land, maritime, space and cyberspace domains for decades. Rapid and continued advances in technology and the military application of new technologies to the space and cyberspace domain require special consideration in planning and converging effects from across all domains. For more information on operations, refer to FM 3-0.

1-5. Geographic combatant commanders are assigned a geographic area of responsibility (AOR) by the President with the advice of Secretary of Defense. The *area of responsibility* is the geographical area associated with a combatant command within which a geographic combatant commander has authority to plan and conduct operations (JP 1, Volume 1). The *area of operations* is an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0). Area of operations (AO) do not typically encompass the entire AOR of the Joint Force Command but should be large enough for the component commander to accomplish their mission. Component commanders with AOs typically designate subordinate AOs within their assigned area which their subordinate forces operate; medical companies operate within these assigned areas.

1-6. In their assigned areas, Army commanders designate deep, close, rear, and support areas to describe the physical arrangement of forces in time, space, and focus. These areas are typically defined by the boundaries assigned by the higher echelon headquarters. A *boundary* is a line that delineates surface areas for the purpose of facilitating coordination and deconfliction of operations between adjacent units, formations, or areas (JP 3-0). Boundaries may require adjustment based on actual and projected rates of maneuver or changes to the situation.

1-7. The *deep area* is where the commander sets conditions for future success in close combat (ADP 3-0). The *close area* is the portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat (ADP 3-0). The rear area is that area in a unit's AO extending forward from its rear boundary to the rear boundary of the area assigned to the next lower level of command. It is an area where most forces and assets locate that support and sustain forces in the close area. Rear operations include—

- Security.
- Sustainment.
- Terrain management.
- Movement control.
- Protection.
- Infrastructure development.

1-8. Like a rear area, Joint Force Commands establish a joint security area. A *joint security area* is a specific area to facilitate protection of joint bases and their connecting lines of communications that support joint operations (JP 3-10). For a detailed description of the areas within a unit AO and the interrelationships of those areas among echelons, refer to FM 3-94.

Note. The area encompassed by the division rear area is often referred to as echelons above brigade (EAB).

SECTION II – OVERVIEW OF THE ARMY HEALTH SYSTEM

1-9. The *Army Health System* is a component of the Military Health System that is responsible for operational management of the health service support and force health protection missions for training, predeployment, deployment, and postdeployment operations. The AHS includes all mission support services performed, provided, or arranged by Army Medicine to support health service support and force health protection mission requirements for the Army and as directed, for joint, intergovernmental agencies, coalition, and multinational forces (FM 4-02). The AHS is composed of the health service support (HSS) and force health protection (FHP) mission components that is interdependent and interrelated and requires continual planning, coordination, and synchronization to clear the battlefield of casualties effectively and efficiently and to provide the highest standard of care to wounded or ill Soldiers. The AHS provides medical management throughout all roles of medical care from the forward edge of the battle area through the continental United States support base.

HEALTH SERVICE SUPPORT MISSION COMPONENT

1-10. The Army *health service support* is the support and services performed, provided, and arranged by Army Medicine to promote, improve, conserve, or restore the behavioral and physical well-being of personnel by providing direct patient care that includes medical treatment (organic and area support) and hospitalization, medical evacuation to include medical regulating, and medical logistics to include blood management (FM 4-02). The AHS HSS includes the treatment of chemical, biological, radiological, and nuclear (CBRN) patients. The Army HSS is one of the mission components of the AHS. It is aligned under the sustainment warfighting function (figure 1-1 on page 1-3).

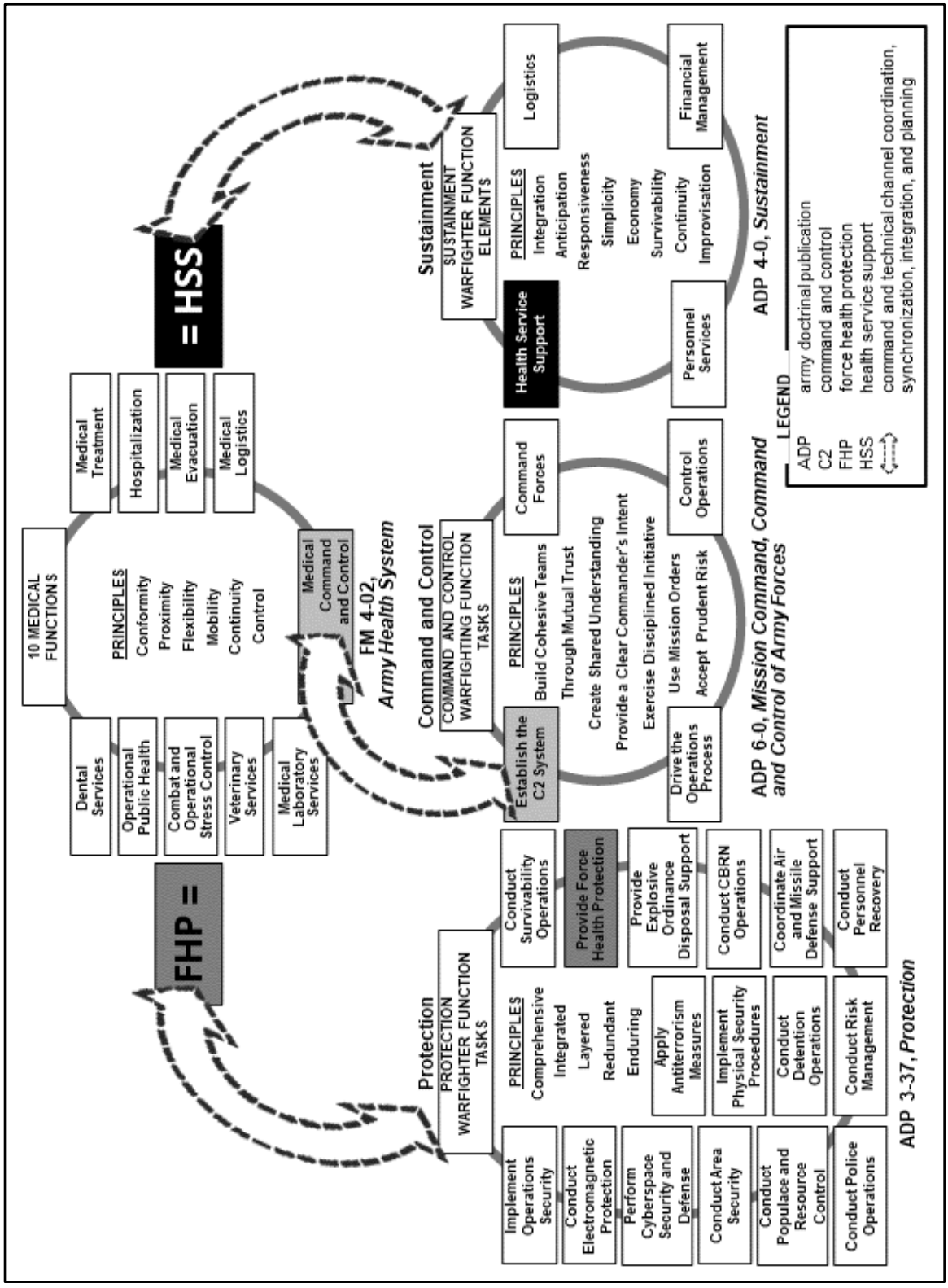

Figure 1-1. Army Health System synchronization with Army warfighting functions

FORCE HEALTH PROTECTION MISSION COMPONENT

1-11. The Army *force health protection* are measures that promote, improve, or conserve the behavioral or physical well-being of Soldiers comprised of preventive and treatment aspects of medical functions that include: combat and operational stress control (COSC), dental services, veterinary services, operational public health, and laboratory services. Enabling a healthy and fit force, prevent injury and illness, and protect the force from health hazards (FM 4-02). Force health protection is one of the mission components of the AHS. It is aligned under the protection warfighting function (figure 1-1 on page 1-3).

MISSION OF THE ARMY HEALTH SYSTEM

1-12. The AHS mission—to conserve the fighting strength—dictates that a ready medical force with allocated Class VIII (medical supplies and equipment) can collect casualties, sort (triage), treat, identify as return to duty (RTD) or nonreturn to duty patients as far forward as possible, and medically evacuate through the continuum of care as needed. Additionally, AHS resources must be employed to provide the greatest benefit to the maximum number of personnel in support of the combat mission.

1-13. The accomplishment of this mission is dependent on the AHS support plan and the synchronization of the AHS. Synchronization means more than just coordinated action. It results from an all-prevailing unity of effort throughout the force. The action of each element within a command must flow from an understanding of the higher commander's concept and intent.

1-14. The AHS support plan is the primary vehicle for providing the AHS operational information required to support the commander's tactical plan. It is important that casualty classification and treatment category be fully understood. A *casualty* is any person who is lost to the organization by having been declared dead, duty status—whereabouts unknown, missing, ill, or injured (JP 4-02). The casualty classification is given to a Soldier prior to treatment by medical personnel. A Soldier who is wounded and conducts either self-aid or are given treatment by a combat lifesaver (CLS) is still classified as a casualty. That Soldier is then moved to a casualty collection point (CCP) where medical personnel conduct triage and treatment of that casualty. The Soldier is now classified as a patient and enters the roles of medical care. A *patient* is a sick, injured or wounded Soldier who receives medical care or treatment from medically trained personnel (FM 4-02). *Triage* is the process of sorting casualties based on need for treatment, evacuation, and available resources (FM 4-02).

Note. All patients have been a casualty, while not all casualties become patients.

MEDICAL FUNCTIONS OF THE ARMY HEALTH SYSTEM

1-15. The AHS encompasses all of the medical functions within Army Medicine and is a complex system of systems and organized into ten medical functions (figure 1-2 on page 1-5). The AHS medical functions align with medical disciplines and scientific knowledge with the FHP medical functions grouped under the protection warfighting function and the HSS medical functions grouped under the sustainment warfighting function.

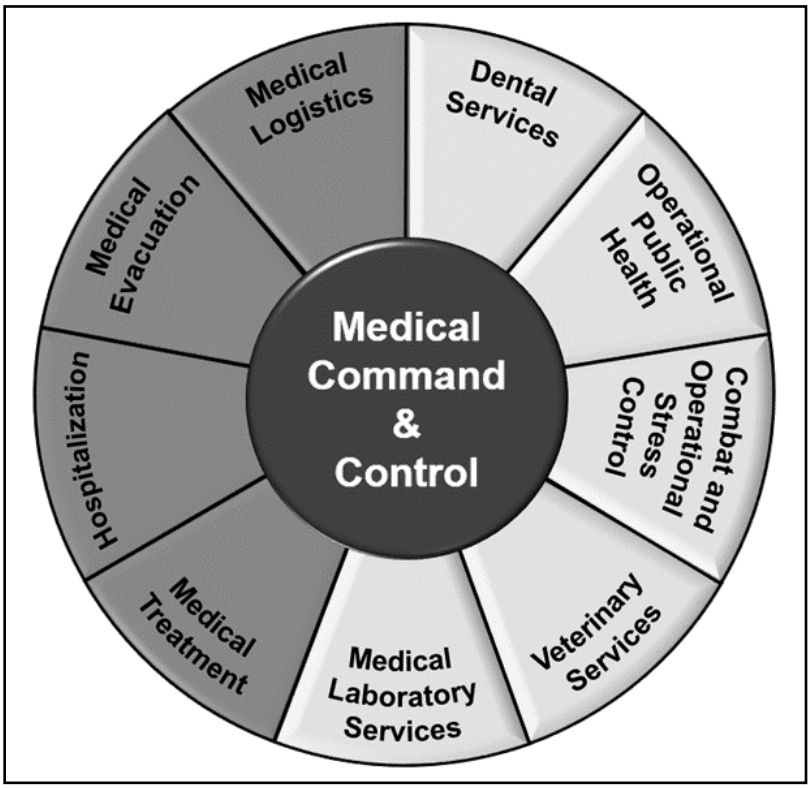

Figure 1-2. Medical functions of the Army Health System

1-16. Within the division, the full spectrum of services is provided by a combination of assigned and attached AHS support resources. These systems are interrelated and interdependent and must be meticulously and continuously synchronized to reduce morbidity and mortality and to maximize patient outcome.

1-17. These medical functions are complex in nature and require medical command and control for synchronization and integration. This ensures the interrelationships and interoperability of all medical assets and optimizes the effective functioning of the entire system. The medical command and control is not grouped under the C2 warfighting function; however, it is functionally aligned with the C2 function.

1-18. The AHS medical functions are in consonance with joint doctrine, as described in JP 4-02. The U.S. Army is aligned with the Joint Health Services in grouping these medical functions. For more information on the AHS medical functions and the AHS operational framework, refer to FM 4-02. For more information on the Army operational framework, refer to ADP 3-0 and FM 3-0.

PRINCIPLES OF THE ARMY HEALTH SYSTEM

1-19. The AHS principles of control, conformity, proximity, flexibility, mobility, and continuity are the foundation (enduring fundamentals) upon which the delivery of health care in an OE is founded. Figure 1-3 on page 1-6 depicts the AHS principles. For further discussion on the AHS principles, refer to FM 4-02.

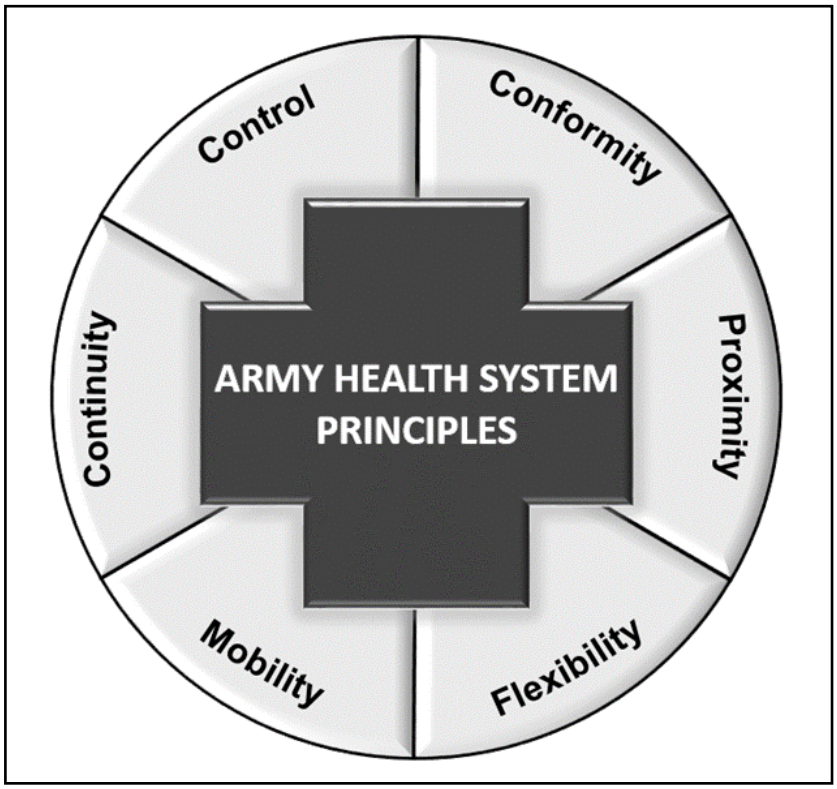

Figure 1-3. Principles of the Army Health System

1-20. The AHS principles apply across all medical functions. The medical functions are synchronized, coordinated, and integrated using the medical command and control medical function. For additional information on the AHS medical functions, refer to paragraph 1-18 on page 1-5.

The following topic is in consonance with ABCANZ standard 2121.

TACTICAL COMBAT CASUALTY CARE

1-21. Tactical combat casualty care (TCCC) is most commonly provided by enlisted personnel and includes Tier 1—all Soldier skills, Tier 2—CLS skills, Tier 3—combat medic skills, and Tier 4—critical care flight paramedics in the Army and credentialed providers. Department of Defense Instruction 1322.24 develops a standardized combat casualty care instruction for all Service members, including the use of standardized trauma training platforms.

1-22. 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. Tactical combat casualty care is divided into the three phases: care under fire, tactical field care, and tactical evacuation care. Tactical combat casualty care occurs during a combat mission and is the military counterpart to prehospital emergency medical treatment. For more information on TCCC, refer to TC 4-02.1.

1-23. Nonmedical personnel performing TCCC procedures assist the combat medics in their duties. Initial TCCC is administered by an individual (self-aid or buddy aid), and advanced TCCC skills are provided by the CLSs. A CLS is a nonmedical Soldier of a unit trained to provide enhanced first aid as a secondary mission (FM 4-02). Normally, one member of each squad, team, or crew is trained. For more information on casualty response by nonmedical personnel, refer to TC 4-02.1.

ROLES OF MEDICAL CARE

1-24. Roles of medical care describe the four levels of treatment within the AHS. Each role has the same capabilities as the role before it but adds a new treatment capability that distinguishes it from the previous role. For a complete discussion on the roles of medical care, refer to FM 4-02.

ROLE 1

1-25. The first medical care a Soldier receives is provided at Role 1 (also referred to as unit-level medical care). This role of care includes—

- Immediate lifesaving measures.
- Disease and nonbattle injury (DNBI) prevention.
- Combat and operational stress preventive measures.
- Patient location and acquisition (collection).
- Medical evacuation from supported units (point of injury or wounding, company aid posts, or casualty or patient collection points) to supporting medical treatment facilities (MTFs).
- Treatment provided by designated combat medics or treatment squads.

1-26. Major emphasis is placed on those measures necessary for the patients to RTD or to stabilize them and allow for their evacuation to the next role of care. *Return to duty* refers to a patient disposition which, after medical evaluation and treatment when necessary, returns a Soldier for duty in his unit (FM 4-02). These measures include maintaining the airway, stopping bleeding, preventing shock, protecting wounds, immobilizing fractures, and other emergency measures, as indicated.

1-27. Role 1 medical treatment is provided by the combat medic or flight paramedic during air evacuation or by the physician, the physician assistant (PA), or the health care specialist in the battalion aid station (BAS) or Role 1 MTF. *Emergency medical treatment* refers to the immediate application of medical procedures to the wounded, injured, or sick by specially trained medical personnel (FM 4-02). In Army special operations forces, Role 1 treatment is provided by special operations combat medics, special forces medical sergeants, or physicians and PAs at forward operating bases, special forces operating bases, or in joint special operations task forces.

1-28. Tactical combat casualty care (immediate far forward care) consists of those lifesaving steps that do not require the knowledge and skills of a physician. The combat medic is the first individual in the medical chain that makes medically substantiated decisions based on medical military occupational specialty-specific training.

1-29. At the BAS, the physician and the PA are trained and equipped to provide TCCC to the combat casualty. This element also conducts routine sick call when the operational situation permits. Like elements provide this role of medical care at brigade and EAB.

1-30. During medical evacuations (MEDEVACs), Role 1 treatment is provided by the combat medic (during ground evacuation) or by the critical care flight paramedic (during air evacuation) to an MTF. *Medical evacuation* is the timely and effective movement of the wounded, injured, or ill to and between medical treatment facilities on dedicated and properly marked medical platforms with en route care provided by medical personnel (ATP 4-02.2). Critical care flight paramedics are trained and equipped to provide advanced en route care to the combat casualty

1-31. When Role 1 medical care is not present in a unit, this support is provided to that unit by Role 2 medical units. For further information on the employment and functions of a Role 1 MTF, refer to ATP 4-02.4.

The following paragraphs implement STANAG 2228.

ROLE 2

1-32. Role 2 care is defined in STANAG 2228 and FM 4-02. Leaders must understand the difference between the definitions and description. Additionally, the United State has recorded specific reservations to AJP-4.10. For the record of reservations, refer to AJP-4.10.

Allied and Joint Definition of Role 2

1-33. In AJP-4.10, the Role 2 of military health care is described as encompassing a set of military health care capabilities, which enhances the resuscitative spectrum of the Role 1 MTF by capabilities essential to preserve life, limb, and function and stabilize the patient's condition for further transport and treatment. The AJP-4.10 Role 2 description is further delineated as Role 2 forward, Role 2 basic, and Role 2 enhanced.

1-34. Role 2 forward military health care capabilities are highly mobile and deployable into remote, austere, or unsecure tactical environments enabling forward projected resuscitative and surgical treatment to control bleeding, maintain circulation, restore perfusion, and preserve life, limb, and function. Role 2 forward capabilities may also be deployed to augment or to enhance other medical capabilities in theater.

1-35. Role 2 forward capabilities comprise triage, essential diagnostics, damage control resuscitation and damage control surgery. Their resources are limited. If not enhancing or augmenting other medical support capabilities that include patient holding and postoperative care, Role 2 forward capabilities rely on immediate MEDEVAC and resupply after treatment.

1-36. Role 2 basic capabilities enable life, limb, and function preserving resuscitative and surgical interventions. Role 2 basic capabilities may operate highly mobile, afloat or land-based and comprise triage, essential diagnostics, damage control resuscitation and damage control surgery, short-term postoperative critical care, limited patient holding and medical supply. Role 2 basic capabilities may also be deployed to augment or to enhance other medical capabilities in theater.

1-37. Role 2 enhanced capabilities may provide diagnostic, specialist, and hospital care essential to stabilize and prepare patients for strategic evacuation. In addition to the capabilities of a Role 2 basic, this includes but is not limited to surgery, x-ray, laboratory, blood bank, pharmacy, and sterilization.

United States Army Definition of Role 2

1-38. The U.S. Army Role 2 duplicates Role 1 and expands services available by adding dental, laboratory, x-ray, and patient holding capabilities. At the Role 2, the patients are examined, and their wounds and general medical condition are evaluated to determine their treatment and evacuation precedence. Tier 3 and Tier 4 TCCC skills, including beginning resuscitation procedures, are continued. General anesthesia is not available. For more information of TCCC tiers, see paragraph 1-21 on page 1-6. If necessary, additional emergency measures are instituted; however, they do not go beyond the measures dictated by the immediate needs. Those patients who can RTD within one to three days are held for treatment, and all others are evacuated to the next higher role of care.

1-39. Role 2 health care is provided by the brigade support medical company (BSMC), medical company (area support) (MCAS), or the multi-domain task force medical company (MDMC). These units are usually located in the support areas or troop density area.

Note. In the brigade combat team (BCT), the BSMC Role 2 may also be referred to as "Charlie Med."

1-40. The Role 2 has the capability to store blood products and to provide COSC and, when organized appropriately with operational public health, physical therapy, optometry and pharmacy services. The Role 2 also provides MEDEVAC from Role 1 MTF and provides Role 1 medical support on an area support basis for units without organic medical elements within their AOR.

Note. The structure of the BSMC, MCAS, and MDMC differ slightly. For complete organization capability, refer to each organization's respective authorization documents.

1-41. Patients who are nontransportable due to their medical condition may require resuscitative and surgical care from a forward resuscitative and surgical detachment (FRSD) collocated with a medical company. For more information on the FRSD, refer to ATP 4-02.25. A *nontransportable patient* is a patient whose medical condition is such that he could not survive further evacuation to the rear without surgical intervention to stabilize his medical condition (ATP 4-02.2).

1-42. The U.S. Army subscribes to the basic definition of a Role 2 MTF providing greater resuscitative capability than is available at Role 1 MTF (figure 1-4). The U.S. Army does not subscribe to the interpretation used by AJP-4.10 and JP 4-02 that a surgical capability is mandatory at this role. The U.S. Army will not utilize the terms Role 2 forward, Role 2 basic, Role 2 light maneuver, Role 2 enhanced, or Role 2 plus. The U.S. Army does not provide damage control surgery and does not provide surgical capability at Role 2 unless an FRSD is collocated with the medical company to provide forward surgical intervention.

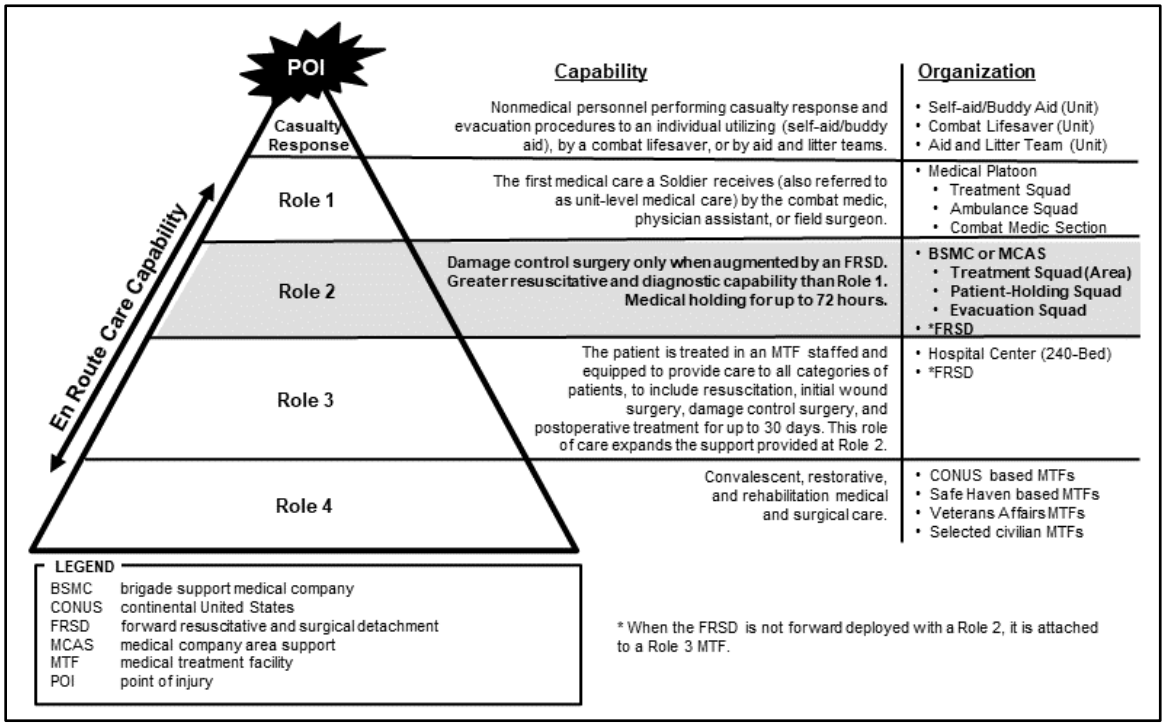

Figure 1-4. Roles of care

1-43. The U.S. Army does not provide damage control surgery and does not provide surgical capability at Role 2 unless a FRSD is attached to the medical company to provide forward surgical intervention. Attaching a FRSD to a Role 2 does not change the role of care of the MTF. It does not make the Role 2 a Role 2 enhanced, or a Role 2 plus. For complete discussion on roles of care and deconfliction with NATO roles of care, refer to FM 4-02.

ROLE 3

1-44. Role 3 expands the support provided at Role 2. At Role 3, the MTF is staffed and equipped to provide all categories of patients with care, including resuscitation, initial wound surgery, damage control surgery, and postoperative treatment. This role of care includes provisions for—

- Coordinating patient evacuation through medical regulating.
- Providing support on an area basis to units without organic medical assets.

1-45. Patients who are unable to tolerate and survive movement over long distances will receive surgical care in a hospital as close to the division rear boundary as the tactical situation will allow. Operational conditions may require Role 3 units to locate in offshore support facilities, third-country support bases, or in the joint security area. For further information on theater hospitalization and employment of a Role 3 MTF, refer to ATP 4-02.10.

ROLE 4

1-46. At Role 4, patients are treated in hospitals staffed and equipped to provide the most definitive medical care available within the AHS. This role of care is provided in hospitals based in the continental United States-based hospitals and other safe havens (to include robust overseas MTFs). The hospitals used to provide this care are not limited to U.S. Army hospitals. If mobilization requires expansion of military hospital capacities, then the Department of Veterans Affairs and civilian hospital beds in the National Disaster Medical System are added to meet the increased demands created by the evacuation of patients from the operational area.

MODULAR MEDICAL SUPPORT SYSTEM

1-47. Army Health System support (Role 1 and Role 2) is provided by a modular medical support system designed to standardize all medical subunits within the division, corps, and EAB. This modular system was derived from the recognition that some common medical functions performed at Role 1 and Role 2 are the same throughout the brigade, division, or corps AO. The structure and functions of the Role 2 units in the BCT and in the EAB are based on this modular support system design.

1-48. This system enables the medical resources manager to rapidly tailor, augment, reinforce, or regenerate AHS support units as needed. This system is designed to acquire, receive, and triage patients, to provide TCCC, and to provide AHS support for personnel in the close, rear, and support areas.

1-49. The modular medical support system includes specialized modules focused on casualty collection, treatment, evacuation, and resuscitative surgery that provide greater flexibility, mobility, and patient care capabilities. These modules include the—

- Combat medic.
- Ambulance squad.
- Medical treatment squad.
- Area support squad.
- Patient holding squad.
- Forward resuscitative and surgical detachment.

COMBAT MEDIC

1-50. The combat medic is equipped with the prescribed load of medical supplies and equipment. Recently combat medics are fielded the Nett Warrior complete with combat medic module for automated 9-Line MEDEVAC, Medical Command and Control, and electronic records. Combat medics are organic to their medical platoon or section of the assigned organization. They are typically placed under the operational control (OPCON) of platoons or companies of maneuver battalions.

1-51. The combat medic is normally allocated to the supported maneuver companies on a basis of one emergency care sergeant per company plus one combat medic per platoon. The medical platoon's emergency care sergeants usually locate with, or near, the maneuver company commander or first sergeant and provide guidance and direction to the subordinate combat medics. Combat medics locate with, or near, their assigned platoon leader or platoon sergeant.

1-52. To foster good interpersonal relations and morale of supported Soldiers, every effort should be made to attach the same combat medic to the same unit supported each time the unit deploys. However, during lulls in operations, the combat medic should return to the medical platoon for consultation and proficiency training. The combat medic must be able to—

- Perform triage and TCCC for the sick and wounded.
- Direct evacuation of patients to the CCP or to the Role 1 MTF.

The following bullet implements ABCANZ standard 2136.

- Initiate a DD Form 1380 (*Tactical Combat Casualty Care [TCCC] Card*) for the sick and wounded and, as time permits, for deceased personnel.
- Screen, evaluate, and treat within the combat medic's capabilities those patients suffering minor illnesses and injuries.
- Inform the company commander, battalion surgeon, and medical platoon leader on matters pertaining to the health and welfare of the Soldiers.
- Manage Class VIII resupply for the unit's CLS, vehicle first aid kits, and warrior aid and litter kits.
- Maintain enough medical supplies to support the tactical situation.
- Advise the commander and supervise unit personnel on matters of personal hygiene and field sanitation.
- Develop and maintain Soldier and TCCC skills.

AMBULANCE SQUAD

1-53. An ambulance squad consists of two ambulance teams with each team containing two or three combat medic specialists, depending on the unit of assignment, and one ambulance. Ambulance squads are organic to—

- Medical platoons or sections in combat battalions.
- Select combat support units.
- Brigade support medical company (BSMC).
- Medical company ground ambulance.
- Medical company (area support) (MCAS).

1-54. The ambulance squad provides evacuation of patients and ensures the continuity of care en route. The squads are in the brigade support area (BSA), division support area, corps support area, and in EAB units. Ambulance squads provide direct support (DS) for MEDEVAC, or they provide MEDEVAC on an area support basis throughout the TO. The ambulance teams of a maneuver battalion's medical platoon are placed in DS of a maneuver company or are collocated with the Role 1 MTF. In the DS role, the ambulance team also performs the duties of a combat medic. When collocated with a MTF, the ambulance teams are dispatched from the MTF to reinforce medical personnel in DS or to evacuate patients from units on an area support basis.

Note. The ambulance squad in the MCAS consists of four combat medic specialists and two ambulances (two ambulance teams).

MEDICAL TREATMENT SQUAD

1-55. The medical treatment squad consists of a primary care physician, a PA, two health care noncommissioned officers (NCOs), and four combat medic specialists. The squad is trained and equipped to provide TCCC to the battlefield casualty or to treat and return the patient to duty. To maintain contact with the combat maneuver elements, each squad has two vehicles equipped with medical equipment sets (MESs). Each squad can split into two trauma treatment teams, an A-team (which has the physician) and B-team (which has the PA). These squads are organic to medical platoons or sections in maneuver battalions and designated support units and medical companies of separate brigades, armored cavalry regiments, divisions, and EAB medical companies. Medical treatment squads may be employed anywhere on the battlefield. When not engaged in TCCC, the medical treatment squad provides routine sick call services on an area basis.

AREA SUPPORT SQUAD

1-56. The area support squad is composed of dental, radiology, and medical laboratory capabilities. This squad is organic to divisional and nondivisional medical companies, troops, and detachments that possess a Role 2 capability. The dental officer is advanced trauma management trained and may provide triage and additional treatment capabilities to the Role 2 during peak patient loads.

Note. The area support squad of the BSMC has additional physical therapy personnel.

PATIENT HOLDING SQUAD

1-57. The patient holding squad consists of a medical-surgical nurse, two health care NCOs, and two combat medic specialists. It can hold and providing minimal care for up to 20 (40 in the MCAS) RTD patients or patients awaiting further evacuation for 72 hours. This squad is organic to all divisional and nondivisional medical companies.

Note. When the medical treatment squad (area) or area support medical treatment squad, the area support squad, and the patient holding squad are collocated, they form the Role 2 MTF. The Role 2 provides AHS on an area basis to all forces within a geographical AOR. The Role 2 normally operates in the BSA, the division support area, and areas of high troop concentration in the corps support area. The area support and patient holding squads are not capable of independent operations.

MEDICAL DETACHMENT, FORWARD RESUSCITATIVE AND SURGICAL

1-58. The FRSD is assigned to a theater medical command (TMC) or a medical brigade (support) (MEDBDE [SPT]) and attached to a Role 3 MTF when not operationally employed and further attached to a Role 2 medical company. The FRSD provides a rapidly deployable, immediate surgery capability enabling patients to withstand further evacuation. It provides surgical support in the division, separate brigades, or cavalry regiment AO where the requirement to project surgery forward increases because of the extended battlefield. This small, lightweight surgical detachment is designed to complement and augment emergency treatment capabilities for the brigade-sized task force. The FRSD is a 20-person unit with clinically standard modules organized into four functional areas:

- Triage-trauma management.
- Surgery.
- Recovery.
- Administration and operations.

1-59. The FRSD provides initial surgery for those critically injured patients who cannot be transported over great distances without surgical intervention and stabilization. For definitive information on the FRSD, refer to ATP 4-02.25.

1-60. The FRSD is normally attached to the supporting medical company's higher headquarters and collocates with the Role 2 MTF. The FRSD coordinates through the supported medical company for general support, such as Class I, II, III, and VIII resupply. For additional information on classes of supply, refer to FM 4-0. The FRSD also coordinates through the medical company for its security and redeployment.

ARMY HEALTH SYSTEM SUPPORT ESTIMATES AND PLANNING

1-61. Army Health System support planning is an intricate process that enables the medical unit commander or command surgeon to develop the most effective and flexible plan for providing AHS support to the tactical commander. The AHS support plan is derived from AHS support estimate.

1-62. To develop the AHS support estimate and support plan, the AHS support planner obtains updated medical intelligence through intelligence and other channels. *Medical intelligence* is that category of

intelligence resulting from collection, evaluation, analysis, and interpretation of foreign medical, bio-scientific, and environmental information that is of interest to strategic planning and to military medical planning and operations for the conservation of the fighting strength of friendly forces and the formation of assessments of foreign medical capabilities in both military and civilian sectors (JP 2-0). National Center for Medical Intelligence is the DOD lead activity to produce medical intelligence and will prepare and coordinate integrated, all-source intelligence for the DOD on foreign health threats and other medical issues to protect U.S. interests worldwide. For additional information on the role of the National Center for Medical Intelligence, refer to DODI 6420.01. For more information on AHS support estimates and planning, refer to appendix A. For more information on the medical aspects of intelligence preparation of the battlefield, refer to FM 4-02 or ATP 2-01.3.

SECTION III – ELIGIBILITY OF CARE DETERMINATION

1-63. During LSCO in a multidomain environment, one of the most pressing questions is who is eligible for care in a U.S. Army-established MTF and what extent of care is authorized. Numerous categories of personnel seek care in U.S. facilities located in austere areas where the host-nation civilian medical infrastructure provides insufficient, inadequate, or inferior care compared to western medicine. A determination of eligibility and whether reimbursement for services is required is made at the highest level possible in consultation with the supporting staff judge advocate.

1-64. Department of State and other military staff sections may also need to be involved in the determination process. Each operation is unique, and the authorization for care is based on the appropriate U.S. and international law or policies. Other factors affecting the determination of eligibility are command guidance, practical humanitarian and medical ethics considerations, availability of U.S. medical assets (in relationship to the threat faced by the force), and the potential training opportunities for medical forces. For further discussion on eligibility of care determination, refer to FM 4-02.

SECTION IV – GLOBAL HEALTH ENGAGEMENT

1-65. Department of Defense Instruction 2000.30 directs the DOD to conduct global health engagement activities in support of U.S. national security policy and defense cooperation strategy. The United States Government will use the full spectrum of DOD health capabilities to execute and support—

- Force Health Protection (DODD 6200.04).
- Foreign Humanitarian Assistance (JP 3-29).
- Foreign Disaster Relief (DODD 5100.46).
- Humanitarian and Civic Assistance (HCA) Activities (DODI 2205.02).
- Department of Defense Countering Weapons of Mass Destruction (WMD) Policy (DODD 2060.02).
- Stability Operations (DODD 3000.05).
- Department of Defense Veterinary Public and Animal Health Services (DODD 6400.04E).
- Department of Defense Policy and Responsibilities Relating to Security Cooperation (DODD 5132.03).

1-66. For more information and resources on global health engagement, refer to FM 4-02. These health capabilities will be leveraged in military-to-military, military-to-civilian, or multilateral global health engagement activities as tools to—

- Promote and enhance partner nation's stability and security.
- Develop military and civilian partner nation capacity.
- Build trust, confidence, and resilience.
- Share information.
- Coordinate mutual activities.
- Maintain influence to enable implementation of the guidance for the employment of the force and to support the achievement of United States Government national security objectives.

- Enhance DOD's awareness of global health engagement and improve its relationship and interoperability with each partner nation to achieve security cooperation objectives.
- Develop and improve the human and animal health capabilities and capacities of DOD and partner nation personnel.

Chapter 2

Organization and Functions of the Medical Company (Role 2)

Several medical companies are organized to provide AHS support to the combatant commander. The mission, assignment, capability, basic organization, and dependency of all medical companies is developed utilizing the modular medical support system. This chapter will focus on those medical companies that provide Role 2 AHS support.

SECTION I – MEDICAL COMPANY, BRIGADE SUPPORT

2-1. The information in this section is based upon the BSMC, armored brigade combat team (ABCT) table of organization and equipment (TOE). There may be differences with the medical companies in the infantry brigade combat team (IBCT), Stryker brigade combat team (SBCT), and the multi-domain task force. Any significant differences will be highlighted. The mission remains the same for all AHS support units, and they execute their mission in a similar fashion. The specific organization's modified TOE should be referenced for a complete understanding of the organization's operational and administrative information.

MISSION

2-2. The BSMC provides Role 2 medical care to supported maneuver battalions with organic medical platoons. The BSMC provides Role 1 and Role 2 medical treatment on an area basis to those units without organic medical assets operating in the BSA. The BSMC may deploy their treatment teams forward from the company for limited periods of time.

ASSIGNMENT

2-3. The BSMC is organic to the brigade support battalion (BSB) in the IBCT, ABCT, and SBCT. The BSMC may be organic to the BSB; however, it is a BCT asset.

DEPENDENCIES

2-4. The BSMC is dependent upon organizations organic to the BCTs and elements outside of the BCT, such as supporting theater organizations, the TMC, MEDBDE (SPT) the multifunctional medical battalion (MMB), and other appropriate elements according to the mission, operations, and the OE for EAB support. The medical company is dependent upon—

- Appropriate elements within the theater for religious, legal, finance, and personnel and administrative services.
- The headquarters and headquarters company, BSB for food service support, religious support, unit administration, and petroleum, oils, and lubricants.
- The field maintenance company, BSB for field maintenance of all organic equipment (less medical).
- The distribution company, BSB for supply support (less medical).
- The medical logistics company (MLC) for optometry, medical resupply, and medical device maintenance and repair.
- The blood support detachment for blood support.

- The FRSD for surgical augmentation.
- The forward support medical evacuation platoon (FSMP) from the medical company air ambulance (MCAA) for timely aeromedical evacuation (AE) within the BCT area of operation.

EMPLOYMENT AND BASIS OF ALLOCATION

2-5. The BSMC is normally located in the BSA. It provides Role 1 and Role 2 medical support and has treatment teams that can operate independently from the company for limited periods of time. One BSMC is allocated to each BSB of a BCT.

CAPABILITIES

2-6. Each BSMC is organized to provide triage and management of mass casualty (MASCAL), TCCC, initial resuscitation and stabilization, care for patients with DNBI, and battle wounded and injured Soldiers. The BSMC also provides intervention for combat and operational stress reaction (COSR) and preparation of patients for further MEDEVAC.

2-7. The BSMC establishes the Role 2 in the BCT's AO, and its capabilities include—

- Command and control of attached units, which includes medical planning and coordination of patient movement within and outside the brigade.
- Treatment of patients with DNBI and battle fatigue, as well as triage of MASCAL, TCCC, initial resuscitation and stabilization, and preparation for further evacuation of patients incapable of returning to duty.
- Ground evacuation for patients from Role 1 MTF and designated collecting points to the BSMC.
- Operational dental care that consists of emergency and essential dental care designed to circumvent potential dental emergencies.
- Class VIII supply and resupply to units in the brigade area.
- Field-level medical device maintenance.
- Medical laboratory and radiology services commensurate with Role 2 MTF.
- Outpatient consultation services for patients referred from Role 1 MTFs.
- Patient holding for up to 20 patients able to RTD within 72 hours.
- Limited reinforcement and augmentation to supported maneuver battalion medical platoons.
- Regeneration of severely attritted BASs.
- Medical treatment squads capable of operating independently for limited periods of time provide TCCC and sick call as required. A medical treatment squad can break down into two treatment teams, which can operate independently for limited periods of time.
- Operational public health support and consultation in the areas of health surveillance (inclusive of medical and DNBI surveillance), OEH surveillance (inclusive of OEH risk management and site assessments), disease vectors and pest management, water management, food protection, waste management, operational hearing services, and field hygiene and sanitation (inclusive of climatic injury prevention). For more information on occupational and environmental health site assessment, refer to ATP 4-02.82.
- Combat and operational stress control program for the prevention, triage, and treatment of COSR to maximize rapid RTD.
- Individual weapons for personal defense and protection of the patients under their care.

3-8. The TOE of the SBCT medical company capabilities include—

- Providing current information concerning the medical aspects of the AHS support situation to higher command elements.
- Developing, preparing, and coordinating with the brigade surgeon's section on the medical portion of the BCT's plans and policies.
- Allocating medical resources (personnel and equipment) to ensure adequacy of medical treatment to all units operating in the BCT's AO.

- Providing consultation and advice in the areas of environmental sanitation, epidemiology, sanitary engineering, and pest management services.
- Providing COSC programs for the prevention, triage, and treatment of COSR to maximize rapid RTD and prevent posttraumatic stress disorders.
- Providing medical logistics (MEDLOG) support to include medical device maintenance and blood support to the BCT on an area support basis. (The medical supply section maintains an authorized stockage level of Class VIII medical materiel.).

MOBILITY AND ORGANIZATIONAL STRUCTURE

2-9. The BSMC requires 100 percent mobility of its TOE equipment to be transported in a single lift using its organic vehicles. The BSMC is organized into six main subordinate elements with each subordinate element contributing to the BSMC's role as a Role 2 (figure 2-1). The subordinate elements of the BSMC are the—

- Company headquarters.
- Treatment platoon.
- Evacuation platoon.
- Mental health section.
- Preventive medicine section.
- Brigade medical supply office.

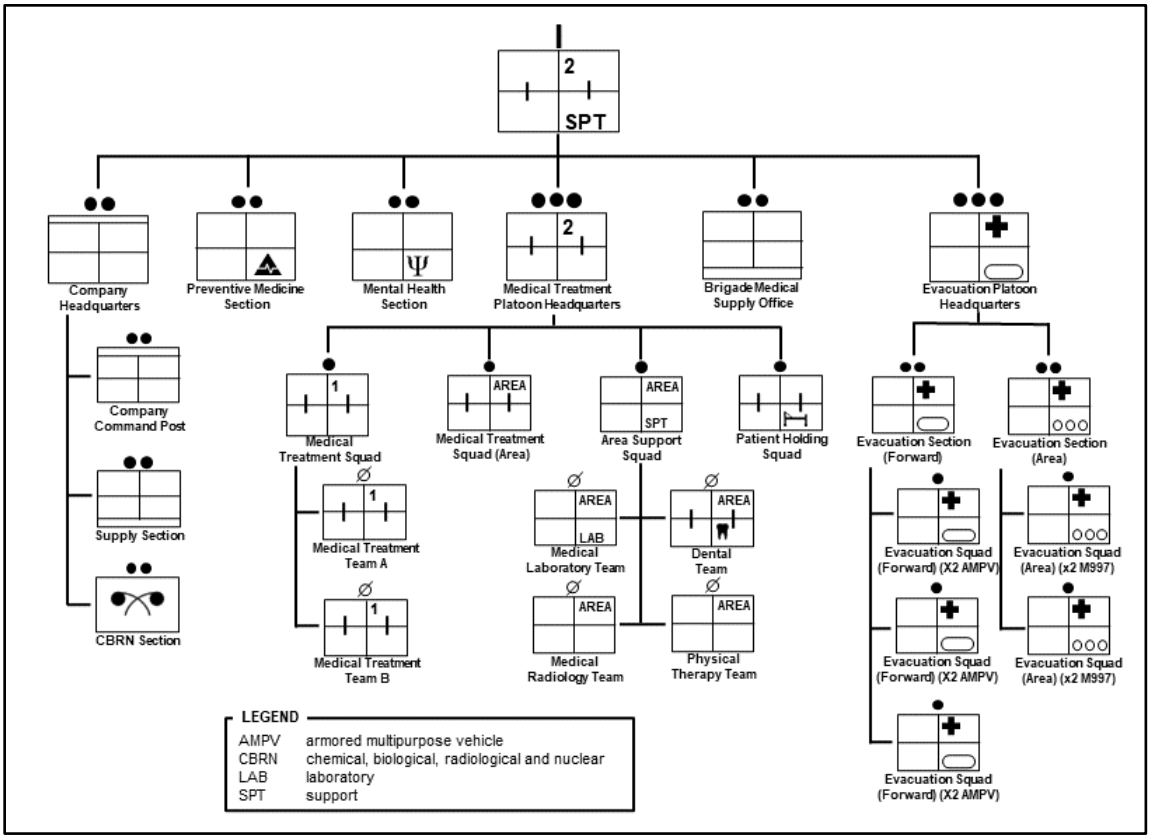

Figure 2-1. Organizational structure of the medical company brigade support, armored brigade combat team

2-10. The SBCT TOE, Section I, does not have a separate paragraph and line number to identify the brigade medical supply office (BMSO). In the SBCT, the MEDLOG personnel performing the BMSO mission are in the company headquarters.

2-11. The naming convention of a preventive medicine (PVNTMED) unit remains the same, such as "preventive medicine section" as seen in figure 2-1 on page 2-3. However, the new term for the operational mission of any PVNTMED organization has now been replaced with "operational public health."

SECTION II – MEDICAL COMPANY, AREA SUPPORT

2-12. The information in this section is based upon the MCAS TOE. The specific organization's modified TOE should be referenced for a complete understanding of the organization's operational and administrative information.

MISSION

2-13. The MCAS provides Role 1 and Role 2 AHS support to units on an area support basis. It provides clinical, medical, and technical consultative services as required.

ASSIGNMENT

2-14. The MCAS is assigned to the MMB. Although the MCAS is assigned to the MMB, it is an EAB medical enabler and may be further task-organized as DS to a BCT.

DEPENDENCIES

2-15. The MCAS is dependent upon organizations for—

- Religious support.
- Legal support.
- Force health protection support.
- Finance support.
- Personnel and administrative services support.
- Field feeding support.

EMPLOYMENT AND BASIS OF ALLOCATION

2-16. The MCAS is employed with the MMB and is primarily at EAB. It provides area FHP for designated non-BCT units. One MCAS is allocated for every 10,000 non-BCT troops supported in the committed brigade, division, corps, or Army Service component command.

CAPABILITIES

2-17. The MCAS provides—

- Treatment of patients with disease and minor injuries, triage of MASCAL initial resuscitation and stabilization, TCCC, and preparation for further evacuation of ill, injured, and wounded patients who are incapable of returning to duty within 72 hours.
- Medical treatment squads capable of operating independently of the MCAS for limited periods of time.
- Evacuation of patients from units within the MCAS's AO to the area support medical treatment squad of the MCAS.
- Emergency medical supply and resupply to units operating within the AO of the MCAS.
- Behavioral health consultation and education support to include coordinating operations of attached COSC elements operating within the MCAS AO.
- Pharmacy, laboratory, and radiological services commensurate with Role 2 medical treatment.

- Operational dental care to include emergency dental, stabilization of maxillofacial injuries, and essential care designed to prevent and manage potential dental emergencies.
- Patient holding for up to 40 patients per MCAS.
- Outpatient consultation services for patients referred from units with only Role 1 capabilities.
- Individuals of this organization can assist in the coordinated defense of the unit's area or installation.

2-18. The MCAS does not perform field maintenance on organic equipment (including communications security equipment) except for medical devices. The biomedical equipment specialist will perform limited maintenance on the unit's organic medical devices. The remaining maintenance personnel will augment the maintenance capability of the unit that performs field maintenance on the unit's organic vehicles and power equipment.

MOBILITY AND ORGANIZATIONAL STRUCTURE

2-19. The MCAS requires 100 percent mobility of its TOE equipment to be transported in a single lift using organic vehicles. The MCAS is organized into four main subordinate elements with each subordinate element contributing to the MCAS role as a Role 2 (figure 2-2). The subordinate elements of the MCAS are—

- Company headquarters.
- Mental health section.
- Medical treatment platoon.
- Medical evacuation platoon.

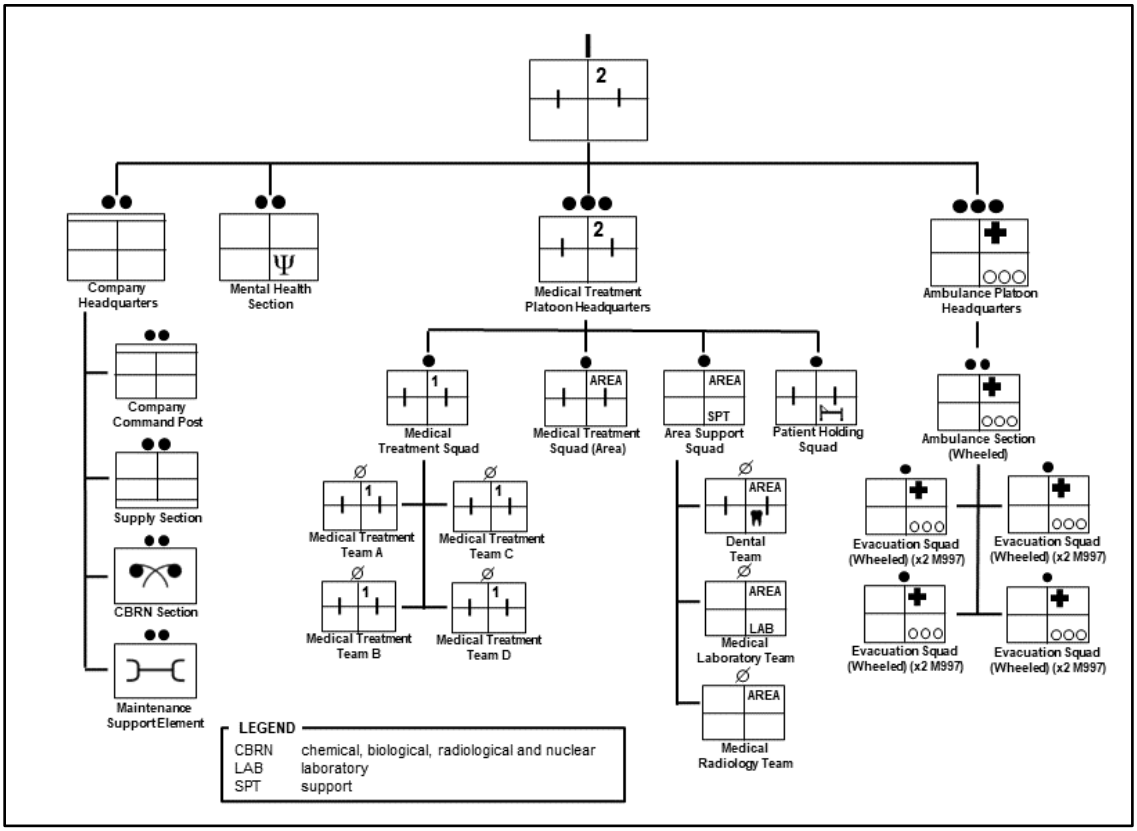

Figure 2-2. Organizational structure of the medical company (area support)

SECTION III – MEDICAL COMPANY, MULTI-DOMAIN TASK FORCE

2-20. The information in this section is based upon the MDMC TOE. The specific organization's modified TOE should be referenced for a complete understanding of the organization's operational and administrative information.

MISSION

2-21. The mission of the MDMC is to provide Role 2 AHS support to supported maneuver battalions with organic medical platoons. This company provides Role 1 and Role 2 medical care on an area basis to those units without organic medical assets operating in the BSA.

ASSIGNMENT

2-22. The MDMC is organic to the BSB of the multi-domain task force. The MDMC may be organic to the BSB; however, it is a task force asset.

DEPENDENCIES

2-23. The MDMC is dependent upon organizations for—

- Legal, finance, personnel and administrative service, laundry and clothing exchange, mortuary affairs (MA), and security of enemy prisoner of war patients and U.S. prisoner patients.
- Religious support and unit administration.
- All classes of supply (less Class VIII).
- Field maintenance of all organic equipment (less medical).
- Appropriate theater-level assets for field feeding support.

EMPLOYMENT AND BASIS OF ALLOCATION

2-24. The MDMC is located in the BSA. It provides Role 1 and Role 2 medical support and has treatment teams that can operate with elements of the multi-domain task force throughout the TF's AO. The MDMC is allocated to one per BSB multi-domain task force.

CAPABILITIES

2-25. The MDMC provides—

- Command and control of attached units, which includes medical planning and coordination of patient movement within and outside the brigade.
- Treatment of patients with DNBI and battle fatigue, triage of mass casualties, trauma management, initial resuscitation and stabilization, and preparation for further MEDEVAC of patients incapable of returning to duty.
- Ground MEDEVAC for patients from Role 1 MTFs and designated CCPs to the MDMC.
- Operational dental care that consists of emergency and essential dental care designed to circumvent potential dental emergencies.
- Class VIII supply and resupply to units in the task force area.
- Field-level medical device maintenance.
- Medical laboratory and radiology services commensurate with a Role 2 MTF.
- Outpatient consultation services for patients referred from Role 1 MTFs.
- Patient holding for up to 20 patients able to RTD within 72 hours.
- Regeneration of severely attritted Role 1 MTFs.
- Medical treatment squads capable of operating independently for limited periods of time that provide trauma management and sick call as required. A medical treatment squad can break down into two treatment teams, which can operate independently for limited periods of time.

- Individual weapons for personal defense and protection of the patients under their care.
- Deployment and arrival into an AO within 96 hours.

MOBILITY AND ORGANIZATIONAL STRUCTURE

2-26. The MDMC does not perform field maintenance on organic equipment (including communications security equipment) except for medical devices. The biomedical equipment specialist will perform limited maintenance on the unit's organic medical devices. The MDMC requires 100 percent mobility of its TOE equipment to be transported in a single lift using organic vehicles.

SECTION IV – ORGANIZATION AND FUNCTIONS OF THE MEDICAL COMPANY SUBORDINATE ELEMENTS

2-27. Each of the Role 2 medical companies contains between four and seven subordinate units. This section provides information on the organizational design and the functions performed by main subordinate elements of the Role 2 medical companies. The specific authorization documents should be referenced for a complete understanding of the structure and function of each organization.

COMPANY HEADQUARTERS SECTION

2-28. The company headquarters section is organized into company command, unit supply, and CBRN elements. The MCAS has an additional signal support, a maintenance support element as well as a MEDLOG sergeant. The headquarters section of a BSMC in the SBCT has the medical supply personnel found in the BSMC (ABCT and IBCT) BMSO.

2-29. The headquarters section provides general (unit) supply, medical supply or resupply, arms maintenance, CBRN defensive operations, and communications-electronics support to organic and attached elements. For communications, the company headquarters employs FM tactical radios and tactical computers. For information on the employment of tactical radios, refer to ATP 6-02.53. Personnel of this section supervise unit operations, general supply, medical supply, communications, and power-generation operations. See table 2-1 on page 2-8 for the company headquarters section personnel requirement.

Table 2-1. Company headquarters section personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
05A00	O4	Commander	*	1
70B67	O3	Executive Officer	MS	1
68W5M	E8	First Sergeant	NC	1
92Y2O	E5	Supply Noncommissioned Officer	NC	1
92Y1O	E4	Supply Specialist		1
74D1O	E3	Chemical Biological Radiologic Nuclear Decontamination Specialist		1
The following personnel are also in the MCAS headquarters section				
68J3O	E6	Medical Logistics Sergeant	NC	1
91B2O	E5	Wheeled Vehicle Mechanic	NC	1
25U1O	E4	Signal Maintenance Specialist		1
25U1O	E4	Forward Signal Support Specialist		1
68A1O	E4	Biomedical Equipment Specialist		1
91B1O	E4	Wheeled Vehicle Mechanic		1
91C1O	E4	Utilities Equipment Repair		1
91D1O	E4	Tactical Power Generator Specialist		1
91B1O	E3	Wheeled Vehicle Mechanic		2

LEGEND

AOC	area of concentration	MS	Medical Service Corps
MCAS	medical company (area support)	NC	noncommissioned
MOS	military occupational specialty	*	army medicine immaterial

2-30. The BSMC organic to the SBCT does not have a BMSO. However, those functions are located in the company headquarters of that organization and have the additional mission of—

- Providing supply point distribution of Class VIII push-packages for unit's CLS operating in the BCT's AO.
- Providing unit medical device maintenance.

COMMAND ELEMENT

2-31. The command element conducts medical company operations within its AO. The command element is responsible for the provision of billeting, security, training, administration, discipline of assigned personnel and provides C2 of its assigned and attached personnel. It is typically staffed with a company commander, an executive officer, and a first sergeant.

2-32. Currently, the medical company commander positions are documented 05A, Army Medicine immaterial, meaning any qualified Army Medicine officer can assume command. When the medical company commander is not a physician, medical decisions and technical supervision of any physician assigned to the medical company is performed by the field surgeon assigned to the medical treatment squad (area) since that position is always designated as a physician's position.

2-33. The medical company commander advises the battalion commander and the brigade commander on the Role 2 support operations. The medical company commander regularly attends headquarters staff meetings to obtain information to facilitate the execution of medical operations. The medical company commander provides staff estimates, assists the headquarters staff, brigade surgeon's section, and medical planner with the development of the brigade AHS support plan. As one of the senior Medical Service Corps officers in the organization, the medical company commander is normally better versed to provide input during the military decision-making process.

2-34. The executive officer is the company's second in command and its primary internal sustainment planner and coordinator. The executive officer and the company headquarters personnel operate the company

command post (CP) and net control station for both radio and digital traffic. The executive officer ensures all reports are submitted (for example, logistics status, sensitive items, or medical situation report) according to the unit battle rhythm. The executive officer also ensures all analog and digital tracking tools in the CP are updated according to the unit standard operating procedure (SOP).

2-35. The first sergeant is the company's senior NCO and normally is its most experienced Soldier. The first sergeant is the commander's primary medical and tactical advisor, and the first sergeant is an expert in individual and NCO skills. The first sergeant is the company's primary internal sustainment support operator and helps the commander plan, coordinate, and supervise all logistical activities that support the company's mission. The first sergeant operates where the commander directs or wherever the first sergeant's duties require.

UNIT SUPPLY ELEMENT

2-36. The unit supply element, under the supervision of the unit supply sergeant, is responsible for managing, requesting, receiving, issuing, storing, and maintaining all classes of supplies and conducts turn-in of supplies and equipment for the company. It also employs the Global Combat Support System-Army for automated supply activities. The unit supply sergeant coordinates all general supply, equipment requirements, and actions with the first sergeant and the logistics staff officer (S-4) of the parent battalion.

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR ELEMENT

2-37. The CBRN element (operations element in the MCAS) is normally composed of the signal maintenance specialist, forward signal support specialist, and the CBRN specialist. These personnel perform those functions for the company in their areas of expertise. This element operates the company CP and serves as the company net control station for the company's operations nets for the Joint Battle Command-Platform and FM radios.

The following topic is in consonance with ABCANZ standard 2042.

PREVENTIVE MEDICINE SECTION

2-38. The PVNTMED sections are organic to the BSMCs. The MCAS does not have PVNTMED personnel assigned to the company and is dependent on the medical detachment, PVNTMED for operational public health support. The PVNTMED section ensures personnel implement personal protective measures to protect against food, water, and vector-borne diseases and environmental injuries. See table 2-2 for PVNTMED section personnel requirements. The PVNTMED section assigned to the medical companies has a primary responsibility for supervising the unit's operational public health program as described in AR 40-5 and DA PAM 40-11.

Table 2-2. Preventive medicine section personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
72D67	O2	Environmental Science Officer	MS	1
68S2O	E5	Preventive Medicine Noncommissioned Officer	NC	1

LEGEND
AOC area of concentration
MOS military occupational specialty
MS Medical Service Corps
NC noncommissioned

2-39. The section provides advice and consultation in health threat assessment, FHP, environmental sanitation, epidemiology, sanitary engineering, and pest management. Through routine surveillance, the section identifies actual and potential health hazards, recommends corrective measures, and assists in training BCT personnel in disease prevention programs.

2-40. The PVNTMED section functions include—

- Assisting the commander in preparing staff estimates by identifying the health threat and risk assessments.
- Assisting the higher headquarters in determining requirements for medical intelligence assessments, particularly with respect to toxic industrial chemical and disease prevalence.
- Assisting units in the training of personnel protective measures against heat and cold injuries, as well as food, water, and arthropod borne diseases.
- Coordinating with supporting veterinary teams for conducting and implementing food safety and quality assurance surveillance and assisting in foodborne and zoonotic disease surveillance and control.
- Monitoring the brigade immunization program.
- Monitoring and approving the health-related aspects of water and ice sources to include production, distribution, and consumption.
- Conducting health surveillance of organic and attached units to include monitoring disease and injury incidence to optimize early recognition of disease trends and to initiate preemptive disease suppression measures.
- Conducting epidemiological investigations of disease outbreaks and recommending personnel protective measures to minimize effects.
- Collecting and shipping specimens to the supporting medical laboratory to rule out or confirm presence of a health threat.
- Coordinating for CBRN reconnaissance capabilities to assist with environmental monitoring of industrial chemical, biological, and radiological hazards.
- Conducting limited entomological investigation and control measures.
- Monitoring environmental and meteorological conditions, assessing their health-related impact on operations, and recommending personnel protective measures to minimize heat or cold injuries, as well as selected arthropod borne diseases.
- Training unit field sanitation teams for assigned or attached units according to ATP 4-25.12.
- Assessing the effectiveness of field sanitation teams.
- Conducting routine monitoring and surveillance of all assigned and attached brigade units to ensure field sanitation procedures are implemented and to identify any existing or potential health threats.
- Monitoring disposal practices and facilities for all classes of waste in the AO.
- Maintaining technical and tactical proficiency by participating in continuing medical education activities and warrior task list related training.

2-41. Additional information pertaining to PVNTMED staff and specific operational public health functions are discussed in ATP 4-02.8.

MENTAL HEALTH SECTION

2-42. The mental health section of the medical company provides training and advice in the identification and management of stressors and the promotion of healthy stress responses to promote positive combat and operational responses to stress. The section supports the command in prevention, identification, and management of misconduct stress behaviors. It coordinates COSC training for supported units through the medical company commander and the MEDBDE (SPT) psychiatrist. The section collects and records social and psychological data and counsels personnel with personal, behavioral, or psychological problems. See table 2-3 on page 2-11 for the mental health section personnel requirements.

Table 2-3. Mental health section personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
67D00	O3	Behavioral Science Officer	MS	2
68X2O	E5	Behavioral Health Noncommissioned Officer	NC	1
68X1O	E4	Behavioral Health Specialist		1

LEGEND
AOC area of concentration
MOS military occupational specialty
MS Medical Service Corps
NC noncommissioned

Note. The mental health section assigned to the MCAS is staffed with one MOS 67D, Behavioral Science Officer, and MOS 68X1O, Behavioral Health Specialist.

2-43. These programs are designed to maximize the RTD rate of Soldiers by identifying COSRs and providing rest and restoration within or near their unit areas. Also, the prevention of trauma and stress disorders is an important objective in both division and corps COSC programs. For detailed information on COSC operations, refer to ATP 4-02.8.

2-44. *Combat and operational stress reaction* is the physical, emotional, cognitive, or behavioral reactions, adverse consequences, or psychological injuries of Service members who have been exposed to stressful or traumatic events in combat or military operations (DODI 6490.05). Combat and operational stress reactions vary in severity as a function of operational conditions, such as intensity, duration, frequency of combat exposure, rules of engagement, leadership, effective communication, unit morale, unit cohesion, and perceived importance of the mission. Combat and operational stress reactions do not represent behavioral health disorders or medically diagnosable conditions and concerns. Post-traumatic stress disorder is not equivalent to or another name for COSR. For more information on COSR, refer to DODI 6490.05.

2-45. The mental health section has a primary responsibility for assisting commanders in mitigation of COSR by implementing COSC measures. The mental health section serves as a consultant to the commander, staff, and others involved with providing prevention and intervention services to unit Soldiers and their families.

2-46. The mental health section has the staff responsibilities for establishing brigade policy and guidance for the prevention, diagnosis, treatment, management, and RTD of COSR and other stress related casualties. This is accomplished under the guidance and in close coordination with the brigade surgeon, battalion surgeons, and BSMC physicians.

2-47. The section collects and records social and psychological data and counsels personnel with personal, behavioral, or psychological problems. The concept of behavioral health support is to provide care at the Soldier's location to the greatest extent possible as this expedites treatment and minimizes both lost time and evacuation of Soldiers out of the brigade AO. For an in-depth discussion of COSC operations, refer to ATP 4-02.5.

2-48. Functions of the mental health section include—

- Conducting surveys and evaluating data to assess unit cohesion and other factors related to prediction and prevention of both COSR casualties and misconduct stress behaviors.
- Identifying and resolving organizational behavioral and social environmental factors, to include social determinants of health as related to risk and protective factors that interfere with influence combat readiness. Social determinants of health are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
- Monitoring indicators of dysfunctional stress in units.
- Providing consultation and triage as requested for Soldiers exhibiting signs of combat stress or neuropsychiatric disorders.
- Coordinating mental health and stabilization support for Soldiers and for their families from Army and civilian community support agencies.

- Providing counseling to Soldiers experiencing emotional or social problems.
- Assisting in the evaluation of command referred emotionally and mentally impaired Soldiers according to DODI 6490.04.
- Assess need for Traumatic Event Management following critical incidents such as suicide, combat exposure, or accidents.
- Coordinating, recommending, and assisting commanders and staffs with their involvement in unit and small group leader-led after action briefings.
- Providing commanders, leaders, and individuals with stress management training for recognizing and coping with excessive stress to include leader's actions for resolving stress related problems and individual actions for coping with excessive stress.
- Providing COSC consultation services for unit commanders and feedback on the status of morale, unit cohesion, and adverse trends in their units.
- Providing recommendations for prevention or actions required to ensure positive mission-oriented motivation of unit members and unit cohesion.
- Conducting and overseeing a three-day unit restoration program for Soldiers experiencing COSR or other stress related disorders as required according to ATP 4-02.8.
- Developing a tactical standard operating procedure (tactical SOP) and tactics, techniques, and procedures to facilitate the timely acquisition, treatment, disposition, or RTD of Soldiers with COSR or other stress related disorders.
- Ensuring patient encounters are recorded in the Soldier's individual health record (HREC) or civilian employee medical records (CEMRs) in the field. For further information on medical records administration and health care documentation, refer to AR 40-66.
- Providing predeployment, postdeployment, and reunion briefings for BCT personnel and family support groups.
- Supports the predeployment, postdeployment, and periodic health assessments for BCT personnel.
- Providing COSC training and consultation to BCT medical personnel.
- Providing behavioral health support in garrison for unit Soldiers and families by working with unit commanders, chaplains, and other medical personnel or, if the mission permits, to augment home station community behavioral health activity.
- Providing consultation, training, and support to the brigade's alcohol and drug prevention and control program.
- Maintaining technical and tactical proficiency by participating in CME activities and warrior task list test related training.

MEDICAL TREATMENT PLATOON

2-49. The medical treatment platoon operates the Role 2 MTF. It receives, triages, treats, and determines the disposition of patients based upon their medical condition. This platoon provides professional services in the areas of minor surgery, internal medicine, general medicine, and general dentistry. In addition, it provides basic diagnostic laboratory and radiological services and patient holding support.

MEDICAL TREATMENT PLATOON HEADQUARTERS

2-50. The platoon headquarters is the C2 element of the platoon. It determines and directs the disposition of patients and submits requests through the company CP for the evacuation of patients to supporting hospitals. During hasty displacements, the treatment platoon headquarters is used as an alternate company CP. The headquarters element directs, coordinates, and supervises platoon operations. It directs the activities of the Role 2, monitors Class VIII supplies, blood usage, and inventory levels, and keeps the commander informed on the status of the platoon. The headquarters element is responsible for the management of platoon operations, operations security, communications, medical administration, organizational training, supply transportation, patient accountability, statistical reporting functions, and blood situation reporting. The platoon headquarters element verifies and updates patient status for how many patients are in the trauma bay, patient hold or the area support squad sections. For the personnel requirements for the platoon headquarters element, see table 2-4 on page 2-13.

Table 2-4. Treatment platoon headquarters element personnel requirements

AOC/MOS	Grade	Title	Branch	Quantity
62B00	O4	Platoon Leader	MC	0*
70B67	O2	Field Medical Assistant	MS	1
68W4O	E7	Platoon Sergeant	NC	1
68G1O	E4	Patient Administration Specialist		1

LEGEND
AOC area of concentration
MC medical corps
MOS military occupational specialty
MS Medical Service Corps
NC noncommissioned
* requirement counted elsewhere

MEDICAL TREATMENT SQUAD

2-51. The treatment platoon can contain up to four medical treatment squad elements, depending on the type of company assigned. For the medical treatment squad elements personnel requirements refer to table 2-5. These squads provide emergency and routine sick call treatment to Soldiers assigned to supported units. The squads can perform their functions while located in the company area, or they can operate independently of the medical company for up to 48 hours. Each squad has the capability to split and operate as separate treatment teams (Teams A and B) for up to 48 hours. While operating in these separate modes, each team may operate one treatment station. They can be assigned to reinforce or reconstitute similar medical treatment squads. They are also used to augment the Role 2 MTF during MASCAL situations (see appendix B). For medical companies deployed in the support area, these squads can further be used to—

- Provide augmentation to maneuver battalion medical platoons. They can routinely be OPCON to a maneuver battalion.
- Reinforce and reconstitute maneuver unit medical platoons in task force operations, during periods of high patient densities, in areas with a temporary troop concentration (such as marshalling areas), or during MASCAL situations.
- Facilitate the movement of the Role 2 from one location to another. A medical treatment squad can be echeloned forward to establish an MTF at a new location allowing the old treatment site to remain operational until the new site is established.
- Regenerate severely attritted BASs.
- Augment an ambulance exchange point (AXP) or another designated point in the ambulance shuttle system with a treatment capability when required.

Note. The equipment for this squad should stay configured and loaded on unit vehicles to be prepared to execute these types of missions on short notice.

Table 2-5. Medical treatment squad personnel requirements

AOC/MOS	Grade	Title	Branch	Quantity
62A00	O3	Emergency Physician	MC	1
65D00	O3	Physician Assistant	SP	1
68W3O	E6	Health Care Sergeant	NC	1
68W2O	E5	Health Care Sergeant	NC	2
68W1O	E4	Health Care Specialist		1
68W1O	E3	Health Care Specialist		2

LEGEND
AOC area of concentration
MC medical corps
MOS military occupational specialty
NC noncommissioned
SP medical specialty corps

2-52. In the BSMC assigned to the SBCT, the medical treatment squad is called the medical treatment section. It contains an additional treatment team consisting of one 65D00, one 68W3O, and two 68W1O. The ABCT medical treatment squad has two M577A3 tracked vehicles forming the base of the Role 1 MTF. The IBCT and SBCT medical treatment squad vehicles are wheeled. In the MCAS, the medical treatment squad has two additional treatment teams. The squad contains two 62B00, two 65D00, two 68W3O, four 68W2O, six 68W1O.

ROLE 2 ELEMENTS

2-53. The Role 2 elements of the treatment platoon are composed of a medical treatment squad (area), an area support squad, and a patient holding squad. The area treatment squad along with the area support squad and the patient holding squad form the core of the Role 2.

Note. The Role 2 elements of the treatment platoon should not be used to reinforce or reconstitute supported units' medical elements. Also, they are normally not used on the area damage control team.

Medical Treatment Squad (Area) or Area Support Medical Treatment Squad

2-54. The medical treatment squad (area), in the BSMC, or area support medical treatment squad, in the MCAS, is the base medical treatment element that provides troop clinic-type services and TCCC within the support area. This squad is staffed with the same personnel identified in table 2-5 on page 2-13.

2-55. The medical treatment squad (area) of the BSMC and MDMC perform the identical mission of the area support medical treatment squad of the MCAS. The squad nomenclature may be used synonymously.

2-56. The primary care physician of this squad is designated as the treatment platoon leader on the TOE but is rarely required to execute the duties of the treatment platoon leader. In deployed settings, they are busy providing treatment, not executing platoon leader work; those duties become the responsibility of the 70B, Field Medical Assistant.

Area Support Squad

2-57. The area support squad provides emergency dental services, laboratory services, blood support, radiological services, and physical therapy. This squad is located with and supports the medical treatment squad (area) and provides services for the treatment squads deployed forward. When operating with or collocated with a FRSD, the area support squad provides augmentation of FRSD laboratory and blood storage capabilities and provides radiological services to the FRSD. See table 2-6 for the area support squad personnel requirements.

Table 2-6. Area support squad personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
63A00	O3	General Dental Officer	DC	1
65B00	O3	Physical Therapist	SP	1
68F2O	E5	Physical Therapy Sergeant	NC	1
68K2O	E5	Medical Laboratory Sergeant	NC	1
68P2O	E5	Radiology Sergeant	NC	1
68E1O	E4	Dental Specialist	1	1
68K1O	E4	Medical Laboratory Specialist	1	1
68P1O	E4	Radiology Specialist	1	1

LEGEND
AOC area of concentration
DC dental corps
MOS military occupational specialty
NC noncommissioned
SP specialty corps

2-58. The capability of providing physical therapy is not currently mentioned in the paragraph description in the organization TOE; however, the physical therapist and physical therapy technician are assigned to this squad. Unlike the BSMC area support squad, the MCAS does not have an organic physical therapy capability.

2-59. The dental team provides operational dental care consisting of emergency and essential dental care. Emergency dental care is the care given for the relief of pain, elimination of acute infection, and control of life-threatening oral conditions (hemorrhage, cellulitis, or respiratory difficulty); treatment of trauma to teeth, jaws, and associated facial structures is considered emergency care. It is the most austere type of dental care and is available to Soldiers engaged operationally. Common examples of emergency dental care are simple extractions, administration of antibiotics, administration of pain medication, and temporary fillings. Essential care includes dental treatment necessary for the prevention of lost duty time and preservation of the fighting strength. Soldiers in Class 3 (potential dental emergencies) should be provided essential care as the tactical situation permits. For more information on dental services, refer to ATP 4-02.19.

2-60. The medical laboratory team performs clinical laboratory and blood banking to aid physicians and PAs in the diagnosis, treatment, and prevention of diseases. Laboratory functions include performing laboratory procedures consistent with Role 2 treatment capabilities. This team is responsible for storing and issuing blood products. Blood banking procedures are accomplished according to TM 8-227-11.

2-61. The radiology team provides clinical radiological procedures to aid physicians and PAs in the diagnosis and treatment of patients. The radiology element operates x-ray equipment consistent with Role 2 treatment capabilities. Examples of functions performed by this element include interpreting physicians' orders, applying radiation and electrical protective measures, operating and maintaining x-ray equipment, and taking x-rays of extremities, chest, trunk, and skull.

2-62. The physical therapy personnel assist in strengthening the Soldiers' physical resiliency, assist in the prevention of neuromusculoskeletal injuries, and provide for the prompt treatment of Soldiers with neuromusculoskeletal injuries returning them to duty as soon as possible. Soldiers are treated as close to their unit of assignment as feasible. For additional information on roles and responsibilities of physical therapy personnel, refer to TC 8-280.

Patient Holding Squad

2-63. The patient holding squad operates the patient holding facility of the Role 2 MTF. See table 2-7 for the patient holding squad personnel requirements. The primary function of this holding facility is to provide nursing care for patients awaiting evacuation and for those patients being held for DNBI who are expected to RTD within 72 hours. The brigade commander, on the advice of the command surgeon, may extend this holding period according to the theater evacuation policy.

Table 2-7. Patient holding squad personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
66H00	O3	Medical-Surgical Nurse	AN	1
68W2O	E5	Health Care Sergeant	NC	2
68W1O	E4	Health Care Specialist		1
68W1O	E3	Health Care Specialist		1

LEGEND
AN nurse corps
AOC area of concentration
MOS military occupational specialty
NC Noncommissioned

2-64. The patient holding squad provides care for up to 20 patients. The patient holding squad works under the direct supervision of a physician. The medical-surgical nurse assigned to the patient holding squad provides nursing care supervision.

Note. The patient holding squad assigned to the MCAS has the ability to hold 40 patients with one additional MES patient holding squad field lightweight; however, they do not have more personnel than the BCT medical companies.

2-65. Role 2 facilities do not have an admission capability, and patients are held at this facility. These patients are not counted as hospital admissions. If recovery or RTD is not expected within 72 hours, the patients are evacuated to a supporting hospital for admission.

2-66. The patient holding squad does not have a patient feeding capability. Therefore, DNBI patients must be capable of obtaining their meals at the supporting field feeding facility.

2-67. When operating with or collocated with a FRSD, the patient holding squad may serve as an overflow recovery area for postoperative patients and those patients pending evacuation from the FRSD.

2-68. Patients awaiting evacuation or those requiring treatment of minor illnesses or injuries are placed in the patient holding area. Neuropsychiatric and COSR patients, who are expected to be RTD within 72 hours, are also placed in the patient holding area.

The following topic is in consonance with ABCANZ standard 2143.

MEDICAL EVACUATION PLATOON

2-69. The evacuation platoon, ambulance platoon (table 2-8) performs ground evacuation and en route patient care for supported units. The platoon employs 10 evacuation teams, utilizing assigned MEDEVAC platforms depending on the formation type.

Table 2-8. Medical evacuation platoon personnel requirements

TOE paragraph title	*AOC/MOS*	*Grade*	*Title*	*Branch*	*Quantity*
Evacuation Platoon Headquarters	70B67	O2	Platoon Leader	MS	1
	68W4O	E7	Platoon Sergeant	NC	1
Evacuation Squad (Forward)	68W2O	E5	Emergency Care Sergeant	NC	6
	68W1O	E4	Ambulance Aide/Driver		6
	68W1O	E3	Ambulance Aide/Driver		6
Evacuation Squad (Area)	68W2O	E5	Emergency Care Sergeant	NC	2
	68W1O	E4	Ambulance Aide/Driver		6
	68W1O	E3	Ambulance Aide/Driver		4

LEGEND

AOC	area of concentration	MOS	military occupational specialty
MS	Medical Service Corps	NC	noncommissioned
		TOE	table of organization and equipment

2-70. The evacuation platoon provides ground MEDEVAC support for the maneuver battalions of the BCTs. In addition, it provides ground MEDEVAC support to units receiving area support from the medical companies.

Note. The evacuation platoon in the MCAS employs eight evacuation teams, with a two-person crew, utilizing truck ambulance: four litter armored 4x4.

2-71. The TOE paragraph title of "Evacuation Squad (Forward)" and "Evacuation Squad (Area)" are extracted from Force Management System Website (FMSWEB). The appropriate titles when discussing these paragraphs are "Evacuation Section (Forward)" and "Evacuation Section (Area)" with each section being composed of ambulance squads.

2-72. Medical evacuation, both ground and air, to Role 3 MTFs is provided by the higher role of care. Coordination of MEDEVAC to higher roles of care is the responsibility of the appropriate C2 elements. In early entry operations, organic evacuation resources are relied on until either EAB ambulances arrive or rearward evacuation via aircraft (fixed-wing or rotary-wing) is available.

EVACUATION PLATOON HEADQUARTERS

2-73. The evacuation platoon headquarters maintains communications to direct ground ambulance evacuation of patients. It provides ground ambulance evacuation support for supported maneuver battalions and for supported units operating in the rear areas.

2-74. The evacuation platoon headquarters performs route reconnaissance (by map; aerial reconnaissance; coordination with the intelligence staff officer [S-2] and operations staff officer [S-3]; and vehicular route reconnaissance). The evacuation platoon develops and issues all necessary route and navigational information. If possible, the information is provided via the Joint Battle Command-Platform to all ambulance teams.

2-75. The evacuation platoon headquarters coordinates and establishes an ambulance shuttle system for both air and ground ambulances as required. The evacuation platoon is employed in the company command net and establishes a net control station for its evacuation teams. The platoon leader directs the platoon and plans for its employment.

2-76. The evacuation platoon leader and platoon sergeant—

- Maintain situational understanding of operational requirements for MEDEVAC.
- Establish primary and alternate evacuation routes.
- Verify locations of supported units.
- Assist evacuation teams as necessary.
- Coordinate support requirements with supported units for evacuation squad or teams placed in DS.
- Synchronize MEDEVAC requirements for support of organizations without organic medical support on an area support basis.
- Ensure maps and all relevant available information are provided to platoon personnel.
- Ensure evacuation personnel are trained, equipment is maintained, and evacuation personnel use information as required to respond to evacuation requests expeditiously and appropriately.
- Conduct rehearsals of evacuation routes with evacuation platoon personnel if time and fuel permit.

EVACUATION SQUADS

2-77. The evacuation platoon of a BCT medical company comprises a platoon headquarters, a forward deployed section with three evacuation squads (six ambulances), an area support section with two evacuation squads (four ambulances), and one high-mobility multipurpose wheeled vehicle control vehicle.

2-78. The evacuation platoon in the MCAS comprises a platoon headquarters, a high-mobility multipurpose wheeled vehicle control vehicle, and two evacuation sections with each having two evacuation squads (eight ambulances total). Tracked ambulances are found in the armored and mechanized infantry divisions. The airborne, air assault, and light infantry have only wheeled ambulances organic to their medical companies.

2-79. Evacuation squads provide ground ambulance evacuation of patients from supported Role 1 MTFs back to the Role 2 MTF located in the support area. An evacuation squad consists of two ambulance teams (two ambulances being either wheeled or tracked vehicles). Each ambulance team is composed of an emergency care sergeant (E5, 68W20) and two ambulance aide/drivers (E4/E3, 68W1O). Evacuation squad personnel perform TCCC, evacuate patients, and provide continued en route care.

Note. Ambulance teams assigned to the MCAS are staffed with two medical personnel. The teams are dependent on external support for the third crew member.

2-80. Evacuation squad personnel operate and maintain assigned communication and navigational equipment. They perform preventive maintenance checks and services on ambulances and associated equipment.

2-81. Evacuation squad personnel provide the TCCC necessary to prepare patients for movement and provide en route care. Evacuation squad personnel maintain supply levels for the ambulance MESs.

Evacuation squad personnel exchange medical items (such as litters and blankets) at sending and receiving MTFs and ensure property accountability is maintained.

BRIGADE MEDICAL SUPPLY OFFICE

2-82. The BMSO consists of the medical supply element and the medical maintenance element. The medical supply element in the BMSO provides brigade-level Role 2, Class VIII coordination, synchronization, and execution of MEDLOG support for the BCT medical companies and supported BCT. For BMSO operations, refer to TC 8-270. For more information on the management of Class VIII supplies and MEDLOG support, refer to ATP 4-02.1.

2-83. Operational Class VIII organizational assets in the BCT are fixed and deploy with assigned AHS support units. Operational MEDLOG support relies on the application of a Class VIII supply chain that is agile, responsive, and swift and that possesses situational understanding of the supported organizations, the OE, mission, and the AO. During the initial deployment, the BSMC receives medical resupply mainly through preconfigured push-packages, medical resupply sets from the supporting MEDLOG company, or a higher logistics support activity. The personnel requirements of the BMSO is displayed in table 2-9.

Table 2-9. Brigade medical supply office personnel requirements

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
70K67	O2	Health Services Material Officer	MS	1
68J3O	E6	Medical Logistics Sergeant	NC	1
68A2O	E5	Biomedical Equipment Sergeant	NC	1
68J2O	E5	Medical Logistics Sergeant	NC	1
68Q2O	E5	Pharmacy Sergeant	NC	1
68J1O	E4	Medical Logistics Specialist		1
LEGEND AOC area of concentration MS Medical Service Corps			MOS military occupational specialty NC noncommissioned	

Note 1. The SBCT MEDLOG personnel are assigned to the company headquarters; the SBCT was not organized with a separate BMSO structure.

Note 2. The BMSO of the MDMC has one additional 68A1O.

2-84. The medical supply team is under the supervision of the MEDLOG sergeant, establishes the Class VIII distribution point and manages Class VIII. The MEDLOG sergeant also supervises the activities of the MEDLOG specialist and the biomedical equipment sergeant. The MEDLOG sergeant coordinates Class VIII requirements through the company executive officer with the BSB support operations section, the MLC, and the brigade surgeon's section.

2-85. This medical supply element issues Class VIII supplies to all treatment elements of the company, monitors the expiration of perishable medication, and requisitions accordingly. All blood products for the company are distributed to the treatment platoon (area support squad medical laboratory element) for storage, managing, monitoring, and further distribution in the company or to a supporting FRSD. The treatment platoon medical laboratory element is responsible for the preparation of the daily blood report (refer to appendix C).

Note. Blood products are currently not issued to Role 1 MTFs.

2-86. The MEDLOG personnel in the BMSO perform the following tasks:

- Advising the support operations section MEDLOG officer and BSMC commander on issues related to medical supply and equipment support operations in the AO.
- Managing the execution of support plans for medical device maintenance and Class VIII support for the brigade.
- Managing customer support requirements for organic and supported units within the brigade AO.
- Providing oversight on the internal aspects of BMSO operations to ensure proper management of pharmaceuticals, medical and surgical items, compressed medical gasses, scheduled and unscheduled medical maintenance support, maintenance repair parts, and controlled substances.
- Analyzing Class VIII replenishment operations, identifying trends in performance, and providing technical advice as necessary.
- Conducting distribution planning in coordination with the support operations section.
- Developing MEDLOG related policies and procedures including the management of the MEDLOG SOP for the BCT.
- Managing Class VIII special handling procedures including disposition and destruction of expired medical supplies.
- Managing warehousing including receipt, storage, distribution, and turn-in of supplies.
- Providing support for customer service including direct interface with customers to establish accounts and maintain updated signature cards.
- Providing internal quality control operations, medical material quality control message distribution and overseeing narcotics receipt, storage, and distribution.
- Executing Class VIII special handling procedures, disposition documentation, and destruction of expired medical supplies.
- Executing cold chain management of pharmaceuticals and accountability of controlled substances.

2-87. Unlike the BCT medical companies, the MCAS does not have an organic medical supply office but does have one biomedical equipment specialist assigned to the company headquarters section with limited medical maintenance capabilities. The MCAS is assigned to the MMB or MEDBDE (SPT) and is collocated with the PVNTMED detachment, MLC, blood support detachment, and many others that provide the necessary support.

2-88. The medical maintenance element consists of one biomedical equipment specialist who provides field-level medical device maintenance and repair for the company and supported units. The medical maintenance element is responsible for managing the BCTs medical device services and must ensure all items are inputted into Global Combat Support System-Army. If unable to service the devices, the medical maintenance element must coordinate for vendors or EAB assets to complete services.

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Chapter 3

Employment and Operation of the Medical Company (Role 2)

A Role 2 MTF builds on those capabilities initiated at the Role 1 MTF within the AO. This chapter will discuss the basic employment and operation of the Role 2 and provide the tactics, techniques, and procedures for site establishment.

SECTION I – EMPLOYMENT OF THE MEDICAL COMPANY

3-1. During operations, each medical company is assigned a specific AO to ensure all personnel receive adequate medical care. Within each company AO, the treatment platoon with its medical treatment squad (area), area support squad, and patient holding squad forms the core of the company's Role 2 support scheme. The medical treatment squads are employed geographically to best support the troop population. Company ambulances are collocated with medical elements to provide a ground MEDEVAC capability or to evacuate patients to the Role 2 established by the medical company for further treatment or holding.

3-2. The medical company locates within its parent headquarters AO, normally in the support area that is part of a base cluster. The medical company participates in the initial reconnaissance of a new operational area. It assists with site selection for establishment of the units. The company treatment teams may deploy, as required, to the geographical locations of supported units. The company headquarters' element coordinates for convoy clearances and security for the movement of treatment teams through its parent support battalion support operations section. Refer to appendix A for AHS support planning and estimates.

STANDARD OPERATING PROCEDURE

3-3. Medical companies should create SOPs to solidify the unit's procedures. The SOPs may be identified as a tactical SOP or a clinical SOP. The tactical SOP prescribes policy, guidance, and procedures for the routine tactical operations of a specific unit. The clinical SOP should be organized according to the organizations modified TOE focusing solely on clinical procedures of each paragraph. Both types of SOPs should cover broad areas of unit operations but be sufficiently detailed to provide newly assigned personnel the guidance required for them to assume their new positions.

3-4. A tactical SOP may be modified by other tactical SOPs, operation plans (OPLANs), or operation orders (OPORDs of higher headquarters. It applies to a specific unit and all subordinate units assigned and attached. Should a tactical SOP not conform to the tactical SOP of the higher headquarters, the higher headquarters' tactical SOP governs. The tactical SOP should be periodically reviewed and updated as required. For a complete discussion on the development of a tactical SOP, refer to ATP 3-90.90.

3-5. There is not a standard format for SOPs; however, it is recommended that the unit's SOPs follow the format used by its higher headquarters. The tactical SOP can be divided into sections (specific functional areas or major operational areas). The tactical SOP can contain one or more annexes, each of which may have one or more appendixes. The appendixes may each have one or more tabs. Appendixes can be used to provide detailed information on major subdivisions of the annex, and tabs can be used to provide additional information (such as report formats or area layouts) addressed in the appendix. The MEDCoE lessons learned website contains examples of SOPs for medical units. The MEDCoE lessons learned branch can be contacted by email at usarmy.jbsa.medcom-ameddcs.list.amedd-lessons-learned@army.mil for additional SOPs or tactics, techniques, and procedures.

3-6. Regardless of the format used, the tactical SOP should follow a logical sequence in the presentation of material. As a minimum, the tactical SOP should discuss the—

- Chain of command.
- Priorities for work, major functions, and staff sections of the unit.
- Operational requirements.
- Required reports.
- Necessary coordination with higher and subordinate elements for mission accomplishment.
- Programs (such as command information, personnel protective measures, and COSC).
- Other relevant topics.

3-7. Priorities of work for the establishment or relocation of Role 2 considerations should include the method of work accomplishment by timeline, phase, or simultaneously by platoon or work detail teams. Subsequent tasks should then be identified when the first task is complete. This should be rehearsed, and vehicle load plans should facilitate the priorities of work. Table 3-1 provides an example of priorities of work utilizing a phased team concept. The priorities of work should not be limited to the order or to the tasks shown in the table.

Table 3-1. Priorities for work

Phase 1a. This phase ends with 1 trauma bed operational, x-ray operational, and communication with higher headquarters secured.

- Establish communications with higher headquarters via command platform; download and set up command post communications equipment.
- Establish command post.
- Establish treatment squad (area) location with Bed 1 operational.
- Establish x-ray and conduct one exposure.
- Establish power distribution for treatment area and command post simultaneously with focus on communications and x-ray equipment.
- Camouflage net all tents as they are erected.
- Establish Role 2 hasty helicopter landing zone and triage site.
- Establish tailgate medicine with one litter, litter stands, and trauma panel adjacent to front line ambulance with weapons guard.

Phase 1b. This phase ends when all tents are set up and operational.

- Establish area support squad (ancillary) tent.
- Establish remainder of treatment squad (area) location.
- Shift focus to environmental control units, interior lighting.
- Shift focus to treatment platoon communications and vehicles.
- Continue to establish command post.
- Continue to camouflage net all tents as they are erected.
- Complete triage location and establish Role 2 hasty helicopter landing zone.
- Continue tailgate medicine and weapons guards.

Phase 1c. This phase ends when fully established as functional Role 2 medical treatment facility.

- Complete set up of treatment squad (area) location.
- Complete set up and operation of area support squad area.
- Download and establish patient hold.
- Move to assist Team 2.
- Move to assist Team 3.
- Continue to camouflage net all tents as they are erected.
- Complete deliberate helicopter landing zone, establish support area casualty collection points.
- Continue tailgate medicine and weapons guard.

SINGLE BASE OPERATIONS

3-8. If a single base is used, the unit designated to control the BSA will control the base. That unit commander will determine unit placement within the base. Units occupying the support area will change according to the unit mission and task organization. The commander may place attached elements in the support role during certain phases of an operation or for its duration. A single base is advantageous in terms of simplified C2 and perimeter security. However, a single base containing the number of support units will be very large and easily detected by enemy reconnaissance. A single base simplifies targeting and attack by enemy artillery, attack aircraft, and ground forces. It puts a significant portion of the sustainment and support structure at risk from a single attack. Locations of elements in the base will vary depending on mission variables. The designated commander and the S-3 use their best judgment in positioning units and assigning sectors for security of the base. Troop safety guidelines also influence unit placement. Figure 3-1 on page 3-3 depicts an example of a notional support area layout with a single base with company sectors to support a BCT. For more information on single base operations, refer to ATP 4-90.

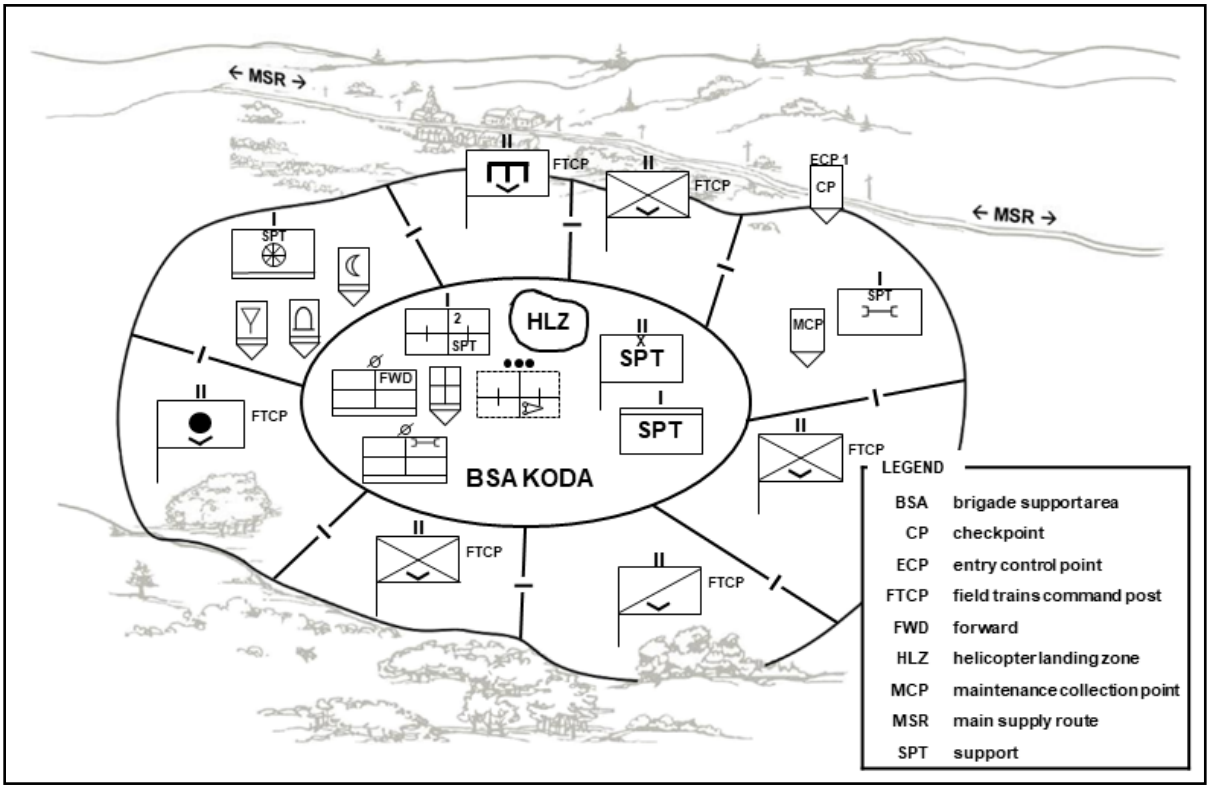

Figure 3-1. Example of a notional brigade support area layout

3-9. The medical company establishes the Role 2 within the perimeter of the single base. Some considerations to locating the Role 2 within the base are—

- Making supply points accessible to both customers and resupply vehicles and helicopters.
- Keeping Class III points away from supplies and at least 100 feet from water sources to prevent contamination.
- Locating the medical treatment areas away from likely target areas (such as the MATP, Class III point, and road junctions).
- Ensuring evacuation routes and an open area for landing air ambulances are readily accessible by medical personnel.
- Positioning units with greatest firepower (such as the maintenance company) along the most threatening avenues of approach.

BASE CLUSTER OPERATIONS

3-10. While the Assistant Chief of Staff, G-3 (Operations and Plans) and the S-3 are responsible, overall, for terrain management, commanders of rear CPs usually position supporting units in rear areas. Once in position, these units become a base (a unit or multiunit position with a definite perimeter) or part of a base cluster (a mission grouping of bases security requirements that lack a clearly defined perimeter). Division and corps medical units are located within these base clusters.

3-11. If a base cluster is used, the commander designated with the control of the support executes terrain management to locate a base for each element in the support area and designates a unit responsible for controlling each base. The commander controlling the support area does so from the main CP of the unit. Security, communications capability, proximity to road network, and other factors influence base placement. For additional information on base cluster operations, refer to ATP 4-90.

3-12. A base cluster dispersion complicates enemy detection and targeting. A base cluster spreads sustainment and support assets over a larger geographic area that minimizes the effects of artillery, air, or ground attack.

3-13. A base cluster often lacks a well-defined perimeter or established access points. Although individual bases in the cluster maintain perimeter security, entry, and access control, security requires more personnel than with a single base. Figure 3-2 depicts an example layout of a notional BSA using base clusters to support a BCT instead of a large single-base footprint.

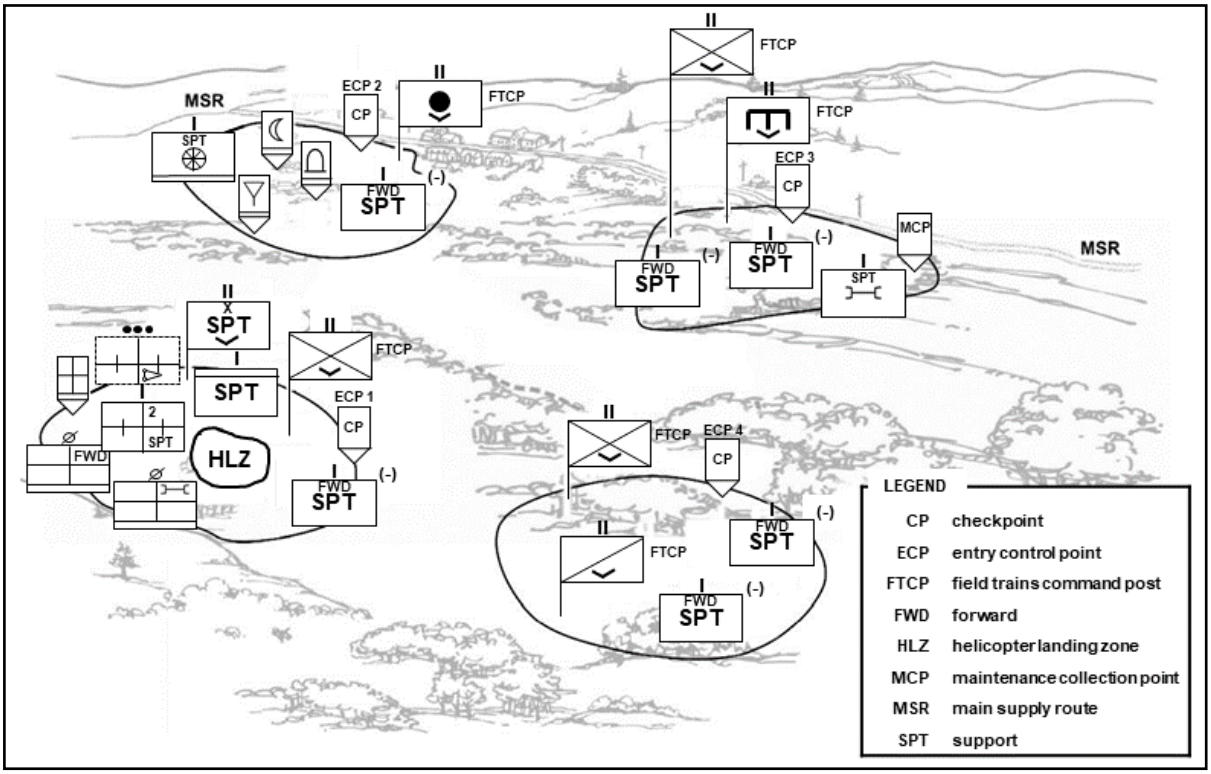

Figure 3-2. Example of a notional brigade support area layout using a base cluster

3-14. The units and elements located in the base cluster vary on several factors. The senior commander (normally not the medical unit commander) within a base cluster is also the base cluster commander and operates the base cluster operations center. The base cluster commander has responsibility for base cluster security. The base cluster commander can direct personnel from the medical company to assist in base cluster security if such security does not violate any of the provisions of the Geneva Conventions or degrade the AHS mission. The base cluster commander normally has no command or control over AHS support operations. The medical company's higher headquarters coordinates initial support requirements for each

medical company and attached units. This coordination is with supporting units and each of the base cluster operations centers as the medical companies displace and establish operations. The medical company commander and unit leaders also interface and coordinate with supporting units and the base cluster operations center to ensure continuation of support.

3-15. The higher headquarters S-2, S-3, and medical company coordinate site selection and obtain approval with the base cluster operations center prior to establishing the company areas. The base cluster operations center provides guidance on security and briefs the medical company on base cluster operating procedures and the locations of supported units. For additional information on the classes of supply, refer to FM 4-0. Each medical company should verify the locations and identify the best routes to—

- Class I supply point (ration breakdown).
- Water distribution point.
- Class III supply points (bulk and package).
- Class II, IV, and VII supply points.
- Class VI supply point.
- Class IX supply point.
- Mortuary affairs collection point.
- Enemy prisoners of war collection point.
- Hospital (if not located in the same base).
- Supported units.
- Ammunition transfer holding point.
- Casualty collection points (if established).
- Ambulance exchange points (if established).

3-16. The higher headquarters participates in the initial reconnaissance of the new area and assists with site selection for establishment of the unit headquarters. Medical companies deploy to their separate geographical locations within the battalion's AO. The higher headquarters coordinates convoy clearances and security for the movement of medical company to their AO with the movement control center responsible for that AO. Prior to deployment to their areas of support, the medical companies conduct reconnaissance of their designated areas and select the best location within their areas for establishment of the company. The S-3 of the higher headquarters coordinates with the supported units' base cluster operations centers to ensure they plan for adequate space and the placement of medical company within their base cluster.

SITE SELECTION

3-17. Site selection is an important factor impacting the accomplishment of the company's treatment mission. Improper site selection can result in inefficiency and possible danger to unit personnel and patients. For example, if there is insufficient space available for ambulances to turn around congestion and traffic jams in the MTF AO can result, or if the area selected does not have proper drainage heavy rains may cause flooding in the unit and treatment areas. The actual space allotted to the unit will be based on mission variables and the amount of operational space available to the support battalion; however, the optimal land space required for the establishment of a medical company is approximately 4.5 football fields (figure 3-3 on page 3-6) or an area 247 meters (810 feet) long by 98 meters (320 feet) wide. The site should accommodate the—

- Role 2 MTF treatment areas.
- Class 3 helicopter landing zone (HLZ) at a minimum or Class 4 HLZ, which is preferred.
- Traffic pattern and lanes.
- Vehicle dispersion.
- Company lifecycle support area.

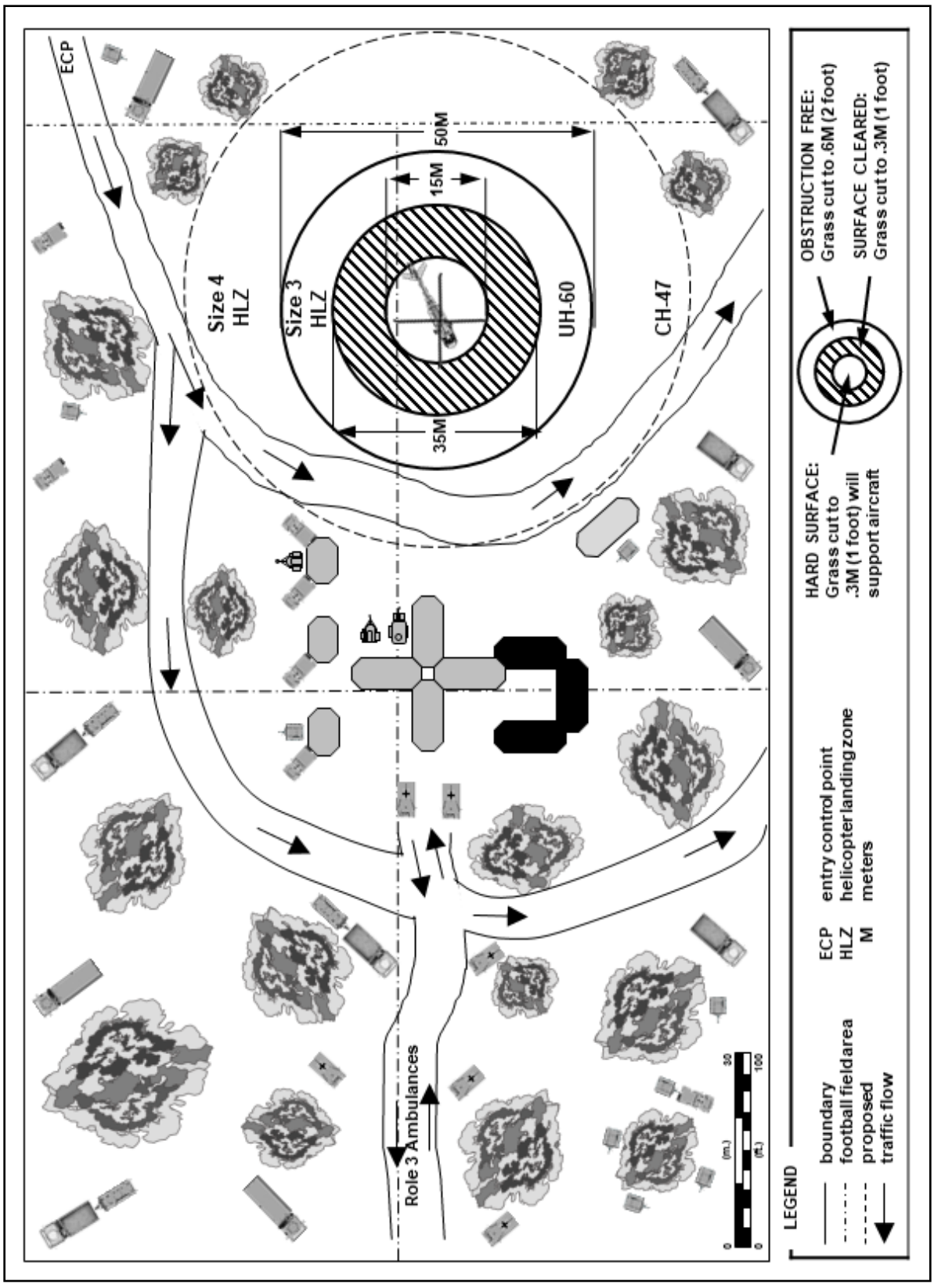

Figure 3-3. Medical company site layout with vehicle dispersion

3-18. The mission variables are mission, enemy, terrain and weather, troops and support available, time available, and civil considerations, each of which have informational considerations (METT-TC [I]). For more information on the mission variables, see FM 3-0. Informational considerations are those aspects of the human, information, and physical dimensions that affect how humans and automated systems derive meaning from, use, act upon, and are impacted by information. For more details about informational considerations, see FM 5-0.

Note. METT-TC (I) represents the mission variables leaders use to analyze and understand a situation in relationship to the unit's mission. The first six variables are not new. However, the pervasiveness of information and its applicability in different military contexts requires leaders to continuously assess its various aspects during operations. Because of this, "I" has been added to the METT-TC mnemonic. Information considerations are expressed as a parenthetical variable because it is not an independent consideration, but an important component of each variable of METT-TC that leaders must understand when developing an understanding of a situation.

3-19. The medical company will be competing with other sustainment units for space and location within the base cluster. Many of the factors, which influence AHS support operations, will also apply to the other sustainment units. It is important, therefore, to stress the unique requirements of the medical mission. The base cluster operations center provides guidance on security and briefs the medical company on base cluster operating procedures and locations of supported units and elements. Within the base cluster, the MTF should not be placed near hazardous materials (such as petroleum, oils, and lubricants and ammunition or storage areas), motor pools, and waste disposal sites. The selected site is not to be located near potential areas of filth, such as a garbage dump, landfill, or other waste disposal site. The site is at least 1.6 kilometers (1 mile) from breeding sites of flies and mosquitoes and one mile from native habitation when possible. If possible, the MTF should be established toward the center rather than on the perimeter of the base cluster.

COMMANDER'S PLAN AND MISSION

3-20. The specifics of the OPLAN, the way it will be executed, and the unit's assigned mission can affect the selection of a specific site. The requirements for an area that is only to be used for a short period of time can differ significantly from an area that is expected to be used on an extended basis. For example, if the medical company's mission requires that it relocate or "jump" several times a day, complete treatment and holding areas will not be established; only essential services, shelters, and equipment will be used. On the other hand, if it is anticipated that the unit will be located at one site for an extended period, buildings, or pre-established shelters, if available, may be used.

Note. Buildings of opportunity should be inspected by the engineers prior to use as an MTF.

ROUTES OF EVACUATION AND ACCESSIBILITY

3-21. Ground evacuation is the principal means of evacuation for patients injured in the forward areas. The Role 2 MTF must be situated so it is accessible from several different directions or areas. It should be situated near and be accessible to main road networks and air corridors but not placed near lucrative targets of opportunity (such as bridgeheads). The site should not be so secluded that incoming ambulances have difficulty locating the Role 2 MTF.

EXPECTED AREAS OF PATIENT DENSITY

3-22. To ensure the timely delivery of AHS, the Role 2 must be in the general vicinity of the supported forces (or supported Role 1 MTFs). Without proximity to the areas of patient density, the evacuation routes will be unnecessarily long, resulting in delays in both treatment and evacuation. The longer the distance is to be traveled, the longer it takes for the patient to reach the next role of care. This time delay reduces the number of ambulances available for clearing the battlefield as several ambulances will be in transit to the Role 2 at any given time.

HARDSTAND, DRAINAGE, OBSTACLES, AND SPACE AVAILABLE

3-23. The ground, in the selected area, should be of a hard composition not likely to become marshy or excessively muddy during inclement weather or temperature changes. This is particularly true in extreme cold weather operations where the ground is frozen at night and begins to thaw and become marshy during daylight hours. The area must be able to withstand a heavy traffic flow of incoming and departing ambulances in various types of weather.

3-24. The site should provide good drainage during inclement weather. Care must be taken to ensure the site selected is not in or near a dry river or stream bed, has drainage that slopes away from the MTF location and not through the operational area, and does not have any areas where water can pool.

3-25. The area selected should be free of major obstacles that will adversely impact on the unit layout (such as disrupting the traffic pattern), cause difficulties in erecting shelters (overly rocky soil) or require extensive preparation of the area before the MTF can be established.

3-26. The space to establish the treatment and administrative areas of the unit is dependent upon the mission, expected duration of the operation, and whether CBRN hazards are anticipated. The site must be large enough to permit dispersal of the unit elements and expansion should augmentation be required. When fully establishing the site, at least 16,187 square meters (4 acres) of land are required for the treatment and administrative areas, not including helipad and parking area requirements.

COMMUNICATIONS

3-27. When establishing communications, the selected site must enable communications while minimizing the enemy's ability to intercept and locate transmissions. Additional consideration must be made for the emplacement of line-of-sight communication equipment that facilitates proper communication linkage while minimizing the enemy's ability to intercept and locate the communications equipment.

LIKELY ENEMY TARGETS

3-28. The site must not be too closely located to likely enemy targets. These include—

- Ammunition storage facilities or ammunition transfer holding points.
- Petroleum, oils, and lubricants points.
- Motor pools.
- Main supply routes (must be accessible from but not directly next to).
- Bridges.
- River crossing points.
- Strategic towns and cities.
- Industrial complexes or factories.

COVER AND CONCEALMENT

3-29. The area should provide maximum cover and concealment without hampering mission accomplishment or communications capability. Overhead cover is desirable for protection from CBRN contamination and effects in the event of an attack. The site selected should be easily defendable and maximize the use of available terrain features and defilade for cover and concealment. The extent of perimeter security requirements is dependent upon whether the unit is included in a base cluster (or its placement within the base cluster) or if it is solely responsible for its own security.

LANDING SITES (ZONES)

3-30. The site selected must have sufficient space available to serve as a landing site for incoming and outgoing air ambulances. Sufficient space must be allocated for establishing a landing site for contaminated aircraft downwind of the unit and treatment areas. For information on aircraft dimensions, refer to ATP 3-04.1. For HLZ requirements, refer to FM 3-21.38.

TRAFFIC FLOW OF PATIENTS AND VEHICLES

3-31. In establishing the traffic patterns within the unit area, four significant areas must be addressed:

- The selected site must permit the establishment of the treatment and administrative areas in such a manner as to maximize the smooth flow of patients through the triage, diagnostic, and holding areas. The use of overlapping internal traffic patterns should be minimized.
- The external traffic pattern must afford a smooth flow of vehicle traffic through the unit area. There must be sufficient space allocated for ambulance turnaround once the patient has been delivered to the triage area. Intersections accommodating cross-traffic should be avoided as they present the potential for traffic jams and accidents. The flow of traffic should be in one direction only.

Note. Two-way traffic can cause confusion, particularly when loading and unloading patients.

- A route from the landing site to the triage area must be established to minimize the distance the patient must be carried and affords easy access to the treatment area.
- Traffic patterns of the other units in the base cluster must be considered when determining internal routes.

EQUIPMENT PLACEMENT

3-32. In selecting the site, the placement of equipment must be considered as certain pieces of equipment require operational or tactical placement within the company area. It is preferable to maximize the use of natural terrain features within the site to provide a portion of this shielding rather than having to rely solely on the use of sandbags or constructed barriers. For example, trailer-mounted 10-kilowatt generators must be placed in such a manner as to enhance their safe operation and to reduce their heat signature and noise level yet be close enough to unit and treatment areas using a limited amount of cable.

DECONTAMINATION AREA

3-33. The patient decontamination site (PDS) should be large enough to decontaminate the estimated number of CBRN casualties. The PDS should be downwind of the unit and treatment areas. For more information on establishing a PDS, refer to ATP 4-02.7.

The following paragraph implements STANAG 2931.

GENEVA CONVENTIONS ADHERENCE

3-34. The Geneva Conventions afford the medical unit a certain degree of protection from attack. The extent to which the combatants and irregular forces on the battlefield are adhering to the provisions of the Geneva Conventions has a bearing on site selection in that it may dictate the degree of required security for the unit.

MEDICAL COMPANY CONFIGURATION

3-35. The Role 2 MTF layout is METT-TC (I) dependent. Figure 3-4 on page 3-10 is an example of a notional Role 2 MTF with EAB augmentation.

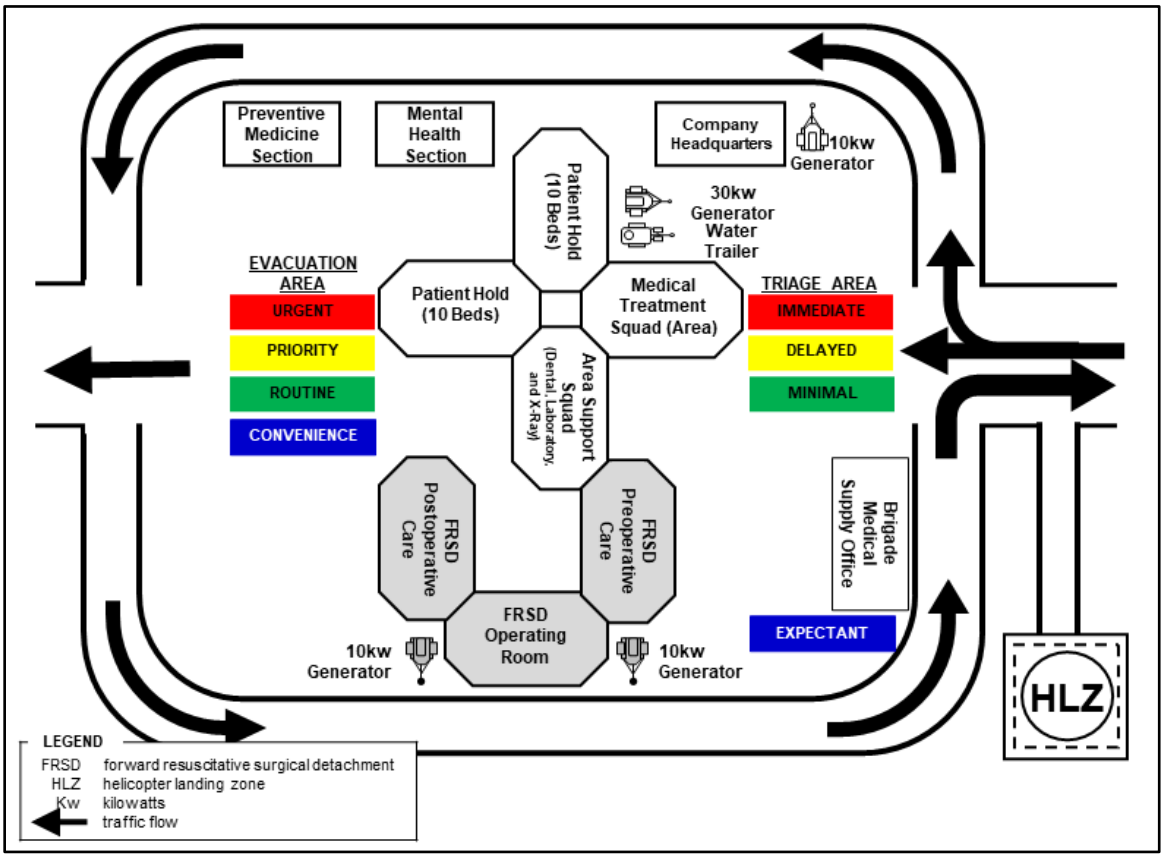

Figure 3-4. Suggested layout of a Role 2 medical treatment facility with augmentation units

3-36. The color codes depicted in figure 3-4 for the triage area are in accordance with the standard triage categories used in the AHS during daytime operations for marking. During night-time operations, these areas are marked with the same chemical light color; however, the expectant area is marked with blue chemical lights. The color marking system must be identified in the unit SOP.

3-37. The color codes depicted in figure 3-4 for the evacuation area are not in accordance with a current AHS marking standard; however, they follow the same logic of triage. Most critical is red, and then they proceed through yellow and green as in triage. The convenience area is traditionally not marked as these patients may be held in patient holding area or used as manpower during MASCAL situations. The color marking system must be identified in the unit SOP.

EMPLOYMENT OF THE COMPANY HEADQUARTERS

3-38. The company headquarters must ensure communications are established with the other units within the support area and the higher headquarters. All security precautions and requirements must be met according to higher headquarters operating procedures. Only essential equipment is set up to support the medical company operations.

3-39. If the failure to camouflage endangers or compromises tactical operations, the camouflage of the Role 2 MTF may be ordered by a NATO commander of at least brigade level or equivalent. Dispersion of tents and equipment is accomplished to the maximum extent possible. An entry control point into the medical company area must be established.

Note. North Atlantic Treaty Organization STANAG 2931 provides for camouflage of the Geneva emblem and red crescent on medical facilities where the lack of camouflage might compromise tactical operations. This STANAG defines "medical facilities" as medical units, medical vehicles, and medical aircraft on the ground. Medical aircraft in the air must display the distinctive Geneva emblem. Camouflage of the Geneva emblem means covering it up or taking it down. The black cross on an olive background is not a recognized emblem of the Geneva Conventions.

COMMAND ELEMENT

3-40. The company commander, assisted by executive officer and the first sergeant, supervises the establishment of the company. The commander monitors all elements as the company sets up. The command element ensures it is established according to the unit layout plan and the tactical SOP.

3-41. The executive officer supervises and monitors the establishment of the company area for compliance with its higher headquarters tactical SOP and its base cluster operations center guidance. The executive officer coordinates with supporting units for short- and long-term support requirements. Both the commander and executive officer should communicate with supported units as soon as possible. This communication should include—

- Army Health System support requirements (displacement of ambulance and treatment teams to remote sites in support of units within the company's AO).
- Sick call services.
- Medical evacuation support and procedures.
- Dental sick call.
- Mass casualty plan.
- Chemical, biological, radiological, and nuclear patient decontamination support.
- Operational public health.
- Combat and operational stress control.
- Health threat.
- Return to duty policies and procedures.
- Class VIII resupply.

Note 1. When CBRN patient decontamination is required, the supported units are responsible for providing a minimum of eight nonmedical personnel (augmentees) to perform patient decontamination (under medical supervision), according to ATP 3-11.32, ATP 4-02.7, and ATP 4-02.85. Medical company personnel train the nonmedical personnel (augmentees) on patient decontamination procedures. Additional personnel from supported units may be trained to transport patients by litter.

Note 2. All Role 2 medical companies are authorized three MES chemical agent patient protective wrap and three MES for patient decontamination and chemical treatment. Each MES patient protective wrap has supplies to treat 12 chemically contaminated patients. Each MES patient decontamination and chemical treatment has enough supplies to decontaminate and treat 60 patients.

3-42. The first sergeant ensures all unit security requirements are accomplished. The first sergeant supervises the establishment of the company headquarters and the troop billeting areas and monitors field sanitation team activities. The operations and CBRN element assist in establishing the company headquarters.

SUPPLY ELEMENT

3-43. The supply element establishes both the unit and medical supply area (in the MCAS and SBCT BSMC). It ensures all supplies are secured, properly stored, and protected from the environment. It establishes the unit petroleum, oils, and lubricants and water points. The supply element supports the company during establishment and provides additional items, such as sandbags, tent pegs, and other standard equipment, normally associated with establishing the company.

OPERATIONS AND COMMUNICATIONS ELEMENT

3-44. The CBRN specialist supervises the company additional duty CBRN team by training them on the employment and maintenance of individual and unit CBRN equipment. The CBRN specialist coordinates with the higher headquarters and base cluster operations center and monitors the placement of CBRN detectors. The CBRN specialist supervises and monitors unit personnel for compliance with the current mission-oriented protection posture and tactical SOP and for contamination mitigation measures. The CBRN specialist coordinates with veterinary services in cases of possible CBRN contamination of food.

3-45. Unit communications personnel set up communications equipment and establish the net control station for the company. They establish contact with the battalion headquarters and with supporting and supported units. They establish the medical company net control for unit assets. Communications personnel establish the internal wire communications network. They connect to the U.S. Army's Combat Service Support Automated Information Systems Interface, also known as CAISI, network operated by the SASMO.

REAR OPERATIONS

3-46. Rear operations are actions, including area damage control, taken by units, singly or in a concerted effort, to secure and sustain the force, neutralize or defeat enemy operations in the rear area, and ensure freedom of action in deep and close operations. Medical units are established within base cluster to afford them the protection offered by the other combat, support, and sustainment forces. Medical units are limited by the provisions of the Geneva Conventions in responding to enemy action. For additional information on self-defense and the defense of patients, refer to FM 4-02.

MASS CASUALTY SITUATIONS

3-47. Medical units must be prepared to respond to MASCAL situations (see appendix B) that may arise in the rear area. Thorough planning, effective communications, and training and rehearsal of these types of operations are required if they are to be successfully executed.

COMMAND POST OPERATIONS

3-48. The company CP is the principal facility employed by the medical company commander to C2 unit AHS support operations. It is typically staffed with the commander, executive officer (health services administration assistant or medical operations officer [MEDO]), first sergeant, and other individuals the commander designates (depending on the operation), such as the CBRN specialist and the forward signal specialist.

3-49. The commander establishes priorities and defines the level of authority within the CP. The extent of operational authority given to members of the CP staff is based on the commander's desires and the staffs' experience. The exact operational authority is defined in the tactical SOP.

3-50. The commander also establishes procedures in the unit tactical SOP that clearly identify those CP activities and functions that must be accomplished on a routine basis to support the operation and those that require command approval. In all situations, the commander will be kept informed.

3-51. During support operations, the CP receives, analyzes, coordinates, and disseminates information critical to successfully accomplish the mission. The tools used in the CP to facilitate C2 are a journal, a situation map, and an informational display.

Journal

3-52. A journal is an official chronological record of events about a unit or a staff section during a given period. A journal is prepared and maintained during combat, training exercises, other military operations (such as disaster relief or humanitarian assistance operations) and as directed by the commander. The journal is maintained on DA Form 1594 (*Daily Staff Journal or Duty Officer's Log*). For additional information and sample journal entries, refer to TC 3-22.6.

Situation Map

3-53. A situation map is a graphic presentation of the current organizational situation. A general situation map may be supplemented with one or more overlays showing specific items (such as barricades or obstacles). At the company level, one situation map may be used; however, specific medical functions may maintain their own specific situation map (such as MEDEVAC with preplanned CCPs and forward-sited ambulance assets). Situation maps should be updated per the tactical SOP with information obtained from higher headquarters and changes in the tactical situation. Situation maps, at a minimum, show—

- Symbols as required to portray the friendly and enemy situation. For information and guidance on the use of symbols, refer to FM 1-02.2.
- Boundaries and frontline trace applicable to the current operations.
- Other control measures applicable to the operation (such as phase lines).
- Location of CPs for adjacent units, supported units, and higher headquarters.
- Location of supported units.
- Civilian installations, allied military installations, airfields, seaports, and rail networks, as appropriate.

Information Display

3-54. An information display, automated or manual, may be required to supplement details contained on the situation map or to make information available that is not suitable for posting on the situation map. Information associated with the situation map is located adjacent to it for easy viewing and posting. A typical display is in the form of a chart that reflects information such as task organization, personnel status, supplies and equipment status, organization and strengths (personnel, equipment, and health status) of the unit, and communications status. The CP must be staffed and equipped for 24-hour operations to facilitate accurate and timely information display updates. An information display should—

- Display the commander's determined information requirements.
- Readily show the essential information.
- Permit prompt changes.

Note. A display that is not up to date is misleading and serves no useful purpose.

EMPLOYMENT OF THE PREVENTIVE MEDICINE SECTION

3-55. Operational public health, formally PVNTMED, activities begin prior to deployment to minimize DNBIs. Actions taken include—

- Ensuring command awareness of potential health threats and implementation of appropriate protective measures.
- Ensuring the deployment of a healthy and fit force.
- Monitoring the command's immunization status. For more information on the prevention of infectious diseases, refer to AR 40-562.
- Monitoring the status of individual and small unit personnel protective measures (see ATP 4-25.12 and TC 4-02.3).

- Monitoring personnel protective measures against heat and cold injuries and food-, water-, and arthropod borne diseases (see TM 4-02.33, TM 5-632, TB MED 507, TB MED 508, TB MED 530, and TB MED 577).
- Performing OEH site surveillance including environmental sampling and analysis on air, water, and soil to assess for any health-related impact (see ATP 4-02.82).
- Ensuring training in personnel protective measures that will assist in countering the health threat.
- Monitoring the use of prophylaxis, such as antimalarial tablets.
- Ensuring adequate unit field sanitation team personnel and supplies.
- Monitoring, collecting, analyzing, and recording medical surveillance data.

3-56. The division PVNTMED officer, medical company commander, and PVNTMED personnel must be proactive and initiate action on presumptive information to reduce the health threat early. They cannot wait until the incapacitation of troops occurs before acting, for example—

- If mosquito-borne diseases are endemic to troop assembly areas and known or suspected vectors are present, mosquito control efforts should be initiated.
- Inadequate sanitation practices must be corrected before the first case of enteric disease appears.
- Establishment of bivouac locations on sites contaminated with toxic industrial materials should be avoided.
- Establishment of solid waste (SW) collection and treatment, regulated medical waste collection and treatment, and hazardous waste (HW) collection sites must be coordinated in advance and located at appropriate distances from food, latrine, and bivouac activities.

3-57. It should be anticipated that—

- Sanitation breakdowns will occur while troops are still in debarkation assembly areas.
- Soldiers are at risk for arthropod-transmitted diseases upon entry to the AO.
- Lack of or delay in implementing preemptive actions can significantly impact on the forces ability to accomplish their assigned mission.

EMPLOYMENT OF THE MENTAL HEALTH SECTION

3-58. The Role 2 commander prioritizes the behavioral health mission based on input from the division psychiatrist and on the provisions of the division AHS support plan. The division psychiatrist is assigned to the division headquarters. The division psychiatrist serves as a clinical consultant, oversees the behavioral health care delivered throughout the division battle space, and provides guidance on the behavioral health provisions of the division AHS support plan.

3-59. Personnel assigned to the mental health section assist the division psychiatrist with the accomplishment of the section's duties. The mental health section may perform as COSC coordinators for selected units in the division rear. Mental health personnel will also assist with and provide COSC training to—

- Small-unit leaders.
- Unit ministry teams and staff chaplains.
- Battalion medical platoons.
- Patient holding squad and treatment squad personnel of medical companies.

3-60. The mental health section staff consists of a behavioral science officer and a behavioral health specialist. The behavioral health specialist assists the behavioral science officer with the accomplishment of the officer's duties. The behavioral science officer participates in staff planning to represent and coordinate COSC activities throughout the AO.

3-61. The mental health section provides training and advice in the control of stressors, the promotion of positive combat stress behaviors, and the identification, handling, and management of misconduct stress behavior and COSR Soldiers. It coordinates COSR training for supported units through the Role 2 commander as required. The section collects and records social and psychological data and counsels personnel with personal, behavioral, or psychological problems. General duties for personnel assigned to this section include—

- Assisting in a wide range of psychological and social services.
- Providing classes in stress control.
- Compiling caseload data.
- Providing counseling to Soldiers experiencing emotional or social problems.
- Referring Soldiers to specific hospital services or COSC unit facilities, physicians, or agencies when indicated.
- Conducting or facilitating traumatic event management, counseling, and therapy sessions and leading group discussions.
- Providing individual case consultation to commanders, battalion surgeons, and PAs within the supported AO.
- Collecting information from units regarding unit cohesion and morale, which includes—
  - Obtaining data on disciplinary actions.
  - Collecting information with questionnaires.
  - Conducting structured interviews.
  - Collecting information on individual COSR cases pertaining to the prior effectiveness of the Soldier, precipitating factors causing the Soldier to have COSR, and the Soldier's RTD potential.

3-62. The mental health section uses the Role 2 MTF as the center for its operations, but it is mobile throughout the AO. The section's primary functions are to promote positive stress behaviors, diagnosis and monitor traumatic brain injuries, prevent unnecessary evacuations, and participate in RTD decisions. Through the treatment platoon and ambulance platoon leaders and company commander, the section keeps abreast of the tactical situation and plans and projects requirements for COSC support when units are pulled back for rest and recuperation.

EMPLOYMENT OF THE TREATMENT PLATOON

3-63. The treatment platoon establishes its elements according to the unit's tactical SOP. Platoon personnel set up patient treatment and holding areas. Some platoon personnel are detailed, as necessary, to assist with unit security and other unit activities associated with establishing and conducting company operations. Treatment section personnel assist the platoon with establishing the clearing section and preparing for further deployment of treatment teams according to the OPORD or OPLANs. The tactical SOP should address load plans that facilitate timely setup of the Role 2. The reverse loading of equipment is planned where Role 1 capabilities are loaded last and then some order of limited equipment is loaded to establish tentage, power distribution, and patient holding and area support squad capabilities according to the tactical SOP. This reverse loading allows the equipment that is immediately needed to be offloaded first.

3-64. Seriously ill or wounded patients arriving at the Role 2 are provided medical treatment, including initial surgery when required, and stabilized for further evacuation. Patients reporting with minor injuries, COSR, and illnesses are treated within the capability of attending medical personnel. These types of patients are either held for continued treatment for up to 72 hours or evacuated to the supporting MTF for further treatment, evaluation, and disposition. Other functions of this Role 2 MTF include—

- Providing consultation and limited pharmacy, clinical laboratory, and radiology diagnostic procedures.
- Diagnosis, monitoring, and treatment of suspected traumatic brain injury.
- Recording all patients seen or treated at the MTF.
- Verifying the information contained on the DD Form 1380 of all patients evacuated to the facility.
- Monitoring casualties, when necessary, for CBRN contamination prior to medical treatment.
- Ensuring decontamination of CBRN-contaminated patients is accomplished prior to entrance to the MTF to protect other patients, medical staff, and equipment from contamination.

Note. Patient decontamination is performed by a minimum of eight nonmedical personnel (augmentees) provided by supported unit and supervised by medical personnel.

3-65. Evacuation from the Role 2 is performed by ground and air ambulances from the EAB MEDEVAC companies. If a brigade is operating out of sector, patients may require evacuation by U.S. Air Force assets from the support area.

3-66. Ammunition and individual weapons, to include sensitive military equipment (such as electronic devices) belonging to patients to be evacuated further to the rear are collected and safeguarded by the Role 2 personnel and returned to the S-4 of the supported unit or as directed by the tactical SOP. Patients who are being held at the holding facility but expected to RTD within 72 hours may retain their weapons and other equipment, or the equipment can be given to the unit armorer for safekeeping pending the patient's final disposition. Patients traveling to the rear for routine medical consultation will retain their individual weapons and equipment, as they will RTD from the rear supporting facility. For a detailed discussion on the operation of a Role 2 on an urbanized terrain, see chapter 4.

ROLE 2 CONFIGURATIONS

3-67. Having a standardized and rehearsed configuration for the most common OEs will greatly improve medical processes and patient survivability. Each configuration is customized to the resources and capabilities of the medical company executing it, but all configurations will maintain similar attributes.

3-68. Like Role 1 MTFs, Role 2 MTFs should have different configurations established consisting of tailgate medicine, hasty, short-term, and long-term configurations. These configurations should build on the previously established configuration.

Tailgate Medicine

3-69. The first immediate configuration is called tailgate medicine. This configuration is used for treatment on the move. This configuration contains only the most critical equipment, usually one treatment table and minimal TCCC medical supplies and devices. This configuration provides for an extremely rapid set up and tear down, but it is restrictive in the management of a MASCAL and complicated injury treatment.

Hasty Configuration

3-70. The hasty configuration builds on those capabilities established with tailgate medicine. This configuration is used for short halts longer than a few hours or during rapid maneuver operations. The hasty configuration has critical TCCC equipment and ancillary specialized equipment but leaves "sick call" items loaded until needed. This configuration usually has two or four treatment tables depending on the number of medical providers available. This configuration is rapidly set up and torn down, and it provides better survivability for the MTF when placed close to the forward line of own troops or when enemy activity is likely requiring potential survivability jumps.

Short-Term Configuration

3-71. The short-term configuration is used for locations where medical support is relatively safe from enemy attack and movement of the MTF is not expected for longer periods of time. The short-term configuration includes all equipment and treatment tables. This configuration usually includes shelter for the treatment area. The short-term configuration is a slower set up and tear down, but it allows for more comprehensive care and patient stabilization.

Long-Term Configuration

3-72. The long-term configuration is used for locations where medical support is relatively safe from enemy attack and the MTF is fixed. The long-term configuration includes all equipment and usually includes a tent or hard standing building. This configuration is very slow to set up and tear down, and it should build on the short-term configuration. This configuration is the most favorable environment for comprehensive care and patient stabilization. In this configuration, the triage point and treatment staging areas of immediate, delayed, minimal, and expectant, commonly referred to as the IDME or DIME, should be positioned adjacent to the company CP in an area that facilitates visual and verbal confirmation of actions. The triage point is a location

where casualty evacuation (CASEVAC) and MEDEVAC vehicles are stopped, and casualties or patients are offloaded, triaged, and moved into the triage stations.

Note. Treatment interventions should not occur at the triage point. If a casualty or patient is assessed and needs immediate intervention, the casualty or patient is moved to the appropriate triage location and treated there.

ROLE 2 ELEMENTS

3-73. The medical treatment platoon headquarters, the medical treatment squad (area), the area support squad, and the patient holding squad serve as the nucleus of the Role 2. A treatment team from the medical treatment squad (area) is tasked with establishing and conducting tailgate medicine until the Role 2 is established. The medical treatment platoon headquarters should coordinate with the Role 2 evacuation platoon to ensure the HLZ and ambulance turnaround point are cleared and marked.

3-74. The medical company treatment platoon's Role 2 elements operate the MTF. In the division support area, cavalry regiment support area, BCT BSA, and the separate (corps) support area, it is collocated with the mental health, PVNTMED, and the FRSD when attached. All medical companies have the capability to provide both Role 1 and Role 2 care. The division support area Role 2 also serves as the backup for the BSA Role 2s.

3-75. The Role 2 established by the medical company of a separate brigade provides Role 1 and Role 2 medical care to all units operating in its support AO. The Role 2 established by the MCAS in corps and EAB provides Role 1 and Role 2 medical care on an area basis for units within its AO. Personnel assigned to the Role 2 are involved in assisting with establishment of the Role 2 MTF and preparing for deployment within the medical company AO to conduct station or dispensary-type operations.

Treatment Platoon Headquarters Element

3-76. The platoon headquarters element supervises the establishment of platoon operations. The platoon leader directs setup operations and supervises the displacement of treatment squads or teams, when necessary. The treatment platoon field medical assistant aids the platoon leader in supervising establishment operations and coordinates the displacement of treatment squads or teams with company headquarters and supported units. The field medical assistant ensures all platoon elements perform maintenance on their assigned equipment and report any deficiencies that are not correctable to the platoon leader, who reports them to the company commander. The treatment platoon sergeant is responsible for assisting the platoon leader and field medical assistant with establishing platoon operations. The platoon sergeant ensures the platoon treatment elements are established according to the tactical SOP. The platoon sergeant supports the first sergeant by providing platoon personnel to assist with security establishment and other operational activities of the company headquarters.

Medical Treatment Squad (Area)

3-77. The medical treatment squad (area) establishes and operates the Role 2. The Role 2 is established according to the unit layout and the company tactical SOP. Combat and operational stress control and PVNTMED personnel normally establish in the vicinity of the Role 2. The medical company may be augmented with a FRSD.

3-78. When establishing the MTF, sufficient space must be allocated to accommodate the normal clinical elements of a medical company, as depicted in figure 3-3 on page 3-6, with a possible augmentation of other supporting elements. This augmentation may include a mental health section, a PVNTMED section, a FRSD (augmented or organic), and other medical specialty teams or elements that may be METT-TC (I) driven. Some of the elements depicted in this layout, such as the mental health, PVNTMED, and optometry sections, are not applicable to all medical companies (refer to chapter 2 for discussions on the organizational structure of medical companies).

3-79. Field surgeons direct the activities of the treatment squad. They identify the treatment team tasked with providing medical support for the company during movement and establishment of operational procedures.

3-80. The medical treatment squad (area) is augmented by the personnel assigned to the medical treatment squad when the medical treatment squad personnel are not operationally employed forward. The equipment from the medical treatment squad should not be used to conduct Role 2 MTF operations as it should stay configured and loaded to conduct the operations as discussed in this chapter.

Area Support Squad

3-81. The area support squad establishes its patient treatment areas according to the layout and the tactical SOP. The dental treatment section is established adjacent to the Role 2. The dental officer supervises the placement of dental supplies and equipment within the dental treatment area. The laboratory and radiology elements are normally established within the Role 2 area. Precautions for operating radiological equipment must be observed. Radiation hazard areas adjacent to the radiology facility must be clearly marked and blocked, so company personnel are prevented from crossing.

Patient Holding Squad

3-82. The patient holding squad sets up the patient holding area. The patient holding area is normally adjacent to the Role 2. The treatment platoon leader, based on the commander's guidance, troop concentration, and casualty estimates, determines the number of cots set up. Near a patient holding area, a water point, a latrine, and a handwashing area should be established for the convenience of those patients being held at this facility.

3-83. Although the patients being held in the patient holding squad area are not in an inpatient status, the squad area should be operated and maintained in a similar manner to a multi-patient room or ward to prevent infectious disease transmission. On an open ward (multi-bed large room) for patients who require droplet precautions, it is recommended that patients with like organisms should be placed side by side, and infected patients should be placed as far away from other patients as possible (corner and end locations). It is recommended that a minimum separation distance of 1.8 meters (6 feet) be used between patients. To maintain the minimum separation between patients, the medical chests that are a component of the MES, patient hold can be placed between the patient cots to maintain spacing and provide an additional work surface. It is also recommended that a curtain or barrier be placed between the patients.

EMPLOYMENT OF THE EVACUATION PLATOON

3-84. Evacuation platoon operations are an essential link in clearing the battlefield of the wounded, thus enabling the tactical commander to exercise control over the tactical situation. The ambulance platoon locates with the treatment platoon for mutual support. The ambulance platoon is 100 percent mobile because all its assets may be totally dispatched at any given time. Each of its ambulance teams carry an on-board MES designed for medical emergencies and en route care. Once the medical company is deployed to its AO, the platoon establishes contact with supported medical elements operating in its area of support.

3-85. Direct support ambulances are normally pre-positioned with their supported units. Area support ambulances may be dispatched to units positioned in or near the medical company that are receiving area medical support.

3-86. The evacuation platoon leader and platoon sergeant conduct reconnaissance of the area supported to establish primary and alternate evacuation routes, to verify locations of supported units, and to field site ambulance teams as necessary. Ambulance crews should provide ground-up refinement to the ambulance shuttle system consisting of a planned ambulance loading point (ALP), ambulance control point, and an ambulance relay point (ARP).

3-87. The platoon leader and platoon sergeant coordinate support requirements with supported units for ambulance platoons placed in DS. Ambulance platoon personnel obtain appropriate dispatch and road clearances prior to departing company or supported unit areas. The platoon leader ensures maps and overlays are provided to platoon personnel. If time and fuel permit, the platoon leader or platoon sergeant may take

ambulance drivers on a rehearsal of the evacuation routes. The platoon leader or platoon sergeant coordinates and establishes the ambulance shuttle system as required by the MEDEVAC mission.

3-88. The DS ambulances, normally part of the forward support squad of the BSMC, are usually positioned forward with the Role 1 MTFs of the maneuver battalions. The support operations section-medical (SPO-MED) assists in the synchronization, deconfliction, and support of the DS ambulances with Role 1 to ensure Class I, III, V, and IX requirements are met. The DS ambulances normally evacuate patients from aid stations back to ALPs where patients are placed in a wheeled or air ambulance for further evacuation to the Role 2 MTF. Wheeled ambulances are used as general support for area support missions and for MEDEVAC missions where patients do not require the added protection an armored ambulance provides.

3-89. Ambulance platoon personnel ensure the HLZ and ambulance turnaround points for the Role 2 are cleared and marked, assist with establishment of the medical company, and provide available personnel as tasked by the first sergeant. For definitive information on MEDEVAC operations, refer to ATP 4-02.2.

3-90. Administratively, ambulance drivers should be briefed on the tactical situation in the area in which they will be providing MEDEVAC support. Ambulance crews must conduct a thorough route reconnaissance and develop strip maps prior to initiating MEDEVAC operations. During the planning process and continuously once the operation has begun, the ambulance platoon leader and the medical company commander must prepare casualty estimates for the tactical operation to ensure there is sufficient AHS coverage for the operation.

3-91. The MEDEVAC plan should include an overlay depicting (at a minimum) the location of supported units, CCPs, Role 1 MTFs, and the points in the ambulance shuttle system. The platoon leader should also obtain the sustainment and operations overlays for the tactical operation. These overlays provide valuable information, such as the location of minefields, obstacles and barriers, artillery target reference points, and air corridors. This information is essential to enhance the survivability of the ambulance crews by decreasing incidents of fratricide and increasing mobility of the evacuation assets.

3-92. The ambulance platoon leader and platoon sergeant must be proficient at map reading, terrain analysis, communications, and reading operational graphics (see FM 1-02.2) to successfully accomplish the MEDEVAC mission. The platoon leader team establishes their location, so they can best control the MEDEVAC operation. Their location will vary with each tactical operation and can include—

- Combat trains.
- Casualty collection points.
- Ambulance exchange points.
- Ambulance relay points or other locations along the ambulance shuttle system.
- Medical company area.
- Central location behind supported units.

3-93. The platoon leader maintains the running estimate for the platoon that includes—

- Class VIII consumption based on reported patients.
- Class III (petroleum, oils, and lubricants) based on route, speed traveled, and idle times.
- Duration of each mission.
- Checkpoint notifications and triggers for actions.
- Reporting requirements of DS ambulances at ALPs.
- Duration of each mission and crew rest tied to estimates to support of the company (for example, the evacuation platoon at MASCAL).

3-94. One of the keys to successfully accomplishing the MEDEVAC mission is communications and control. It is essential that communications be effective and maintained between the supported units, the ambulance assets, the ambulance platoon leader team, and the supporting corps evacuation elements.

3-95. Ambulances assigned to division BCTs are equipped with communication enablers that can be used to pass MEDEVAC request information and instructions. Supporting EAB ambulances, however, may not be radio equipped. Medical evacuation information must, therefore, be passed through medical channels by returning ambulances crews, and information is then relayed back through ambulance crews returning to the forward areas. The ambulance platoon tactical SOP must include procedures concerning how to conduct

evacuation operations during periods of radio silence. For the ambulance platoon leader to ensure platoon assets are being efficiently employed, the platoon leader must stay abreast of the tactical situation, the tempo of the battle, and the areas of patient density. There are several employment options available to the medical commander to ensure there is timely and efficient MEDEVAC coverage for the units supported and that contact is maintained with these units.

CASUALTY COLLECTION POINT

3-96. In intense combat operations, CCPs are established along routes where it is anticipated that wounded Soldiers traveling to the rear would naturally follow (lines of patient drift). These points can be established in areas where terrain canalizes traffic or locations near or adjacent to improved roads. In addition to ambulance assets, treatment assets may be collocated. These points may or may not be staffed with treatment and MEDEVAC personnel. As with the ambulance shuttle system, the role of care designating the point is responsible for its staffing.

FORWARD SITING OF AMBULANCES

3-97. The medical company ambulances can be forward sited with the Role 1 MTF. This provides immediate and responsive support to that facility.

AMBULANCE SHUTTLE SYSTEM

3-98. The *ambulance shuttle system* is a system consisting of one or more ambulance loading points, relay points, and when necessary, ambulance control points, all echeloned forward from the principal group of ambulances, the company location, or basic relay points as tactically required (ATP 4-02.2). It is an effective and flexible method of employing ambulances during combat. The various points within the ambulance shuttle may or may not be manned. If they are staffed, the role of care designating the point is responsible for providing that support. For a detailed discussion of the employment of the ambulance shuttle system and its various components, refer to appendix D and ATP 4-02.2.

EMPLOYMENT OF THE MEDICAL SUPPLY OFFICE

3-99. The medical supply office is organized to provide Class VIII supply and unit-level medical device maintenance for the brigades and attached medical units. It executes the division or brigade MEDLOG plan.

3-100. The mission of this element is to provide routine and emergency Class VIII resupply to Role 1 MTF and routine and emergency Class VIII resupply, to include blood product support for Role 2 MTFs. Personnel of this section plan, coordinate, and manage a variety of functional areas pertaining to technical materiel, equipment, and services used in support of the MEDLOG support mission. For definitive information on MEDLOG employment and operations, refer to ATP 4-02.1 and TC 8-270.

Note. Packed red blood cells are not currently issued to Role 1 MTFs as they lack the refrigeration capability to adequately maintain the supply.

SECTION II – OPERATION OF THE MEDICAL COMPANY

3-101. When employed in their AO, medical and dental officers of the medical company serve as staff surgeons and staff dental surgeons to area commanders. They advise commanders on the compliance with the Geneva Conventions, operations of the medical company, and the health and welfare of their commands. They also provide assessment of the health threat. The role of the staff surgeon and dental surgeon is outlined in FM 4-02.

GENEVA CONVENTIONS COMPLIANCE

3-102. As the United States is a signatory to the Geneva Conventions, all medical personnel should thoroughly understand the provisions that apply to AHS activities. Violations of these conventions can result

in the loss of the protection afforded by them. Medical personnel should inform the tactical commander of the consequences of violating the provisions of these Conventions.

VIOLATIONS

3-103. The following acts of medical personnel or medical facilities are inconsistent with the Geneva Conventions and are considered violations:

- Using medical personnel to man or help man the perimeter of nonmedical facilities such as unit trains, logistics areas, or base clusters.
- Using medical personnel to man any offensive-type weapon or weapons systems.
- Ordering medical personnel to engage enemy forces other than in self-defense or in the defense of patients or MTFs.
- Mounting a crew-served weapon on a medical vehicle.
- Placing mines in and around medical units or facilities regardless of their type of detonation device.
- Placing booby traps in or around medical units or facilities.
- Issuing hand grenades, light antitank weapons, grenade launchers, or any weapons other than rifles and pistols to a medical unit or its personnel.
- Using the site of a medical unit as an observation post or a dump or storage site for arms, ammunition, or fuel for combat.
- Making medical treatment decisions for the wounded and sick on any basis other than medical priority, urgency, or severity of wounds.
- Allowing the interrogation of enemy wounded or sick even though medically contraindicated.
- Allowing anyone to kill, torture, mistreat, or in any way harm a wounded or sick enemy soldier.
- Marking nonmedical unit facilities or vehicles with the distinctive Geneva emblem (red cross on a white background) or any other unlawful use of the Geneva emblem.
- Using medical vehicles marked with distinctive Geneva emblem (red cross on a white background) for transporting nonmedical troops, equipment, supplies or using full-tracked armored medical vehicles as a tactical operations center.

CONSEQUENCES

3-104. Possible consequences of Geneva Conventions violations are—

- Loss of protected status for the medical unit and medical personnel.
- Medical facilities attacked and destroyed by the enemy.
- Medical personnel considered prisoners of war rather than retained personnel when captured.
- Criminal prosecution for war crimes.
- Decreased AHS support capabilities.

3-105. The use of smoke and obscurants by medical personnel is not a violation of the Geneva Conventions (see ATP 4-02.2 and ATP 3-11.50, for information on use of smoke and obscurants). An example of medical personnel using smoke is using it to provide concealment while moving towards a casualty. Definitive information pertaining to the Geneva Conventions is found in FM 4-02 and FM 6-27.

PERSONAL EQUIPMENT, INDIVIDUAL WEAPONS, AND SENSITIVE ITEMS

3-106. Patients entering the AHS should be evacuated with the minimal amount of personnel equipment; however, the patient must always retain their CBRN protective mask and helmet. Patients should not be evacuated with individual weapons or other sensitive items. If a patient arrives to the Role 2 with individual weapons, the weapons must be cleared prior to the patient entering the MTF. The tactical SOP will be followed for those patients evacuated to the Role 2 facility with their weapons. Sensitive items should not

be accepted at the Role 2; however, if they are received, the tactical SOP should be followed to maintain accountability of that equipment.

MEDICAL SUPPLIES

3-107. All medical treatment elements must maintain their assigned MESs in accordance with the current stockage lists located on the Medical Materiel Information Portal (MMIP) website. The MMIP contains the functional description of each MES that details the specific planning factors for that equipment. As necessary, additional Class VIII supplies to support operational contingencies based on OPORDs or OPLANs may be required. The specific organization TOE should be referenced to identify the types and quantities of each MES for the Role 2 medical company.

MEDICAL SUPPORT REQUESTS

3-108. Army Health System support requests (including AE, ground ambulance, emergency medical resupply, and reinforcement support) are normally transmitted through the AO command headquarters. For example, the support operations section of a corps service support battalion may receive the requests, or they may go directly to the MMB or the MCAS.

3-109. Ground ambulances from the ambulance platoon evacuate patients from the Role 1 MTF to Role 2 MTF or directly to the Role 3 MTF according to the OPLAN. Patients treated by a Role 2 may either be RTD or held for 72 hours. Minimally ill or injured patients who overflow the facility (exceeding the patient holding capability) may be evacuated to Role 3 MTFs in coordination with the TMC or MEDBDE (SPT) medical regulating office.

3-110. Medical evacuation requests, both air and ground, should be submitted according to unit tactical SOP. For further discussion on AE procedures, refer to ATP 4-02.2.

MORTUARY AFFAIRS RESPONSIBILITIES

3-111. All commanders are responsible for unit MA requirements and proper disposition of remains. Selected unit personnel should be trained on unit-level MA tasks to ensure proper handling of remains and the deceased's personal effects. The nature of the AHS mission necessitates continuous interface with MA personnel. The headquarters section of the medical company is responsible for coordinating disposition of remains (only medical company personnel and patients) and personal effects to the MA collection point.

3-112. A temporary morgue area may be required at the medical companies for holding remains (patients and unit personnel only) while awaiting transportation to the MA collection point. These temporary morgue areas, if established, must be placed away from and out of sight of patient treatment and holding areas. Remains of deceased unit personnel or patients placed in the temporary morgue areas must have a completed DD Form 1380 (reviewed and signed by a physician) attached. (An exception to this procedure may be made during MASCAL situations. The remains may be tagged according to the tactical SOP, and DD Form 1380 may be completed when time permits.).

3-113. Coordination for transporting remains to the MA collection point should be accomplished without delay. Mortuary affairs collection point personnel ensure all remains have a completed DD Form 1380. When remains arrive at the MA collection point without a DD Form 1380 or if the DD Form 1380 is not signed by a physician, they will coordinate with the supporting medical company as discussed in JP 4-02 and ATP 4-02.7.

3-114. All personnel assigned to medical units must be knowledgeable as to the proper procedures for handling deceased personnel. All medical personnel should be aware of the principles governing medical disposition of deceased personnel. These principles are not an absolute. Field commanders should understand the rationale behind them. The deceased personnel are—

- Identified with the use of one of the identification tags and DD Form 1380, placed in a human remains pouch or wrapped in another materiel (when time permits), and then segregated from other casualties.
- Not evacuated with other patients.

- Transported on non-MEDEVAC resources since the handling and transportation of deceased personnel is not a medical function but a logistics function.
- Identified with a completed DD 1380 that is signed by a physician prior to the remains departing from the MA collection point.

PATIENT DISPOSITION AND REPORTING PROCEDURES

3-115. The patient disposition and patient report assist the AHS support planners in validating and updating their running staff estimates. The unit CP consolidates patient reports that originate within the unit and forwards pertinent data as directed by the tactical SOP to the higher headquarters (see appendix C for sample formats for patient reporting).

3-116. Patient accountability within the medical treatment chain must be always maintained. Prompt reporting of patients and their health status to the next higher headquarters and supporting personnel service company is necessary for the maintenance of a responsive personnel replacement system and the Army Casualty System. Patient accountability and statistical reporting (see figure 3-5 on page 3-24 for an example distribution of those reports) is designed to—

- Provide the commander with an accurate account of personnel losses due to enemy actions and related battlefield environment.
- Verify personnel replacement requirements.
- Quantify and prioritize corps MEDEVAC demands.
- Assist the command surgeon in the preparation of the AHS support estimates.
- Alert PVNTMED officers and the intelligence community to probable environmental health hazards (unidentified diseases) and potential enemy use of CBRN agents or weapons.

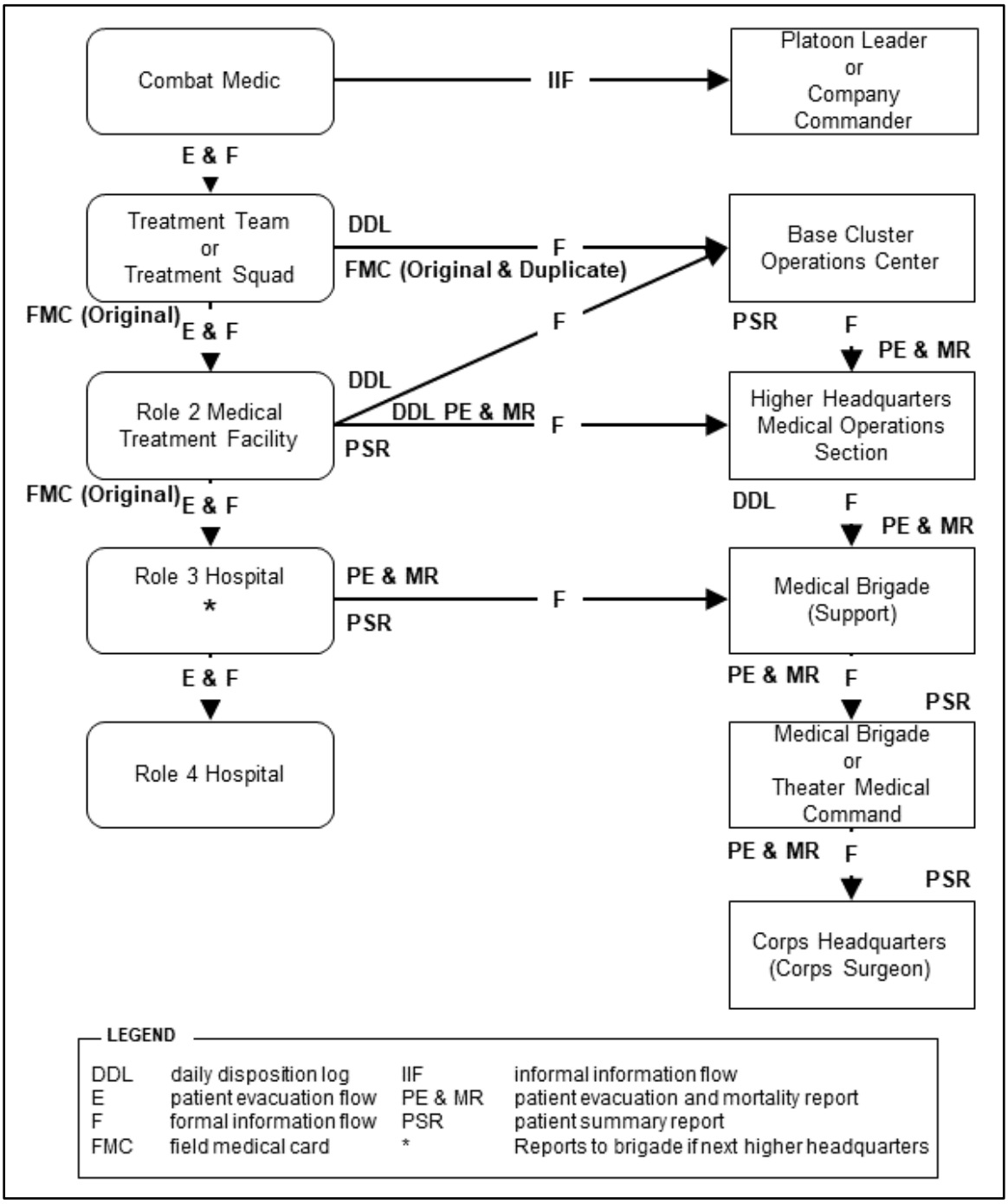

Figure 3-5. Patient accountability and status reporting

3-117. Patients being evacuated from the theater usually enter the Worldwide Joint Patient Movement System from a Role 3 MTF. When patients enter this system, their accountability becomes the joint responsibility. This system involves the coordinated use of intratheater and intertheater evacuation assets in support of patient regulating decisions made by medical personnel. This system is designed to coordinate the movement of patients from the point of injury or onset of disease, through successive echelons of medical care, to a MTF that can meet the needs of the patient. Major components of this system include—

- Global Patient Movement Requirements Center—a joint activity that is the DOD's single manager for the strategic and continental U.S. regulation and movement of uniformed Services patients.
- Theater Patient Movement Requirements Center, also known as TPMRC—an organization that is a functional merger of some of the functions of two existing organizations, the Joint Medical Regulating Office, and the Aeromedical Evacuation Control Center. The TPMRC communicates patient movement requirements to the AECC and the Service component that is responsible for executing the mission.

3-118. The Worldwide Joint Patient Movement System provides limited in-transit visibility of patients and evacuation requirements planning for intertheater AE and intratheater AE for the continental United States. For definitive information on patient movement in joint operations, refer to JP 4-02.

PATIENT TREATMENT

3-119. Battle injured or trauma patients arriving at Role 2 are treated using TCCC techniques. Disease and nonbattle injury patients are also provided medical treatment. Both types of patients are stabilized for movement. Patients reporting with minor injuries and illnesses are treated within the capability of the attending medical and dental officers. These patients are treated and returned to duty or, when necessary, are held for continued treatment and observation for up to 72 hours or evacuated to a Role 3 MTF for further treatment. Other functions of a Role 2 include—

- Providing consultation with limited pharmacy, clinical laboratory, and x-ray diagnostic services to support staff and unit physicians and PAs.
- Diagnosing, monitoring, and treating suspected traumatic brain injury patients.
- Maintaining a roster for all patients seen or treated at the Role 2 MTF.
- Notifying supported units of all patients from their organization who were processed through the facility (normally accomplished through the battalion personnel staff officer [S-1].)
- Verifying the information contained on the DD Form 1380.
- Monitoring, when necessary, for CBRN contamination prior to medical treatment (refer to ATP 4-02.7).
- Decontaminating and treating CBRN patients (refer to ATP 4-02.7, ATP 4-02.83, ATP 4-02.84, and ATP 4-02.85).

SURVIVABILITY OPERATIONS

3-120. The amount of equipment emplaced at a Role 2 MTF varies from mission to mission. The design and construction of shelters with adequate overhead cover is mandatory to ensure medical care and treatment is not interrupted by hostile action. Enemy activity may hinder the prompt evacuation of patients from the medical company; thus, adequate shelter for both holding and treating patients becomes paramount. For planning purposes, consider shelters for protecting personnel on litters or folding cots. Consider smaller shelters for surgery, x-ray, laboratory, dental, and triage functions. Deliberate shelters are generally well suited to these activities. Medical companies provide protection to organic personnel by constructing fighting positions and, when the situation permits, shelters for sleeping and other activities. Vehicle protective positions may be used to provide cover for ambulances and other vehicles. Helicopter landing sites should be camouflaged or concealed when they are not actively in use. For additional information on survivability operations, refer to ATP 3-37.34.

3-121. The Role 2 MTF may operate from a vehicle situated behind natural terrain cover. As time and resources permit, this site is improved with overhead cover and berms, allowing vehicle access and egress. The Role 2 MTF has limited patient holding capability; however, if patient evacuation is not possible, it is imperative that patients be effectively sheltered from enemy activity.

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Chapter 4

Medical Company (Role 2) Support to Operations

The primary responsibility of the medical company (Role 2) is to directly support the Role 1 medical support and provide area support to those units without medical personnel. The Role 2 accomplishes this by providing augmentation and reinforcement to the Role 1 MTFs. This chapter will explain how the Role 2 provides for the continuum of care by building on and reinforcing the Role 1 requirements to support LSCO.

SECTION I – CONDUCTING ARMY HEALTH SUPPORT FOR MILITARY ACTIONS

4-1. *Decisive action* is the continuous, simultaneous execution of offensive, defensive, and stability operations or defense support of civil authorities tasks (ADP 3-0). Commanders seize, retain, and exploit the initiative while synchronizing their actions to achieve the best effects possible. Operations conducted outside the United States and its territories simultaneously combine three elements of decisive action: offense, defense, and stability. Within the United States and its territories, decisive action combines elements of defense support of civil authority tasks and as required, offense and defense to support homeland defense. Army Health System support to decisive actions should be planned specifically for force projection, deployment and entry operations, rear operations, offensive operations, defensive operations, maneuver and enabling operations, stability operations, support operations, MASCAL operations, CBRN defensive operations, and force protection and security measures.

THREATS

4-2. The overt threat to medical units on today's battlefield is no different from the threat to other types of units. Deploying units are normally provided an overall threat assessment prior to their deployment, depending on the availability of time, information, and intelligence. This threat assessment may be detailed, or in some cases, there may be numerous unknowns. Commanders and medical personnel must have an awareness of the threat and be proactive with countermeasures to reduce or eliminate it.

4-3. Army Medicine views operational threats from two perspectives: the general threat and the health threat. Although Army Medicine's primary concern is the health threat, the general threat must also be fully considered as it influences the—

- Character, types, and severity of wounds and injuries to which forces may be exposed.
- Enemy's ability and willingness to disrupt AHS support operations and to respect the conditions of the Geneva Conventions regarding the protection of AHS personnel while engaged in a humanitarian mission.

4-4. Threats within an OE consist of enemies, adversaries, and neutrals as well as hybrid threats (force that combines traditional, irregular, disruptive, or catastrophic capabilities). These threats are protracted confrontation among individuals, groups of individuals, paramilitary or military forces, state actors, and nonstate actors increasingly willing to use violence to achieve their political and ideological ends. Urban areas are becoming safe havens and support bases for terrorists, insurgents, criminal organizations, and other threats. There is a probability that in the future Army forces will conduct operations in an urban area in and around megacities. For information on the OE, refer to FM 3-0.

4-5. Commanders and staffs analyze an OE using the eight operational variables: political, military, economic, social, information, infrastructure, physical environment, and time. For more information on the operational variables, refer to FM 6-0.

4-6. The health threat categories faced by deployed U.S. forces are depicted in table 4-1. The health threat is a composite of ongoing or potential enemy actions; adverse environmental, occupational, and geographic and meteorological conditions; endemic and emerging diseases; and CBRN hazards that have the potential to affect the short- or long-term health (including psychological impact) of personnel. For more information on health threats, refer to FM 4-02.

Table 4-1. Health threat categories

Threat category	*Threat type*
Injuries.	Musculoskeletal injuries (primarily from physical training and recreational activities).
Diseases.	Endemic, emerging, epidemic, and pandemic. Foodborne. Fomites. Waterborne. Arthropod-borne. Zoonotic. Breeding grounds for vectors.
Occupational and environmental health hazards.	Climatic (heat, cold, humidity, and significant elevations above sea level). Toxic industrial materials. Accidental or deliberate dispersion of chemical, biological, and radiological material. Disruption of sanitation services or facilities (such as sewage and waste disposal). Effects of industrial operations and industrial and operational noise.
Poisonous or toxic flora and fauna.	Toxic poisonous plants, bacteria, and fungus. Poisonous reptiles, amphibians, arthropods, and animals.
Medical effects of weapons.	Conventional (to include blast and mild traumatic brain injury or concussion). Improvised (to include improvised explosive devices). Chemical, biological, radiological, and nuclear hazards. Directed energy. Weapons of mass destruction. Thermal (from nuclear blast or direct energy). Combined injury (chemical, biological, radiological hazards plus thermal, blast, explosive, or projectiles).
Physiologic and psychological stressors.	Continuous operations. Combat and operational stress reactions. Wear of mission-oriented protective posture ensemble. Stability tasks. Home front issues.

4-7. The elements of the health threat are not limited to the areas described in table 4-1 and include the level of compliance with the law of war and the Geneva Conventions requirements regarding respect and protection of medical personnel, medical facilities, and transportation means. For additional information on the health threat and medical intelligence, refer to ATP 4-02.42 and ATP 4-02.55.

HEALTH THREAT ASSESSMENT

4-8. A critical element of the AHS assessment is a thorough appraisal of the health threat. This assessment includes the health threat to the deploying forces and to the residents in the AO. The U.S. Soldier is placed at increased risk in stability operations and support operations scenarios as the incidence and exposure to infectious diseases and environmental hazards are greater in man-made or natural disaster areas and in developing nations. The health threat is derived through established intelligence channels and from a variety of informational sources outside of the military.

4-9. The ability to obtain, interpret, and use medical intelligence is critical to the success of the AHS mission. Regardless of whether the operation is conducted within the United States or abroad, man-made and natural disasters can cause a resurgence of diseases once thought to be at low epidemiological levels. This may result in environmental contamination. A combination of factors can result in the spread of communicable diseases in epidemic proportions and an increased opportunity for exposure to CBRN hazards. These factors are the—

- Disruption of sanitation services (such as garbage disposal or sewer systems).
- Contamination of food and water.
- Development of new breeding grounds (such as in rubble or in stagnant pools of water) for rodents and arthropods.
- Disruption of industrial operations.
- Dispersion of biological or radiological waste by improper handling or terrorist activity.

4-10. To develop the AHS support estimate and support plan (appendix A), the AHS support planner obtains updated medical intelligence through intelligence and other channels. Health threat information in AOs within the United States can be obtained from the—

- American Public Health Association.
- Centers for Disease Control and Prevention.
- Defense Health Agency, Public Health.
- Local public health officials.
- United States Army Medical centers and activities within the immediate area.
- United States Army Medical Command.
- United States Army Special Operations Command.
- United States Civil Affairs and Psychological Operations Command.
- World Health Organization.

4-11. The special training of PVNTMED personnel, as well as other medical professionals, is used to provide a clear assessment of the health threat. Preventive medicine personnel are specifically trained and equipped to collect, analyze, and interpret health information. When the assessment includes oral, dental, or maxillofacial considerations, dental public health officers have similar specialized training in the field of dentistry. The veterinary officer can provide expertise in the public health ramifications of zoonotic diseases and biological and chemical hazards. These personnel can make recommendations for types of activities to be accomplished and their priority for support making efficient use of limited AHS resources. For consultation purposes during the assessment, the medical personnel conducting the assessment must have access to all medical professionals within the AHS force and the local medical community.

4-12. Army Health System support planners must acquaint themselves with currently existing intelligence products which support U.S. military operations conducted outside the continental United States. These reports can be obtained through operational and intelligence channels (such as the MEDBDE [SPT] S-2 or the corps surgeon's office). Medical intelligence assessments on disease threats, environmental and industrial health hazards, and foreign military and civilian health care capabilities can be obtained from National Center for Medical Intelligence through intelligence channels.

4-13. As AHS support plans and operations progress, the requirements for additional medical intelligence will occur. All such requirements should be requested through intelligence channels as soon as the medical intelligence is validated, and when required, coordination should be affected with local agencies.

4-14. For operations outside the continental United States, the AHS support planner must be aware of the health threat posed by disaster (such as continued flooding, earthquakes and aftershocks, or further explosions) and groups, factions, opponents, terrorists, or enemy forces operating within the AO. This threat includes the capabilities and potential use of weapons systems and munitions, such as CBRN, directed energy weapons or devices, conventional armaments and the potential for terrorist attacks or incidents, including the use of chemical and biological agents with asymmetric delivery systems. Army Health System support planning and force survivability necessitates that AHS units remain abreast of the complete intelligence picture.

4-15. The health threat includes the stress threat. The stress threat encompasses all stressors in the environment likely to threaten the mission and the Soldier's current and future well-being. The stress threat can result in—

- Misconduct stress behaviors.
- Posttraumatic stress disorder.
- Combat and operational stress reaction.
- Neuropsychiatric disorders including organic mental disorders.

4-16. For additional information on infectious diseases and their prevalence, refer to TM 4-02.33. For additional information on the health threat and the medical aspects of intelligence preparation of the battlefield, refer to FM 4-02 and ATP 4-02.55.

FORCE PROJECTION

4-17. Force projection encompasses a range of processes including mobilization, deployment, employment, sustainment, and redeployment. These processes have overlapping timelines that are repeated continuously throughout an operation. Each force projection activity influences the other. Deployment, employment, and sustainment are inextricably linked, so one cannot be planned successfully without the others. The operating tempo reflect the ability of the deployment pipeline to deliver combat power where and when the joint force commander requires it. A disruption in the deployment process will inevitably affect employment. Force projection operations are inherently joint and require detailed planning and synchronization. Decisions made early in the process directly affect the success of the operation. For detailed information on the force projection process, refer to AR 525-93 and ATP 3-35.

4-18. The first rule of anticipation for the unit's staff in a force projection posture is to be prepared for deployment. If the unit has been assigned a region of focus in peacetime, planning should occur long before alert and deployment. Appropriate actions include ordering and posting maps, studying available infrastructures, familiarizing Soldiers with the predominant language, training Soldiers for deployment, and sensitizing Soldiers to AO cultures. Continuous force tracking, total asset visibility during deployment, and continuous intelligence preparation of the battlefield of the contingency area are key to successful force projection operations.

4-19. Many of the unit missions assigned to support U.S. Army forces will be received as short notice deployments. The advance preparation time will be limited. Due to the sensitivity of the operations security level of the operation, the number of individuals engaged in the planning process may also be restricted. It is, therefore, necessary for the unit commander to ensure the unit is administratively ready for a short-notice deployment. For definitive information on short-notice deployments for stability operations and support operations, refer to FM 3-0 and ATP 4-02.42.

DEPLOYMENT AND ENTRY OPERATIONS

4-20. In an ideal situation, secure bases are available in the AO for continuous support to the deploying force through reception, staging, onward movement, and integration. Other situations, because of the risk factors, will require that an intermediate staging base be located in the TO and outside the combat zone and AO. If established, the intermediate staging base may serve as the theater reception and staging facility into the TO. Medical battalions, medical companies, and subordinate unit commanders must have the means for maintaining C2 when they have arrived at the intermediate staging base. All essential equipment and material

for C2 should be transported with personnel. After debarkation from strategic lift, these units reassemble and prepare for onward movement.

4-21. Upon arrival at the intermediate staging base, the primary mission of the unit is to receive its equipment and supplies and achieve operational readiness as quickly as possible. Onward movement from the intermediate staging base to the combat zone may be multimodal and require some level of reassembly in the AO. Strategic and theater transportation assets employed in onward movement will normally include trucks, rail, sea, and airlift. These movements are a part of deployment and should be included in the time-phased force deployment data.

4-22. The higher headquarters element assists the units with their initial entry into the theater and AO. As part of the initial orientation, the unit is briefed on current operating policies and procedures. In addition, the unit is provided all OPORDs, fragmentary orders, and warning orders with information pertaining to—

- Force protection.
- Security requirements.
- Current threat update to include the health threat.
- Force health protection requirements.
- Mission update.
- Personnel restrictions.
- Rules of engagement.
- Emergency warning signals.
- Army Health System support issues.
- Hospitalization support.
- Supply procedures.
- Blood and blood products support.
- Medications and pharmaceutical support.
- Available support (including host nation).
- Vehicle and unit movement requirements.
- Local laws and customs.
- Personnel replacements.
- Religious support.
- Uniform requirements.
- Finance support.
- Personnel support.
- Morale support.
- Supported and supporting units.
- Status-of-forces agreements.

REAR OPERATIONS

4-23. Rear operations are conducted to assure freedom of maneuver and the continuity of operations, including sustainment, clear C2 arrangements, and dedicated fire support. The division and corps must synchronize the rear operations functions of terrain management, security, sustainment, and movements with the corps' close and deep operations in keeping with the corps commander's concept and intent.

4-24. Officers on duty or detailed to the Army Medical Department will not normally assume command of troops other than those of the Service, staff, or bureaus where they are on duty. Exceptions must be directed by proper authority. Officers of the Army Medical Department may exercise command within the Army Medical Department according to AR 40-1. As an exception, officers of the Medical Service Corps may command troops not part of the Army Medical Department when authorized by the Secretary of the Army, commanders of Army commands, Army service component command, direct reporting units, Army groups, armies, corps, divisions, or comparable units; chiefs of the military services; or heads of other DA staff agencies.

4-25. Rear area operations include security operations to ensure sustainment is not interrupted. Three levels of responses to threat activities serve as guides for planning rear operations. Rather than focusing on the size or the type of threat, the three levels focus on the nature of friendly actions needed to defeat the threat:

- Level I threats can be defeated by base camp or base cluster security forces.
- Level II threats are beyond base camp or base cluster security forces but can be defeated by a dedicated response force in addition to base camp and base cluster security forces. A response force may be a military police or combat arms platoon.
- Level III threats are beyond the capability of base camp, base cluster, and response forces and can only be defeated by a tactical combat force. An infantry, Stryker, or a combined arms battalion (CAB) may be designated as the tactical combat force.

4-26. Continuous reconnaissance and timely intelligence-collection and dissemination are essential for successful rear operations. Based on intelligence preparation of the battlefield and counterintelligence risk assessments, rear operations planning must include—

- Base and base cluster self-defense.
- A response to defeat Level II attacks that exceed base and base defense cluster capabilities.
- The commitment of a tactical combat force to defeat a Level III threat.

4-27. Rear area operations include planning and directing sustainment. Synchronizing these actions with the concept of operations is critical to the success of close and deep operations. Rear operations ensure sustainment is not degraded by and does not limit the force commander's freedom of maneuver and continuity of operations. For definitive information on rear operations, refer to FM 3-94.

4-28. Movement control includes the planning, preparation, execution, and assessment of movement plans, both internal and external (other U.S. forces and host nation) to a unit. The G-3 and S-3 staffs are responsible, overall, for directing the movement of tactical units through or within AOs. Rear CPs are generally responsible for administrative moves and for prioritizing and deconfliction of movements within rear areas as well as planning for sustainment of tactical movements within the division rear.

4-29. The commander must give one specific individual, normally the deputy corps commander, the responsibility and authority to control all aspects of corps rear operations. The responsibilities include—

- Command and control of units task-organized for rear operations.
- Coordinating and synchronizing corps rear operations with close and deep operations in keeping with the commander's intent.
- Planning, organizing, directing, and coordinating assigned and attached units to accomplish sustainment, terrain management, movement, and security.

SECTION II – ROLE 2 SUPPORT IN SPECIFIC ENVIRONMENTS

4-30. The basic objectives and principles of providing AHS support do not change; what changes is the environmental considerations. One of the most important factors affecting operational planning is the effects of terrain and weather on the execution of the operation. The analysis of the type of terrain (both natural and man-made) upon which an operation is to be conducted is an essential step in planning for the operation. Terrain that is difficult to traverse, has natural barriers and impediments, and changes with weather conditions can affect how a force is employed and the types of maneuver that can be conducted. For example, terrain and weather can disrupt transportation, reduce visibility, deteriorate equipment, and reduce the shelf life of parts.

4-31. For AHS support operations, the effects of terrain and weather can shape the character, frequency, and severity of injuries to patients. Different terrain features will influence the types and severity of wounds incurred, which determine the medical devices and supplies required to treat injured or wounded Soldiers. Terrain and weather also influence the manner in which MEDEVAC operations can be conducted and the length of time required to evacuate the wounded or injured Soldiers. Terrain and weather can complicate the treatment of disease and injuries by providing conditions that foster the spread of diseases and infections and providing breeding grounds for disease carrying vectors (table 4-2 on page 4-7 through page 4-10). Finally, terrain and weather can affect the operation of medical devices and should be addressed in planning considerations.

Table 4-2. Medical considerations for terrain and weather conditions

Type of terrain	*Weather consideration*	*Medical considerations*	*Medical devices and supplies required*
MOUNTAINOUS. • Rugged. • Difficult to traverse.	• Extreme cold. • Altitude. • Winds.	• Increased number of crush injuries, fractures, and concussive injuries from falls. • Potential for high altitude illnesses (rapid ascent to heights over 7,500 feet). • Potential for dehydration and heat exhaustion. Enforce water discipline. • Aggravation of sickle cell anemia. • Increased sunburn and snow blindness. • Evacuation by rotary-wing ambulance may not be possible. • All patients should be considered as litter patients on rugged terrain. All litters should be dressed for both warmth and padding. • Medical evacuation is labor intensive. Litter teams are required. Establish litter shuttle system to provide litter bearers with required rest. • Manual evacuation is time consuming. Plan for overnight stops on the evacuation route. Plan to erect warming stations.	• Increased splinting and casting materials. • Additional litters, litter straps, hypothermia kits, and blankets. • Lightweight shelter or improvised shelters for warming stations. • Additional ropes, pitons, hammers, or other mountain climbing equipment. • Personal protective equipment (sunscreen and sunglasses).

Table 4-2. Medical considerations for terrain and weather conditions (continued)

Type of terrain	*Weather consideration*	*Medical considerations*	*Medical devices and supplies required*
JUNGLE. • Thick undergrowth. • Swampy. • Difficult to traverse.	• Hot. • Humid. • Disease vectors. • Poisonous or toxic flora and fauna.	• In swampy areas, all patients should be considered litter patients. • Increased immersion injuries and other dermatological conditions (skin rashes). • The hoist with jungle penetrator may be required for evacuation by rotary-wing ambulance. • Field hygiene and sanitation difficult to maintain. • Increased gastrointestinal disease. • Increased chemoprophylaxis. • Increased stings and bites. • Increased food-, water-, and vector-borne diseases. • Increased disease and nonbattle injury rates. • Increased combat and operational stress reactions.	• Increased requirement for litters. • Hoist with jungle penetrator. • Increased requirement for potable water. • Chemoprophylaxis, as indicated. • Increased requirement for the use of bed nets, insect repellent, hot weather clothing, sunscreen, and sunglasses. • Increased requirement to ensure perishable and dated medical supplies are stored properly. If medical supplies are improperly stored (such as without refrigeration), they will degrade quickly.

Table 4-2. Medical considerations for terrain and weather conditions (continued)

Type of terrain	*Weather consideration*	*Medical considerations*	*Medical devices and supplies required*
URBAN. • Above, at, and below ground level. • Rubble and debris. • Isolating effect.	• All weather conditions. • Breakdown or disruption of sanitation.	• Increased number of crush injuries, fractures, and concussive injuries from falls and explosions within confined spaces. • Evacuation by air ambulance may not be possible. • Increased use of improvised litters; casualty evacuation platforms; and buildings of opportunity for Role 1 medical treatment facility and Role 2 medical treatment facilities. • Isolating effects of rubble and damaged buildings may make locating and acquiring patients more difficult. • Potential for dehydration. Enforce water discipline. • Field hygiene and sanitation difficult to maintain. Increased gastrointestinal disease. • Disruption of sanitation and rubbish effects may increase vector breeding grounds. • Increased risk of exposure to unintentional release of toxic industrial materials (such as, combat damage to gas stations, industrial complexes, or laboratory facilities). Toxic and noxious chemical gases may be heavier than air and settle in low-lying areas (such as basements).	• Axes, crowbars, and other tools may be required to break through barriers. • When air ambulance evacuation is possible, the hoist may be required to remove patients from the tops of buildings. • Special harnesses; portable block and tackle equipment; grappling hooks; collapsible ladders; heavy gloves; and casualty blankets for shielding. This equipment is used to lower casualties from buildings or move them from one structure to another. • Equipment for the safe and quick retrieval from craters, basements, sewers, and subways. Casualties may have to be extracted from under rubble and debris. • Increased requirement for intravenous fluids.

Table 4-2. Medical considerations for terrain and weather conditions (continued)

Type of terrain	*Weather consideration*	*Medical considerations*	*Medical devices and supplies required*
EXTREME COLD WEATHER.	• Extremely cold temperatures (below -40° Celsius [-40° Fahrenheit]). • Gale force winds. • Blowing snow.	• Exposure to extremely cold temperatures and wind make exposure unsurvivable. • Loss of depth perception in total white out conditions. • Increased disease and nonbattle injuries to include— ▪ Cold injuries (ranging from minor to severe frostbite, especially of exposed areas of the body and feet, to hypothermia). ▪ Dehydration and heat exhaustion. ▪ Increased combat and operational stress reactions. • Patients must be kept warm as effects of the extreme cold can hasten or deepen shock. • Blood and intravenous fluids must be kept from freezing while in use. • Ambulance exchange points are established when evacuation times or distances are lengthy. • Augmentation of evacuation platforms and the use of casualty evacuation platforms may be required.	• Increased use of shelters to keep patients warm. • Increased use of blankets to dress litters and hypothermia kits to keep patients warm. • Augmentation of ambulances may be required. • Increased potable water supplies may be carried on ambulance platforms. • Increased requirement to ensure perishable and dated medical supplies are stored properly and kept from freezing.

4-32. Terrain and weather can complicate the treatment of disease and injuries by providing conditions that foster the spread of diseases and infections and providing breeding grounds for disease carrying vectors (see table 4-2). Finally, terrain and weather can affect the operation of medical devices and should be addressed in planning considerations. For example, in a sandy environment, radiology and laboratory equipment are susceptible to particulate ingestion issues. Personnel must address dust particulate ingestion by identifying mitigating measures during planning and ensuring those measures are executed during operations. Many medical companies have lost capability due to a lack of planning for terrain and weather considerations.

4-33. In stability operations and support operations, medical units may be deployed into a given geographical area prior to or after the deployment of combat and sustainment forces. During humanitarian assistance and disaster relief operations, the perceived threat may be low, but the commander must ensure the security measures are adequate for the appropriate threat level. Further, the commander must have the capability to increase these protective measures should the operational scenario change and mission creep occur. If the political, social, or economic status of the host nation or region deteriorates, an increase in the potential for terrorist activity may also be experienced. The AHS commander must continuously evaluate the potential for terrorist activity and adjust the force protection plan accordingly.

ROLE 2 SUPPORT IN ARCTIC ENVIRONMENT

4-34. The Arctic poses two challenges—as a place and an environment. It serves as a place where the Army, as part of the joint force, confronts our adversaries around the globe in competition. This requires us to adapt our posture to employ calibrated forces able to conduct LSCO in a multidomain environment. As an environment, it poses additional challenge from extreme temperature and terrain. Soldiers conducting operations in cold weather environments encounter dynamic challenges, which if not appropriately addressed may result in unnecessary casualties. Individuals must understand the effects of the environment and have the training, stamina, and willpower to operate at extreme temperatures down to -53° Celsius (-65° Fahrenheit) for multiple days at a time. The effectiveness of some equipment is greatly reduced, and maintenance of all equipment is of paramount importance. All means of transportation must be used. In addition to concern for the effects of the environment on the Role 2, extra care and precautions must be taken for the management of patients in this environment with the utilization of GTA 20-01-001.

4-35. Health care providers, allied medical, and unit commanders and leaders should develop a prevention program to protect Soldiers from adverse health effects of cold stress. Leaders must understand the physiologic responses and adaptations to cold. Numerous cold and altitude illnesses and injuries threaten personnel operating in a mountainous or cold weather environment. In a cold, mountainous environment, personal hygiene is difficult to maintain due to limited water. The potential for the spread of infectious diseases increases due to multiple individuals sharing confined living spaces. Field hygiene and sanitation is important. Personnel use sunscreen and sunglasses to prevent severe sunburns and damage to the eyes from the sun's ultraviolet rays, which are possible at high altitude or in snow-covered environments.

4-36. Unit plans must be prepared and rehearsed to manage cold stressors. All personnel will be required to have knowledge of the guiding principles for and the proper application of personal protective equipment for survivability purposes. Health care providers must understand the diagnosis and treatment of nonfreezing and freezing cold injuries and other medical conditions associated with extreme cold and to ensure they can develop a knowledge base among each other to recognize signs, symptoms, and possible treatment of these injuries at all roles of care. Reporting requirements must be identified in the unit tactical SOP to provide background information for reporting injuries and data collection of epidemiological information to note trends and to identify individual, work, and environmental factors that are not adequately controlled by preventive measures and policies.

4-37. Since the transportation of heavy tentage may be impractical, shelter for patients must be improvised to prevent undue exposure of the wounded. In the summer or in warm climates, improvisation may not be necessary, but since there is a close relationship between extreme cold and shock, medical personnel should always be conscious of the necessity of providing adequate shelter for patients. Satisfactory shelter may be found in caves, under overhanging cliffs, behind clumps of thick bushes, near the base of trees, or in ruins. Shelter may be built using a few saplings, evergreen boughs, some canvas material, or similar items. The time factor will often influence the type of shelter used. When patients are to be kept overnight, a better-weatherproofed shelter should be constructed.

4-38. In cold weather and in high mountains, speed of evacuation is vital, as there is a marked increase in the possibility of shock among patients when injuries occur in extreme cold. High mountains are difficult to evacuate from due to lack of road networks and altitude.

4-39. Unit leaders and the MEDLOG personnel should anticipate higher consumption rates for medical supplies, such as lip balm, sunscreen, cough syrup, decongestants, and hypothermia management kits. When building the authorized stockage list, solid medications, and freeze-dried material instead of liquids should be used to minimize freezing, storing, and handling problems. Climate controlled areas, such as warming tents, vehicles, and containers, are required for storing liquid medications, and blood products. Perishable materials must be packaged and marked for special handling. Procedures must be established and followed for special handling requirements for Class VIII material from embarkation to its destination. For additional information on the storage of Class VIII items, refer to ATP 4-02.1 and TC 8-270.

4-40. When operating in northern latitudes, a Role 2 should establish a relatively short patient holding period. The adverse environmental conditions of the northern environment under which the Role 2 personnel function makes it exceedingly difficult to provide extensive definitive care over an extended period.

4-41. The general nature of the cold weather terrain makes surface evacuation of patients difficult in winter and virtually impossible in summer. The frozen tundra and permafrost form an exceedingly rough roadbed that makes patient evacuation slow. In summer, the tundra becomes marshy, streams vary from mere trickles to large torrents, and operation of ambulances off the existing road network is often impossible. The lack of adequate road networks and the military necessity of moving supplies over the same route greatly restrict patient evacuation and increase reliance on air assets available for patient movement.

4-42. Ambulances are required for movement of patients from the Role 1 through Role 3 to airfields and for MEDEVAC when weather conditions do not permit air evacuation. Helicopters are the most practical and should be the primary means to support the Role 1; however, the Role 2 should be prepared to execute ground MEDEVAC operations. Aircraft resupplying the maneuver force can be used to execute CASEVAC on the return trip.

4-43. In cold weather or adverse environments, windows to conduct MEDEVAC operations are limited. It is critical that the opportunity be taken to execute CASEVAC at every available opportunity. Every supply platform, even a snowmobile with a sled, that arrives with supplies should not leave empty. The supply platform should leave full of casualties and execute CASEVAC.

4-44. To enhance AHS support in extremely cold weather, the following considerations apply:

- Prompt acquisition and evacuation of patients to heated treatment stations.
- Augmentation of collecting elements of both unit and EAB division-level medical units.
- Use of enclosed and adequately heated transportation for evacuation.
- Provision of heated shelters at frequent intervals along the route of evacuation.
- Readily available air transportation for patient evacuation.
- Special snow traversing type vehicles for patient evacuation.
- Heated storage of medical supplies.
- Special handling requirements for Class VIII pharmaceuticals from embarkation to their destination.

4-45. If Role 1 personnel are not readily available, other personnel must arrange for prompt evacuation of patients. In the muddy seasons, it is necessary to place Role 1 MTF well forward in the combat area to prevent unnecessary losses due to time delay in evacuation. In summer, the evacuation and care of wounded is hampered by poor road conditions, dust, and insects.

4-46. The Role 2 may need to reinforce or augment the Role 1 MTF with additional treatment or evacuation personnel. Medical company leaders should consider equipping this element with radios that will be on the same net as the Role 1 and provide equivalent MEDEVAC vehicles to furnish similar mobility as provided by the Role 1. The Role 2 should utilize liners in tentage unless better housing is available. Flooring is considered mandatory. Water trailers should be kept in heated areas or provided with heater units to prevent freezing.

4-47. A Role 3 or other EAB medical units may reinforce or augment the Role 2. The size of a maneuver force will dictate the bed requirements and the type of unit best suited for the assignment.

4-48. Leadership is extremely demanding and important in hostile environments. Emphasis is on small-unit operations. To ensure maximum flexibility for leaders at all levels, unit commanders should be resourceful, innovative, and exercise decentralized command. Forceful action is the key to success in an arctic environment. Medical leaders at all roles of care must plan and prepare their operations in detail, actively supervise, keep themselves and their subordinates informed, and maintain close coordination with adjacent and supporting units. For more information on mountain warfare and cold weather operations, refer to ATP 3-21.50, ATP 3-90.97, TB MED 505, TB MED 508, and TC 3-97.61.

ROLE 2 SUPPORT IN DESERT ENVIRONMENT

4-49. Deserts are arid, barren regions of earth incapable of supporting life due to lack of water. Temperatures vary from extreme highs down to freezing lows where visibility may change from 48 kilometers (30 miles) to 9 meters (30 feet) in a matter of minutes. Temperatures vary according to latitude and season, from over 57° Celsius (136° Fahrenheit) in the deserts of Mexico and Libya to the -40° Celsius (-40° Fahrenheit) in the

Gobi (East Asia). In some deserts, day-to-night temperature fluctuation exceeds 21° Celsius (70° Fahrenheit). There are three types of desert terrain: mountain, rocky plateau, and sandy or dune. Desert terrain also varies considerably from place to place with the sole common denominator being lack of water with its consequential environmental effects, such as sparse, if any, vegetation. The basic landforms are like those in other parts of the world, but the topsoil has been eroded due to a combination of lack of water, heat, and wind giving deserts their characteristic barren appearance. The bedrock may be covered by a flat layer of sand or gravel, or it may have been exposed by erosion. Other common features are sand dunes, escarpments, wadi, and depressions.

4-50. Successful desert operations require adaptation to the environment and to the limitations its terrain and climate impose. Equipment and tactics must be modified and adapted to a dusty and rugged landscape. It is important to realize deserts are affected by seasons. Those in the southern hemisphere have summer between 21 December and 21 March. This six-month difference from the United States is important when considering equipping and training Soldiers who are not acclimated for desert operations south of the equator.

4-51. Additionally, roads and trails are scarce, and they usually connect villages and oasis. Tracked vehicles and most wheeled vehicles can generally travel in any direction over much of the desert and need not be confined to established roads and trails because much of the desert area is flat and hard surfaced, carpeted with only 2 or 3 centimeters (0.75 to 1.1 inches) of sand. Other complications are the shortages of water coupled with the increased demand created by very high temperatures and low humidity and the increased effort required to combat the effect of sand, dust, and heat on personnel and equipment.

4-52. The burden on medical resources increases due to the intensity and lethality of offensive operations in the desert and the increased distances over which units require support as a force advances. Medical units must anticipate large numbers of casualties over a large geographic area. Units should plan and rehearse nonstandard CASEVAC procedures.

4-53. The vast distances, increased lethality, and rapid pace of desert operations can burden medical resources and complicate patient treatment and evacuation procedures. The potential for large numbers of patients increases as formations maneuver across wide areas and exchange indirect fire without natural cover and concealment to protect forces. These MASCAL situations can exceed the capabilities of organic and DS medical assets without careful planning and coordination. Medical resources can mitigate these burdens by forward echeloning medical resources by the Role 2—

- Attaching treatment teams with Role 1 MTFs.
- Attaching evacuation sections with Role 1 MTFs.
- Configuring for rapid placement and displacement of the MTF.
- Requesting and receiving EAB medical resources.

4-54. Casualty evacuation must occur concurrently with operations. Units that cease aggressive maneuver to evacuate casualties while in enemy contact often suffer additional casualties. Because of the greater distances involved and the high mobility of the maneuver elements, it will be necessary to augment the MEDEVAC capability with additional CASEVAC vehicles and personnel. Furthermore, augmentation by medical air ambulances is highly desirable.

4-55. Medical unit requirements for desert operations are essentially the same as for temperate climates. It is essential that each brigade have an environmental sanitation team attached. When planning for medical support the following factors should be considered:

- Identify external sources of medical support and augmentation, such as MEDEVAC support, FRSDs, Role 3 hospitals, and Class VIII resupply procedures.
- Develop procedures for rapidly triaging and evacuating patients to the appropriate role of care.
- Conduct route reconnaissance to ensure medical personnel know the routes between units and echelons.
- Dispersion and large areas over which battles are fought increases vehicle evacuation time. This problem can be further complicated if the enemy does not recognize the protection of the Red Cross, thereby inhibiting MEDEVAC within the range of enemy air defense weapons.
- Trained CLSs are critical to the reduction of the number of deaths due to slow evacuation times.

- Long distances between units may limit the availability of combat medics to adequately support combat troops. Reinforcements may be required from the Role 2 or from supporting EAB medical units. Augmentation should include vehicles as well as personnel.
- Illness from heat injuries and diseases is higher than in temperate climates. Fevers, diarrhea, and vomiting, for example, cause loss of water and salt, which can culminate in heat illnesses. Cold weather injuries can also occur during a desert winter.
- The mobility required of maneuver units will be inhibited if movement of any part of these units, including trains, is restricted by having to hold several patients; therefore, the wounded and sick must be evacuated immediately.

4-56. Medical personnel must assist tactical commanders in preventing or reducing heat casualties within their units. The Role 2 should be provided additional supplies of water to prevent, treat, and reduce the number of heat casualties. When units do not have AE available, commanders mitigate the excessive ground evacuation times by augmenting and distributing adequate combat medics throughout their formation and ensuring combat medics and Soldiers have been given additional training on how to provide TCCC at the point of injury prior to desert operations.

4-57. The medical company and EAB medical assets in support of the division should be augmented with a FRSD and ambulances from EAB medical units. In an emergency, empty cargo vehicles moving to the rear should be prepared to conduct CASEVAC.

4-58. Medical evacuation from the Role 1 MTF to the AXP or Role 2 will be performed by ground or air transportation. The availability of equipment, METT-TC (I), and the patient's condition should be considered in determining the method of transportation used to evacuate.

4-59. Medical training, including medical training for nonmedical personnel, is very important. Medical leaders can provide valuable information on the medical implications of operations in a desert environment. Disease and nonbattle injury patients, due to a lack of consideration of the health threat, can far outnumber combat patients. The medical leadership advise the commander on measures to take to ensure training includes personnel protective measures essential to keeping DNBI to a minimum. Burn casualties should be a medical training consideration as these will be the most likely casualties in an armored or mechanized environment. Proper hydration should also be a training consideration.

4-60. Prevention, which enhances the combat effectiveness of a command, requires constant supervision by responsible personnel. Commanders are responsible for proper sanitation and the enforcement of sanitary regulations within the boundaries of their organizations. The medical platoon leader team is responsible for making recommendations for the preservation of the health of the command and for the correction of unsanitary conditions.

4-61. The desert has extreme daily temperature ranges in all seasons; commanders must give careful attention to the protection of their Soldiers. The nights are cold, and heavy clothing and blankets may be needed, especially in winter when night temperatures often drop below freezing. Commanders must guard against the temptation for troops to throw away warm clothing during hot daytime hours and should, whenever possible, conduct operations during the night, or early or late daylight hours to avoid heat casualties.

4-62. Evacuating patients by ground across extended lines of communication consumes valuable time and resources. When possible, planners establish HLZs forward to facilitate MEDEVAC or CASEVAC of casualties and limit the burden on maneuver units. This enables freedom of action and supports the tempo and pace inherent to successful desert operations. It also prevents congesting lines of communication with excessive two-way traffic and allows them to primarily be used to push heavy logistics packages forward that units could not move by air. When units do not have AE available, commanders mitigate the excessive ground evacuation times by augmenting and distributing adequate medics throughout their formation and ensuring medics and Soldiers have been given additional training on how to provide TCCC at the point on injury prior to desert operations.

4-63. The large area over which a battle is fought and the possibility of medical units at all roles of care being located farther to the rear presents special problems in the evacuation and treatment of patients. Any number of patients in a highly mobile unit restricts the action of that unit and may endanger it. Air evacuation

by fixed-wing aircraft and helicopters is particularly valuable because of speed and the reduction of the load on ground vehicles.

4-64. Effectively managing large numbers of patients requires clearly understood SOPs, rehearsals, adequate resources, rapid triage, and detailed patient tracking procedures. When developing the unit's HSS plan, medical planners—

- Identify external sources of medical support and augmentation, such as MEDEVAC support, FRSDs, Role 3 MTFs, and Class VIII resupply procedures.
- Designate AXPs and HLZs to support evacuation.
- Develop procedures for rapidly triaging and evacuating patients to the appropriate role of care.

4-65. Proper operational public health and sanitation measures, adequate personal hygiene, avoidance of native villages, and constant command supervision will reduce the incidence of disease and disability. Practically every disease of known military significance may be found in the desert among its human inhabitants, animals, insects, and locally available water and food supplies. Many of the communicable diseases will be prevalent among the native population. Insect borne diseases, such as malaria, sandfly fever, leishmaniosis, typhus, and plague, may be found.

4-66. The cold of the desert night, even in summer, may require warm clothing, and actual cold injury may occur during the desert winter. It is the desert sunshine, wind, and heat, however, which have the greatest effect upon military operations. The dryness of desert heat distinguishes it from the heat of the tropics and adds to the problem of coping with it.

4-67. In desert operations, the intense sunlight and wind-driven sand can damage the eyes and skin. Soldiers may be protected from the intense sunlight and wind-driven sand by tinted goggles; however, these will not completely protect tank or vehicle drivers and others constantly exposed to the sun and wind from damage to their eyes. Closed, tight-fitting goggles are required to prevent eye damage from dust. Blackening the area around the eyes reduces the effect of glare and improves distance vision and adaption to night vision goggles. The desert wind dries exposed skin surfaces and causes chapping of the lips and other local skin irritation of a disabling nature. In this environment, cuts and scratches become infected very easily. Lip balm and protective ointments will provide Soldiers with some protection against these conditions. Severe sunburn may result from short periods of exposure to the desert sun; therefore, Soldiers must protect themselves from direct rays of the sun.

4-68. Disease and illness in desert environments can cause more than the usual amounts of disability because of the added effects of dehydration. Fever that accompanies infections causes an increased loss of water, while diarrhea and vomiting cause the loss of both water and salts (electrolytes) from the body.

4-69. Preventive medicine personnel must ensure all Soldier are aware that all water received from unapproved water sources should be considered contaminated and unfit for drinking, bathing, or the washing of clothing. Natural water, when it is drunk, will transmit diseases such as dysentery, typhoid fever, and infectious hepatitis. Parasitic diseases, such as schistosomiasis (snail fever) and leptospirosis, may be acquired by wading, swimming, bathing, or washing clothes in irrigation ditches or other bodies of water. Chemical contaminants in water may cause skin irritation or dermatitis.

4-70. Soldiers must be trained to drink adequate amounts of water, to drink from only approved water sources, to conserve water that is used for non-drinking purposes, and to not pollute or contaminate available water sources. Even after acclimatization, Soldiers cannot condition their bodies to require less water than is lost by sweating. Adherence to work-rest cycles and water consumption recommendations should be followed. Any restriction of water below the amount needed for efficient cooling of the body will result in rapid loss of efficiency, reduction in work ability, and deterioration of morale. Water restriction continued for several hours can result in heat injuries.

4-71. Intestinal diseases tend to increase among personnel living in the desert. This may be prevented by training and inspections by PVNTMED personnel and field sanitation teams that ensure proper food service sanitation, proper cleaning of eating and cooking utensils, adequate supervision of food handlers, proper disposal of garbage and human waste, and protection of foods and utensils from the swarms of flies. Germicidal rinses should be used for washing food service and kitchen gear when water is scarce or cannot be heated because of the enemy situation.

4-72. Field sanitization teams manage the disposal of waste items. Solid waste (except regulated medical waste and HW) may be burned as the situation permits. Soakage pits should be used to dispose of liquid wastes and should be filled with soil when leaving an area. Trench type latrines should be used if the soil is suitable. Shallow latrines become exposed in areas of shifting sands.

4-73. Commanders must ensure field sanitation teams establish procedures to control insects and rodents to prevent the diseases they carry. Personnel protective measures used to control insects and rodents include—

- Protective clothing.
- Clothing impregnating.
- Insect repellents.
- Residual and space sprays.
- Immunizations.
- Suppressive drugs.

4-74. Commanders must ensure the proper standards of personal hygiene are maintained. All personnel must stress the importance of foot hygiene by conducting daily washing of feet, changing of socks, and use of foot powder. Daily shaving and bathing should be required when sufficient water is available. If sufficient water is not available for bathing, troops may clean themselves by sponge baths or by rubbing themselves with a damp or even a dry cloth. When water is not available for laundering, soiled clothing may still be worn if it is changed frequently and dried in the sun and wind. For more information on desert operations, refer to ATP 3-90.99.

ROLE 2 SUPPORT IN JUNGLE ENVIRONMENT

4-75. The jungle environment includes densely forested areas, grasslands, cultivated areas, and swamps. Jungles are classified as primary or secondary jungles based on the terrain and vegetation. The climate in jungles varies with location. Close to the equator, all seasons are nearly alike, with rains throughout the year; farther from the equator, especially in India and Southeast Asia, jungles have distinct wet (monsoon) and dry seasons. The jungle environment has high temperatures averaging 21° to 35° Celsius (70° to 95° Fahrenheit), heavy rainfall as much as 10 meters (32 feet) annually, and high humidity (90 percent) throughout the year.

4-76. Jungle operations presents a difficult problem when evacuating patients. The usual equipment and property prescribed by the TOE for units concerned with evacuation are not always suitable for operation under jungle conditions. For this reason, all types of transportation, whether by water, land, or air, may be used to transport patients to the rear. This principle applies not only to vehicles assigned primarily for this purpose but also to empty supply vehicles returning from forward positions. Evacuation in the jungle would normally be along supply routes, which are generally protected against enemy action.

4-77. Ambulances may not prove practical on jungle trails, in swamps, or on unimproved roads. Tracked and wheeled vehicles, pack animals, rafts, boats, barges, litter bearers, or combinations thereof will be required in the evacuation of patients to augment organic evacuation means.

4-78. The task of carrying a patient to the treatment team may require the traversing of rough terrain. There are a higher proportion of litter cases than ordinarily encountered since even a slightly wounded individual may find it impossible to struggle over rough terrain. As a result, the patient ordinarily classified as walking wounded may require a litter. Evacuation of patients by litter is a slow and exhausting task and usually will require the use of many nonmedical personnel. Host-nation personnel properly supervised by trained medical personnel may be used as litter bearers.

4-79. All available means for collecting and transporting the sick and wounded must be used to do the job satisfactorily. The standard folding litter has some advantages when evacuation involves the crossing of streams, gullies, and steep slopes. Metal basket litters (mountain type) are more practicable under these conditions and can be used to advantage when patients are being moved from jungle areas to ships for evacuation by water. The metal basket litter can be rigged to evacuate patients by pack animal. Improvised litters can also be made from ponchos, shelter halves, fatigue jackets, parachutes, and woven vines on poles. Host-nation litter bearers may prefer to use ordinary canvas sheets with loops for poles. The canvas sheeting is light, and poles may be cut when needed.

4-80. It is easy to overestimate the strength and endurance of litter squads. Well-conditioned personnel, carrying a patient on a litter for 365 to 550 meters (1,197 to 1,804 feet) over jungle terrain, are unable to repeat the performance without an appreciable amount of rest. Medical leaders must keep their commanders informed of the adequacy and efficiency of the evacuation system, and commanders must provide additional personnel when practicable and, at times, rotate personnel from other units of the command. No Soldier should be evacuated who may be treated locally and returned to duty.

4-81. There are other problems encountered in jungle operations. Personal hygiene and sanitation are serious and continuous problems as is the incidence of diseases peculiar to jungle areas. These diseases are transmitted in various ways: mosquitoes, ticks, flies, lice, mites, bats, and water. The incidence of fungal diseases of the skin is especially serious. In addition to maintaining high standards of personal hygiene and military sanitation, strict personnel protective measures per the unit tactical SOP must be always observed.

4-82. The availability of trails, roads, and waterways, the density of natural growth, the season, and general terrain conditions all have a direct influence on medical operations in jungle areas. Supply requirements must be anticipated well in advance of actual needs and careful planning is necessary to conserve the aid station, including work force.

4-83. The way medical units support the tactical units depends on the employment of the supported unit. Wide variations in the amount and type of support may be expected at brigade level and below. The greatest variances will be found in the support of the infantry battalion by the medical platoon and with the support of the medical company.

4-84. The medical company should be prepared to augment the medical platoon supporting units when undertaking jungle operations. This is due to disease-causing humidity and heat, location of tactical units supported, difficulty of crossing terrain with patient loads, and requirement to increase medical platoon personnel attached to the tactical companies being supported and operating relatively independently. Plans to use host-nation litter bearers, when available, should also be established prior to entry into combat.

4-85. Equipment may require modification to permit maximum efficiency in jungle operations. This may include establishment of pack equipment for all medical installations and the replacement of wheeled ambulances with other evacuation means appropriate for use in jungle terrain.

4-86. The Role 1 MTF should be as close as practicable to the troops to make litter evacuations as short as possible. Having the Role 1 MTF as close in proximity to the maneuver forces will lengthen the evacuation route from Role 1 MTFs to Role 2 MTFs and may require the use of the ambulance shuttle system. The use of litter relay points may be necessary to reach an evacuation platform that is able to transit the jungle environment.

4-87. Distances, heat, and high humidity can cause deterioration of certain medical materials and medicines (for example, penicillin, hydrocortisone liquids, and sulfa liquids); therefore, frequent resupply and replacement of these items may be required. Due to jungle wildlife, especially with the prevalence of venomous insects and reptiles, medical planners must thoroughly assess the health threats and add additional Class VIII to their authorized stockage list, for example antivenin. There will also be a priority need for refrigeration equipment to store Class VIII supplies. There will be an increased requirement for antiseptic material because the high heat and humidity increase the incidence of infection in wounds. For more information on jungle operations, refer to ATP 3-90.98.

ROLE 2 SUPPORT IN MARITIME ENVIRONMENT

4-88. In a predominantly maritime environment, all land that can be occupied to attain a physical position of relative advantage by friendly or enemy forces is key terrain. The largely maritime domains challenge planners to account for operational reach and the impact of space and time on reinforcement of existing forward stationed forces and allies. The distance between bases throughout the maritime regions hinders mutually supporting operations, sustainment, and reinforcement from supporting echelons in the theater. Isolation and distance increases vulnerability to amphibious raids by special purpose forces and attacks from long-range aircraft or missiles and also increases the risk of physical isolation by blockade from naval forces. All of these challenges will challenge the AHS support planner’s ability to synchronize the medical functions across the competition continuum.

4-89. Threats to Army forces in a maritime-dominated theater include those in any other type of theater. Additionally, commanders and staff must consider unique joint and enemy courses of action in planning and executing operations in a maritime environment.

4-90. In a maritime environment, it should be expected that operations will be joint. The heavily interdependent nature of joint operations means the defeat of one part of the joint force puts the other parts at significant risk. The failure of Army forces to retain key terrain or protect air and naval bases while preserving their own combat power could result in the loss of air and maritime superiority, which in turn could lead to the ultimate defeat of unsupported Army forces in an entire AOR resulting in previously unseen casualty rates. Army Health System support planners and units require a common operational picture of friendly medical forces and their operations, including those of allies. A *common operational picture* is a display of relevant information within a commander's area of interest tailored to the user's requirements and based on common data and information shared by more than one command (ADP 6-0). An inaccurate COP could become the basis of flawed assumptions and situational understanding that decreases effective decision making.

4-91. As with other environments, planning AHS support in maritime-dominated environments should address relevant aspects that may affect support to friendly forces. Role 2 MTFs positioned at existing bases within the range of adversary long fires should establish primary and alternate survivability positions that will provide for the defense of themselves and their patients. Role 2 personnel may be required to defend themselves and their patients against amphibious assaults and vertical envelopments by enemy forces seeking to control a particular land mass as well. Role 2 MTFs operating on islands with austere infrastructure and resources require significant sustainment during prolonged operations that may delay MEDEVAC. Every opportunity to clear patients from the Role 2 MTF must be taken advantage of to prevent the Role 2 MTF from being inundated with patients in a prolonged care situation.

4-92. Land masses able to accommodate significant military forces in strategically or operationally important areas are scarce in maritime-dominated environments. This scarcity of land may make it more difficult for the Role 2 MTF to maintain proximity to the force they are supporting. Additionally, as described in chapter 3, the Role 2 may not have the space available to set up as they would in another environment. Site layout and selection are critical because the AHS principles and medical functions do not change, but they must adapt to the environment. For example, the Role 2 may still conduct MEDEVAC from the Role 1 MTF with their DS ambulance squad. However, instead of the evacuation going from the Role 1 MTF to a traditional land AXP, the AXP may occur on the beach front with the ambulance offloading patients to a landing craft or AE platform that then moves the patients to a hospital afloat. If AE is used, aviators must become deck certified. Medical regulating and resupply of Class VIII stocks from U.S. Navy requires a more joint perspective. The principles and techniques are the foundation of planning; however, the execution is adapted to the environment.

ROLE 2 SUPPORT IN MOUNTAINOUS ENVIRONMENT

4-93. Soldiers conducting operations in mountainous regions encounter dynamic challenges, which if not appropriately addressed may result in unnecessary casualties. Specialized training and experience are essential. The mobility of all units is restricted, and movement must be carefully planned and executed with the knowledge that distance can be as difficult to overcome as the enemy.

4-94. The maneuver battalion, when operating in mountainous terrain, is often decentralized. In mountain warfare or similar types of operations, it may be necessary for the Role 1 to conduct split operations. The Role 2 should be prepared to reinforce the Role 1 with personnel and equipment. For additional information on AHS support to mountainous and cold weather environments, refer to ATP 4-02.4.

4-95. For small-unit operations with widely dispersed forces, all troops must be well trained in TCCC and CASEVAC procedures, including the following:

- Tier 1 and Tier 2 TCCC skills and field sanitation.
- The use and capabilities of the CASEVAC bag and poleless litter.
- The ability to transmit a 9-line MEDEVAC request and setup of a HLZ.

4-96. Each squad, crew, or equivalent-sized deployable unit will have at least one member certified as a CLS to augment the platoon's combat medic. In addition, MEDEVAC crew chiefs should be CLS trained to assist, if time and the mission allow, during flight operations. Given the distances involved, en route patient care is vital.

4-97. Medical platoon personnel have some unique training requirements for mountain operations. Hoist operations are a planning consideration for medical units operating in mountainous areas. These personnel are trained (ideally, using actual air platforms in rugged terrain) and familiar with high, steep-angle rescue, air CASEVAC, and the equipment used in hoist operations. Mountain operations require evacuation teams, preferably Level 2 mountaineers, who have the capability to reach, stabilize, and evacuate casualties in the steepest terrain. All personnel are trained to conduct less technical, steep-slope evacuations. Elevation illness is unique to mountainous environment, medical personnel should be trained to identify and treat it accordingly.

4-98. For medical units to maintain an adequate level of medical supplies, all personnel, vehicles, and aircraft going toward the forward areas should, whenever possible, carry small amounts of medical supplies and equipment, such as blood substitutes, dressings, blankets, and litters. Equipment and supplies necessary for establishing a treatment team can usually be hand carried. Smaller supplies and equipment may be rolled in blankets, and these rolls can be lashed to packboards or carried in an ahkio sled or partially folded litters. In addition to normal medical items, it is advisable to carry a few shelter halves, hand axes, two or three nylon climbing ropes, and some snap links for each aid station to be established.

4-99. Since the transportation of heavy tentage may be impractical, shelter for patients must be improvised to prevent undue exposure of the wounded. In the summer or in warm climates, improvisation may not be necessary, but since there is a close relationship between extreme cold and shock, medical platoon personnel should always be conscious of the necessity of providing adequate shelter for patients. Satisfactory shelter may be found in caves, under overhanging cliffs, behind clumps of thick bushes, near the base of trees, or in ruins, or shelter may be built using a few saplings, evergreen boughs, some shelter halves, or similar items. The time factor will often have strong influence on the type of shelter used. When patients are to be kept overnight, a better-weatherproofed shelter should be constructed.

4-100. There are special considerations in evacuating patients to the rear. The evacuation of wounded in mountainous operations presents various problems. In addition to the task of carrying a patient to the nearest treatment team, there is the difficulty of movement over rough terrain. The proportion of litter cases to ambulatory cases is increased in mountainous terrain since even a slightly wounded individual may find it difficult to negotiate the rugged terrain. Because of this added exertion and increased pain, it may be necessary to use litters to transport patients who would normally be able to return to the Role 1 MTF by themselves.

4-101. Special consideration must be given to the conservation of work force. Use of litter teams must be kept as short as the tactical situation will permit. A litter team is not capable of carrying a patient over mountainous terrain for the same distance as over relatively flat terrain. To decrease the distance of litter haul, all forward medical units should be as close as possible to the troops supported.

4-102. It is important to be able to predict the number of patients that can be evacuated by available personnel. It has been demonstrated that when the average terrain grade exceeds 20 to 25 degrees the four-person litter team is no longer efficient and should be replaced by a six-person team. The average mountain litter team should be capable of climbing 120 to 150 vertical meters (393 to 492 feet) of average mountain terrain and returning with a patient in approximately one hour.

4-103. Wounded Soldiers should be located and evacuated during the day as much as possible because many would not survive the rigors of the night on a mountain during cold weather. Night evacuation over rough terrain is generally impracticable, and the results are rarely commensurate with the effort. It should be attempted only when the route has been reconnoitered and marked with tracing tape, and a rope handline has been installed. If routes are exposed to enemy observation and fire by day, patients should be removed from the area at hours of darkness. When required, patients should be moved only as far as necessary during the night. At the first point affording shelter from enemy observation and fire, a temporary CCP should be established capable of providing shelter, warmth, food, and supportive care. Casualties should be brought from the forward areas to this point, held until daylight, and then evacuated farther to the rear.

4-104. The difficulties MEDEVAC might encounter in mountain operations emphasize the advantages of the AE of patients. The reduction of time lapse between injury and treatment has such a direct effect on the time required for recovery and the results of the treatment that the use of the most rapid, most comfortable, and the safest means of evacuation is mandatory. Helicopters provide faster, more economical transportation for patients than other methods that might be used; however, it cannot be assumed that helicopters will be readily available for evacuation of patients from forward areas. The fact that aircraft may not be available because of weather, enemy capabilities, terrain features, maintenance problems, or other situations prevents the medical planner from relying entirely on aircraft for the evacuation of patients in rough mountainous terrain. Coupled with the difficulties of MEDEVAC, the planning of AXPs should be adjusted to account for the disparity of terrain. Normal one-third to two-thirds planning distance may not be practical while supporting these types of operations.

4-105. The first and most important task before evacuation can be executed is a thorough reconnaissance of the terrain features and the road network in the area. To this information is added to a consideration of the prevailing climatic conditions, the facilities and personnel available, and the tactical mission. Only after all these factors are assembled and evaluated can a sound MEDEVAC plan be formulated. The following factors peculiar to mountain operations should be given consideration prior to making the final selection of evacuation routes:

- Snow and ice are firmest during the early morning hours.
- Glacial or snow-fed streams are shallowest during the early morning.
- Channels of mountain streams afford poor routes of evacuation because of rough, slippery rocks and the force of the moving water.
- Talus slopes should be avoided because they are difficult to traverse. Loose and slippery rocks on such slopes will often cause litter bearers to fall and drop the patient with possible injury to all.
- When possible, routes should be chosen just below the crest of a ridge since these trails are usually easiest to follow and the ground affords the best footing in such areas.

4-106. Casualties transported by CASEVAC may not be transported to the appropriate role of care to address the patient's medical condition. When possible, CASEVAC vehicles should have a combat medic or CLS on board. On nonmedical aircraft, sufficient space may not be available to permit a caregiver to accompany the casualties, and the type of casualty care provided may be limited. Casualty evacuation is used in extreme emergencies or when the MEDEVAC system is overwhelmed.

4-107. Mountain operations present numerous challenges for casualty collection and evacuation. Leaders consider the following when planning mountain operations:

- Difficulty associated with accessing casualties in rugged terrain.
- Increased need for technical mountaineering skills for CASEVAC.
- Proximity of expert medical help.
- Longer periods of wait time for CASEVAC.
- Prior to evacuation, injured and immobilized patients are at the greatest risk of cold injury, and they must be well insulated during transport.
- Evacuating the wounded from mountainous areas normally requires a larger number of medical platoon personnel and litter bearers than on flat terrain. Experience in the mountains of Afghanistan proved that three to 15 personnel might be involved in carrying one patient.
- Casualty movement should be trained in tough and physically demanding training events.

4-108. Each unit should have a detailed evacuation plan that is repeatedly rehearsed. Each support area must have ground evacuation assets and a dedicated security element. The security element is on call and familiar with primary and alternate routes to higher roles of care. Commanders consider what levels of risk they are prepared to accept to CASEVAC patients using nonmedical aircraft.

ROLE 2 SUPPORT IN SUBTERRANEAN ENVIRONMENT

4-109. There are conditions common to underground facility and subterranean environments that have the potential to increase the number of casualties, the severity of wounds, and the psychological stress and its impact on Soldiers operating in these environments. These conditions include—

- Confined spaces.
- Little or no light.
- Fear of being trapped or buried alive.
- Disoriented in both time and space.

4-110. Health threats common to underground facility and subterranean environments include disease, trauma, and COSR issues. It is important to note that there are no differences in how injuries sustained in subterranean operations and those in any other OE are treated. For more information on subterranean operations, see ATP 3-21.51.

4-111. The physical effects of fighting in confined spaces constructed from concrete, stone, or densely packed earth are of particular concern. The primary physical risk is associated with blast waves from explosives neither absorbed nor attenuated by the environment. The subterranean environment amplifies and directs their wounding effects outward for great distances. Other physical risks from the environment include reduced air quality and concentrated exposure to toxic gases from weapon systems or other sources (natural and man-made). The construction material of the facility (concrete versus dirt) also has the potential to increased wounding effects of small arms to Soldiers through spall and ricocheting small arms projectiles.

4-112. Soldiers can encounter numerous diseases in underground facilities and subterranean environments including—

- Hanta virus.
- Histoplasmosis.
- Rabies.
- Marburg hemorrhagic fever.
- Leptospirosis.
- Tick-borne relapsing fever.
- Other arthropod-borne diseases.

4-113. Traumatic injuries may be encountered in underground facilities and subterranean environments including—

- Asphyxiation.
- Ballistic injuries (bullet wounds or secondary fragment wounds).
- Blast overpressure injuries.
- Crush injuries.
- Dust impaction injury.
- Rodent bites.
- Snake bites.
- Spider bites.
- Traumatic brain injury.

4-114. Blast injuries, especially blast overpressure injuries, present unique challenges to leaders and medical platoon personnel conducting combat operations in underground facilities and subterranean environments. Anytime Soldiers are near an explosion in an underground facility or subterranean environment, personnel must be suspected as having sustained blast overpressure injuries, see table 4-3 on page 4-22.

Table 4-3. Medical considerations for blast injuries

Clinical signs of blast-related abdominal injuries can be initially silent until signs of acute abdomen or sepsis are advanced.
Standard penetrating and blunt trauma to any surface of the body is the most common injury seen among survivors. Primary blast lung and blast abdomen are associated with a high mortality rate. "Blast lung" is the most common fatal injury among initial survivors.
Blast lung presents soon after exposure. Confirmed by finding a "butterfly" pattern on chest X-ray. Prophylactic chest tubes (thoracotomy) are recommended prior to general anesthesia or air transport.
Combat medics may overlook auditory system injuries and concussions.
The symptoms of mild TBI and posttraumatic stress disorder can be identical.
Isolated TM rupture is not a marker of morbidity; however, traumatic amputation of any limb is a marker for multi-system injuries.
Air embolism is common and can present as stroke, myocardial infarction, acute abdomen, blindness, deafness, spinal cord injury, or claudication. Hyperbaric oxygen therapy may be effective in some cases.
Compartment syndrome, rhabdomyolysis, and acute renal failure are associated with structural collapse, prolonged extrication, severe burns, and some poisonings.
Exposure to inhaled toxins and poisonings (for example, CO and CN) released by explosives.
Wounds can be contaminated. Consider delayed primary closure and assess tetanus status.
Close follow-up of wounds, head injuries, and eye, ear, or stress-related complaints.
Combat medics may need to write instructions to communicate with patients due to tinnitus and sudden temporary or permanent deafness
LEGEND CN tear gas TBI traumatic brain injury CO carbon monoxide TM tympanic membrane

4-115. In a subterranean environment, with substantial risks for overpressure injuries, it is crucial to perform traumatic brain injury screenings as quickly as possible. It can often be under recognized given the more obvious severity of other injuries that are likely to be incurred. When exposed to a potentially traumatic brain injury-causing event, it is imperative for Soldiers to be quickly evacuated to an appropriate role of care to minimize brain damage and potentially death.

4-116. Up to 10 percent of all blast survivors have significant eye injuries. These injuries involve perforations from high-velocity projectiles that can occur with minimal initial discomfort and may present days, weeks, or months after the event. Symptoms include eye pain or irritation, foreign body sensation, altered vision, periorbital swelling, or contusions. Findings can include decreased visual acuity, hyphemia, globe perforation, subconjunctival hemorrhage, foreign body, or lid lacerations. Liberal referral for ophthalmologic screening is encouraged.

ROLE 2 SUPPORT IN URBAN ENVIRONMENT

4-117. In urban offense and defense, friendly and threat forces engage at close range with little space to maneuver. Higher casualties occur among troops on the offensive where frontal assaults are often the only tactical option. Defenders with limited ability to withdraw suffer high casualties when isolated and attacked. The potential for high casualties and the subsequent need for CASEVAC under difficult circumstances make the positioning and availability of adequate medical resources an important consideration. Additionally, high intensity urban combat and the potential for increased stress casualties require additional units to allow for adequate unit rotations so Soldiers receive the rest they require.

4-118. Urban terrain provides numerous advantages to the urban defender. Due to this advantage, casualties in urban terrain are more difficult to prevent and more likely than in other types of operations because of the dense complex terrain, the proximity of the urban population, and the difficulty in distinguishing friend from foe. This increased number of casualties may strain AHS assets requiring the Role 2 to augment and reinforce Role 1 medical units and in turn EAB assets to augment and reinforce the Role 2.

4-119. Commanders conducting urban stability operations must know the casualty risk and its correlation to national and strategic objectives. While a lower risk normally exists in stability operations than in offensive

or defensive operations, just one casualty may adversely affect the success of the stability mission. A realistic understanding of the risk and the nature of casualties resulting from urban operations critically affect the decision-making process. If commanders assess the casualty risk as high, they must ensure that their higher headquarters understands their assessment and that the objectives within the urban area are equal to the anticipated risk. For more information on urban operations, see ATP 3-06, ATTP 3-06.11, and TC 90-1.

4-120. Enemy actions and the maneuver of forces complicate forward area medical operations. Health service support considerations for defensive operations in urban terrain are—

- Medical personnel have less time to reach the patient, complete TCCC, and remove the patient from the battle site.
- The enemy's initial attack and the unit's counterattack produce the heaviest patient workload. These are also the most likely times for enemy use of artillery and CBRN weapons.
- The enemy attack can disrupt ground and air routes and delay evacuation of patients to and from treatment elements.
- The depth and dispersion of the defense create significant time and distance problems for evacuation units.
- The enemy may exercise the initiative early in the operation, which could preclude accurate prediction of initial areas of casualty density; therefore, effective integration of air assets into the MEDEVAC plan is essential.

ROLE 2 SUPPORT IN NIGHT ENVIRONMENT

4-121. As in daylight, AHS support operations conducted at night require active participation of all involved units. A SOP must include near and far recognition, signaling, predetermined marking of the CCP, routes, and the Role 2. Maximum use of modern navigation tools, such as global positioning satellite, infrared, and night vision devices, will enhance the ability of medical units and personnel to conduct AHS support of night missions. Night operating procedures must be routine and practiced as a part of operating procedures. This is especially true for medical units and personnel since they have a 24-hour responsibility to provide AHS under all conditions, not just combat operations.

4-122. Night operations call for disciplined and self-reliant troops. The mental strain involved in night combat is severe; it is easier to endure in periods of activity than during long spells of inactivity. Darkness is helpful in achieving surprise, and the attacker will derive additional advantages from the defenders' inability to fire effectively. Therefore, the unit that takes the initiative at night, even more so than by day, has the advantage. However, since orientation and coordination will become increasingly difficult, this initial advantage diminishes as the attack progresses.

4-123. Unit commanders must prepare every detail of the OPLAN with meticulous care to maintain control and intraunit contact and communication during the hours of darkness. Any contingency, however farfetched, must be taken into consideration. Success of a night operation also depends on the resourcefulness and initiative of subordinate leaders and their ability to make independent decisions in line with the plan. Furthermore, since frequent and accurate reporting is of great importance, the existence of a smoothly operating communication system is essential. Success of night operations depends primarily on careful planning, detailed preparation, simplicity of the OPORD and tactical procedure, achievement of surprise, and the leaders' calmness and circumspection. Every officer who is to participate in a night operation must be initiated into the plan. The more thorough the daytime preparations the more certain the success.

4-124. Every possible method of camouflage and concealment should be employed in night operations. Tactical maneuvers and the mechanical handling and servicing of weapons and equipment are slowed down and complicated by darkness. Proper condition and meticulous care of weapons and equipment are essential.

4-125. The medical platoon leader must anticipate that the battalion will do a substantial amount of work at night or in limited visibility. They must ensure the platoon tactical SOP is available and used throughout the battalion for providing treatment and MEDEVAC at night. When Role 2 assets are supporting a Role 1, Role 2 personnel must review the Role 1 medical unit's tactical SOP to ensure they understand how the Role 1 conducts their battle drills.

4-126. Real-life trauma care at night will be enhanced by the ability to use white light (visible light) at the earliest opportunity. Therefore, medical units must establish standard procedures to use white light without compromising the tactical environment. Medical units or elements should routinely train to erect shelters as soon as possible during hours of darkness. Personnel must understand that some shelters block visible light, but the same shelters glow when viewed through night vision devices. In some extremely mobile situations, medical personnel can establish white light conditions by using vehicles to enclose patients and health care providers allowing treatment to proceed.

4-127. Medical leaders must understand night operation technology and how it affects their capabilities for conducting night operations. Medical personnel should know how to use infrared devices (and how their capabilities can enhance AHS support operations at night) such as the combat identification panel. Medical leaders need to know the status and amount of equipment on-hand, identify equipment needed, establish SOPs and METT-TC (I) specific techniques necessary to perform the AHS support mission during night operations. For night operations, the medical leaders should consider—

- Appropriating civilian buildings to reduce light and thermal signatures.
- Maintaining light discipline within occupied shelter or structure.
- Using nonvisible spectrum light in conjunction with night vision devices.
- Reducing noise signature to a minimum.
- Using chemical lights may be applicable. However, overuse of chemical lights degrades light discipline and security. Chemical lights are visible from a kilometer (0.62 mile) or more.

4-128. During night operations medical units can maintain light and noise discipline by—

- Using chemical lights to light CP areas.
- Eliminate generator noise and thermal signature.
- Allowing placement of color chemical lights on vehicles.
- Illuminating areas of vehicle engine compartment for night repairs using chemical lights.
- Regulating the amount and direction of light utilizing chemical light holders.

4-129. Light discipline requirements affect AHS support operations as much as they do supply and maintenance operations. Medical units will use additional fuel to run a vehicle-mounted night site. Treatment operations require lightproof shelters.

4-130. Patient acquisition is more difficult. Units should employ some sort of casualty-marking system, such as luminous tape. The casualty-marking system should be included in the tactical SOP and should be standardized across the maneuver battalion. When Role 2 assets arrive to the Role 1, it is critical they are integrated and briefed on the Role 1 medical unit's tactical SOP. It is also important that Role 2 leaders ensure their Soldiers understand that if they are not provided the Role 1 tactical SOP they should request it prior to execution of the mission.

4-131. Limited visibility slows MEDEVAC. This requires additional ground ambulances to compensate. In the offense, ambulances move forward with the Role 1. However, personnel must accomplish this movement carefully to avoid signaling the threat. Personnel use predesignated AXPs. Medical evacuation by air ambulance is difficult and requires precise grid coordinates as well as prearranged signals and frequencies.

4-132. An infrared device is a "quick fix" device for friendly identification. Combat identification panels do not replace current acquisition, identification, or engagement procedures. They provide a device visible through thermal sights to increase situational understanding and provide a safety net at the normal engagement range. These devices can be used to further identify medical vehicle and units.

4-133. Near infrared devices that aid in C2 may be used for signaling and marking devices. The infrared beam is an effective means to increase situational understanding and combat effectiveness and improve identification. When used for marking obstacles, seized terrain, and breached sites, these devices reduce the fratricide risk. Additionally, these lights are signaling devices (that is, configuration of certain patterns to indicate unit identification, turn on or off to signal accomplishment of a task, cross a phase line, and signal from one ground position to another specific position or from ground to air). They are also useful in specialized units, such as pathfinders, for marking pickup, drop, or landing zones. These are excellent devices for near recognition signaling to guide incoming evacuation vehicles.

4-134. Many of the ambulance and treatment vehicles may be fielded with infrared headlights. These infrared headlights can be used for assisting drivers who wear night vision goggles and for signaling. As with all lights, extreme caution must be taken in tactical situations. The infrared headlights are typically very bright to personnel wearing night vision goggles.

4-135. Each vehicle supporting the Role 1 should have two night vision devices. The wheeled vehicle driver will use either the night vision device or the driver's vision enhancer. The night vision goggles (a hand-held, head-mounted, or helmet-mounted night vision system) enable walking, driving, weapons firing, short-range surveillance, map reading, treatment of patients, and vehicle maintenance in both moonlight and starlight. The driver's vision enhancer is a thermal imaging system capable of operating in degraded visibility conditions such as fog, dust, smoke, and darkness. In conditions of reduced visibility, using a driver's vision enhancer would allow an ambulance or CASEVAC vehicle to maintain speeds up to 55 to 60 percent of those attained during normal daylight operations.

4-136. For marking, chemical lights can be placed inside standard military short or long pickets to mark routes and positions. The concave side of the picket contains the chemical light, and the convex side faces the most likely direction of enemy observation. This technique controls the direction of the light while assisting with such things as MEDEVAC routes, supported unit collection points, AXPs, or link-up point identification.

4-137. For signaling, tying a chemical light to a length of cord or string and twirling it overhead in a circle is an unmistakable signal. This technique is often referred to as a "buzz saw" or when using infrared chemical lights as an "IR buzz saw." This only needs to be used until recognition (radio) is established. It is especially useful for a unit guiding an incoming ground or air ambulance. Medical personnel can use this technique for marking casualty locations (for example, urban operations) or for marking triage areas at the BAS to identify patient triage categories.

Note 1. Techniques are only limited to available equipment and imagination. The METT-TC (I) should always take precedence.

Note 2. The use of infrared chemical lights illumination will not be seen by personnel who are not wearing night vision devices.

ROLE 2 SUPPORT IN CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR ENVIRONMENT

4-138. Despite international treaties, many adversaries possess weapons of mass destruction and systems to deliver them. Key nodes, such as the corps and division sustainment capabilities, are high value targets for enemy weapons of mass destruction. Although the medical company or its subordinate units may not be specifically targeted, locating close to key nodes can make the medical company vulnerable to weapons of mass destruction.

4-139. The medical company and subordinate units must be prepared to conduct operations in a CBRN environment. Prompt notification of and reaction to downwind messages in the event of CBRN attack will enhance both unit and individual CBRN defensive measures. Defensive measures include all measures necessary to increase the effectiveness of operations and reduce the degradation to operating tempo and to minimize casualties. These measures may be either proactive or reactive in nature. They include contamination avoidance and control, protection, and decontamination. For specific guidance for CBRN protection and contamination mitigation, refer to ATP 3-11.32. For definitive information on AHS support in a CBRN environment, refer to ATP 4-02.7. The Role 2 must be prepared to establish and operate a PDS to decontaminate patients before they are treated or while reconstituting a Role 1 MTF in a CBRN environment.

4-140. Army Health System support planning factors for CBRN defensive operations include—

- Increased casualty rates.
- Supply and resupply disruption.

- Contamination of unit equipment, supplies, and personnel.
- Contaminated MEDEVAC assets.
- Mission performance degradation due to individual protective postures.
- Additional time to treat patients due to decontamination.
- Disruption of lines of communication.
- Equipment damage (electromagnetic pulse).
- Targeting of key nodes.

4-141. Battlefield operations under CBRN conditions may present MASCAL situations that occur with little or no warning and have long-lasting residual effects. The range of enemy weapons, CBRN weapons or agents, directed energy weapons, and weapon delivery systems may cause high casualty rates, especially in poorly trained or equipped troops and units. If the MTF is in affected areas; this can compromise medical treatment and other AHS services.

4-142. The flexibility of Role 1 and Role 2 medical units and their modular design allows reconstitution of other Role 1 and Role 2 units or the ability to task-organize to meet the AHS requirements of the supported units.

4-143. Proper patient triage is critical in a CBRN environment. Many patients, particularly those with mild injuries, have excellent RTD potential. These individuals, if promptly and properly treated, may RTD within hours or days. Those patients with CBRN effects or radiation exposure requiring hospitalization will be evacuated to a Role 3 MTF. Combat and operational stress reaction patients will be evacuated to the appropriate combat stress unit.

4-144. Many Soldiers who only have COSR will present physical signs and symptoms that resemble CBRN exposure but are psychogenic (also known as "worried well") and have not actually been exposed. An estimated 30 to 85 percent of the casualties in CBRN incidents can be psychogenic personnel. Psychogenic personnel should be identified and not be evacuated to Role 3 MTFs, this will prevent the Role 3 MTFs from exceeding their capacity. Evacuating these Soldiers to hospitals could reinforce their perception or belief that there is something wrong with them beyond battle fatigue, psychological stress reaction, or stress. This could cause them to exaggerate the severity of their conditions. In addition, hospitalization could slow their recovery, and they could develop a chronic disability.

SECTION III – ROLE 2 SUPPORT TO SPECIFIC OPERATIONS

4-145. As with environment considerations, AHS support planners and Role 2 commanders may have unique planning considerations for specific operations. The AHS principles and medical functions should be the foundation for all planning regardless of the environment or type of operation that is occurring.

ROLE 2 SUPPORT IN STABILITY OPERATIONS

4-146. Stability is an overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment and to provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief. Army Medicine has historically conducted foreign humanitarian assistance operations when deployed in overseas areas. In some scenarios, medical forces may be deployed prior to the deployment of maneuver forces due to the humanitarian nature of their activities, and medical personnel are more acceptable to a host nation than the deployment of operating forces.

4-147. Although the medical commander can provide the combatant commander assistance in planning for the primary stability tasks to restore essential services and support to economic and infrastructure development, the Assistant Chief of Staff, Civil Affairs is the responsible staff agency for developing and planning civil affairs operations. This ensures that all stability activities conducted are in consonance with the combatant commander's theater engagement strategy.

4-148. Table 4-4 on page 4-27 depicts stability tasks, purposes, and key medical considerations for the preparation for the conduct of these tasks. For more information on stability tasks, see DODD 3000.05, ADP 3-0, ADP 3-07, and ATP 4-02.42.

Table 4-4. Stability tasks

Primary tasks	*Purposes*	*Key medical considerations*
• Establish civil security (including security force assistance). • Establish civil control. • Restore essential services. • Support to governance. • Support to economic and infrastructure development.	• Provide a secure environment. • Secure land areas. • Meet the critical needs of the populace. • Gain support for the host nation government. • Shape the environment for interagency and host nation success. • Shape civil conditions.	• Operationally focused Role 1 and Role 2 medical command and control engaged to promote unity of purpose of all engaged medical assets in support of the stability task. • Medical information management to provide and synchronize health risk communication, coordinate multinational forces HSS and FHP services, interagency medical interoperability, and to document health encounters. • Traditional AHS support to a deployed force engaged in stability tasks. • Medical expertise and consultation services to enhance medical capacity building in the public, private, and military health sectors within the AO of the BCT. • Development of operationally focused (medical capabilities and responsibilities in the operational area inherent in Role 1 and Role 2 organizations) AHS support to stability tasks. • Synchronization of Role 1 and Role 2 AHS support plans and operations aimed at mitigating or resolving the underlying causes of health issues prevalent within the operational area. • Augmentation of MESs with pediatric, geriatric, and obstetrics equipment and medical supplies.

LEGEND

AHS	Army Health System	BCT	brigade combat team	HSS	health service support
AO	area of operations	FHP	force health protection	MES	medical equipment set

ROLE 2 SUPPORT TO DEFENSE SUPPORT OF CIVIL AUTHORITIES OPERATIONS

4-149. Like stability operations, the U.S. Army conducts defense support of civil authorities' tasks only in the homeland in response to requests for assistance from civil authorities for domestic emergencies. Defense support of civil authorities is support provided by U.S. military forces, DOD civilians, DOD contract personnel, DOD component assets, and Army National Guard forces (when the Secretary of Defense, in coordination with the Governors of the affected States, elects and requests to use those forces in Title 32, Code of Federal Regulations [CFR] status). This support is in response to requests for assistance from civil authorities for domestic emergencies, law enforcement support, and other domestic activities or from qualifying entities for special events. Defense support of civil authorities is a task that takes place only in the homeland, although some of its tasks are like stability tasks. Table 4-5 identifies defense support of civil authorities' tasks, purposes, and key medical considerations. For additional information on these types of tasks, refer to ADP 3-28.

Table 4-5. Defense support of civil authorities' tasks

Primary tasks	*Purposes*	*Key medical considerations*
• Provide support for domestic disasters. • Provide support for domestic chemical, biological, radiological, and nuclear incidents. • Provide support for domestic civilian law enforcement agencies. • Provide other designated support.	• Save lives. • Restore essential services. • Maintain or restore law and order. • Protect infrastructure and property. • Maintain and restore local government. • Shape the environment for interagency success.	• Medical command and control to coordinate, integrate, and synchronize Army Health System support resources into interagency efforts focused on defense support to civil authorities. • Provide medical expertise to identify and analyze critical emerging medical needs within the operational area. • Medical information management to facilitate medical regulating of victims to medical facilities outside of the disaster and incident area and document medical treatment provided. • Assist the affected medical infrastructure in saving lives and alleviating human suffering. • Assist the local government in conducting rescue, triage, and medical treatment, and provide medical evacuation of victims to facilities capable of providing the required health care. • Provide personnel protective measures to respond to and resolve emerging health threats caused by the disaster or incident.

ROLE 2 SUPPORT IN WET GAP CROSSING OPERATIONS

4-150. Attacks across a river exert decisive influence on the utilization of AHS support assets and are like that of an amphibious assault or a breaching operation. Army Health System support to a breach is discussed in chapter 6. The Role 1 should cross the river as soon as combat operations permit to provide prompt

treatment to the heavy patient load anticipated early in the attack and to minimize cross-river evacuation. Maximum possible use of air evacuation assets should be made to preclude excessive buildup of patients in the far shore treatment assets.

4-151. In the attack wet gap operation, near shore treatment assets are placed as far forward as assault operations and protective considerations allow reducing ambulance shuttle distances from off-loading points. Medical resources deployed on the far shore are restricted to the absolute minimum needed to provide effective support. Evacuation of far shore treatment assets are expedited, utilizing amphibious, ground, and air evacuation, to preclude excess accumulation of patients forward of the wet gap barrier. In the defense, near shore treatment assets are located farther to the rear than in the attack to preclude their having to displace in a cross-river withdrawal.

4-152. Medical support in support of a wet gap crossings, while conforming in general to AHS support doctrine of offensive operations, should be focused on the support of the combat troops during the advance to the wet gap (preliminary phase). Army health system support should then shift to those forces during the crossing of the wet gap and then capture of the initial objective. Support should then shift to the operations incident to the seizure of the intermediate objective, and then during the attack to gain the bridgehead.

4-153. During the preliminary phase secrecy in movement to the wet gap should be maintained to reduce the potential of increased casualties. Casualty collections points may or may not be established along the main approaches to the wet gap crossing sites for the care of the wounded, sick, or injured.

4-154. At the end of the preliminary phase, the Role 1 and any attached Role 2 treatment teams are established to render normal medical support around each crossing. Aid and litter teams attached to each treatment team may be employed near each crossing site. Ambulances are advanced as near to the wet gap as possible, and these locations should be in positions that afford protection from direct enemy fire.

4-155. Medical personnel will provide close support to their respective units. Combat medics accompany their respective companies in the crossing. Combat medics and their supporting ambulance team (mounted or dismounted) cross in succeeding waves. These combat medics and ambulance teams establish support on the far bank as soon as the situation permits.

4-156. Aid and litter teams remove patients from returning craft and carry them to ambulances or to a designated CCP for further movement to the Role 1 or Role 2. Air ambulance elements provide evacuation of patients from the far bank, considering the mission variables of METT-TC (I), after the Role 1 has been established on the far bank.

4-157. At the end of the first phase, the Role 1 will have been established on or beyond the far bank. After the establishment of the Role 1 on the far bank, patients are held until transportation to the near bank is available. Patients are then evacuated from the Role 1 MTF by amphibious, ground, or air means. Initially, patients are placed on returning craft for evacuation to the near bank where the Role 1 MTF is located. When helicopters are employed as a means of air landing assault troops, the returning aircraft may be utilized to furnish rapid evacuation of patients to treatment teams on the near bank.

4-158. During the second phase, elements of the supporting Role 2 evacuation platoon are providing MEDEVAC on both banks of the river until the Role 2 has been established on the far bank. The Role 2 may displace forward to a point nearer the wet gap during this phase.

4-159. When the second phase has been completed, the Role 2 should be moved forward to a position either close to the near bank or across to the far bank as conditions dictate. A relatively high priority should be granted to the elements of the Role 2 for movement across any established and intact bridges. In the absence of functioning bridges, movement of medical elements by surface craft may be authorized.

4-160. During this final phase, medical units move across the wet gap as rapidly as possible and resume normal operating conditions on the far bank. The EAB medical units may be called upon to care for large numbers of patients destined for movement out of the battalion and brigade area. This will depend on the establishment of ample bridge facilities and the resumption of normal evacuation by higher headquarters.

ROLE 2 SUPPORT FOR FORCIBLE ENTRY OPERATIONS

4-161. When the maneuver includes vertical envelopment by an airborne or air assault force, the organic brigade medical elements accompany the force through insertion by parachute or helicopter. When an airborne or air assault force is employed in the vertical envelopment, the Role 2 medical elements, which are transportable by light or medium helicopters, may accompany the airborne or air assault force. Any delay in linkup may require commitment of additional treatment and holding facilities to the airborne or air assault force. In airborne operations, U.S. Air Force aircraft provide evacuation until the linkup is made, whereas in air assault operations evacuation of patients is provided mainly by Army AE ambulances. Air assault operations in isolated HLZs may require complete reliance on Army AE or patient movement by other Army nonmedical aircraft returning from the airhead.

4-162. When airborne and air assault forces are used, infiltrating elements can land at various points within the enemy's support area and proceed on foot to designated attack positions. As in surface movement, the number of medical supplies taken could be limited. In airborne operations, the evacuation of patients will be by litter bearers or ground ambulances to CCPs or the Role 1 MTF and then by Role 2 ambulances to the AXP or directly to the Role 2. In air assault operations, the evacuation is by litter bearers to CCPs or the Role 1 MTF and then by air ambulances to the Role 2 or farther to a Role 3, if feasible. Once the combat element begins the assault on the objective, secrecy is no longer paramount, and its isolated location requires AHS support characteristic to airborne and air assault operations until ground linkup.

ROLE 2 SUPPORT TO AIRBORNE OPERATIONS

4-163. Airborne (forced entry) operations are like air assault. If any significant resistance is expected, a treatment team from the Role 2 may be required to support the third maneuver company if the assault objective proximity will not support manual collection of casualties to the nearest treatment team, 500 meters (0.3 mile) is realistic. Units cannot depend on heavy drop vehicles or air lands to be available to provide timely support for those injured during the initial assault. The use nonstandard vehicles should be maximized to assist in casualty collection. For more information on airborne operation, refer to FM 3-99.

The Airborne Division

4-164. The airborne division can rapidly deploy anywhere in the world to seize, retain, exploit, and secure vital objectives. The airborne division must be able to conduct forcible entry operations. It conducts parachute assaults to capture initial lodgments, execute large-scale tactical raids, secure intermediate staging bases or forward operating bases for ground and air operations, or rescue U.S. nationals besieged overseas. It also can serve as a strategic or theater reserve as well as reinforcement for forward presence forces. The airborne division can assault deep into the enemy's support areas to secure terrain or interdict enemy supply and withdrawal routes. It can seize and repair airfields to provide a forward operating base and airheads for follow-on air-landed forces. It is capable of all other missions assigned to infantry divisions.

4-165. The airborne division uses its strategic and operational mobility to achieve surprise on the battlefield. The U.S. Air Force can accurately deliver the airborne division into virtually any objective area under almost any weather condition. All equipment is air transportable; most is air droppable. All personnel are trained for parachute assaults and airborne operations.

4-166. Airborne forces are special assets used at a time and place where they have a calculated advantage. They are not primarily intended to be used as "extra infantry" nor are they intentionally used in situations or on terrain where enemy capability reduces the shock or surprise of a strategic or tactical airborne assault.

4-167. The airborne division is organized with several airborne maneuver brigades and contains the necessary sustainment organizations. It is the only division with the immediate capability to conduct parachute assaults. However, the airborne division does have some limitations. It—

- Relies on U.S. Air Force tactical or strategic airlift for initial entry and resupply.
- Requires more close air support than that normally provided to other type divisions because it is organized with only light field artillery.
- Possesses limited ground and air mobility once delivered into the objective area.

- Reveals its vulnerabilities to attack by enemy armor or motorized formations.
- Depends on AE of casualties when units are isolated.

4-168. Engagements with enemy armored or motorized formations require special consideration. The division does not have sufficient armored protection to defeat heavier armored formations at close range. Antitank weapons in the division compensate for, but do not completely offset, this deficit. It is likely that airborne forces engaging enemy armored or motorized formations will take higher casualties than when engaging other infantry formations. This will consume additional medical supplies and require increased MEDEVAC and CASEVAC. For division organizational structure, refer to FM 3-94 and ATP 3-91.

4-169. Since there are generally not enough aircraft available to insert an airborne division in a single wave or assault, the division is not able to deploy its entire strength of paratroopers and support elements during the initial phases of the operation. Consequently, the division will deploy assault forces in echelons to continually reinforce and expand the objective area. This places an added burden upon medical support planners in determining how to support the operation with only a portion of their personnel and equipment during the early phases of the operation.

Predeployment

4-170. Personnel protective measures, which may be adopted for protection against certain endemic diseases, will be taken prior to deployment of the force. Medical personnel will ensure all paratroopers are trained on personnel protective measures and casualty response skills will be reconfirmed.

4-171. Prior to the insertion of the airborne medical platoon into an AO, the division, brigade, and battalion personnel staffs will make an initial casualty estimate. This estimate will include a consideration of endemic disease hazards as well as the nature of the threat posed by the enemy forces. A casualty estimate of the likely battle casualty rate and the major combat stress and disease threats will dictate the extent of initial and subsequent medical support required.

4-172. Medical platoon personnel are loaded onto several aircraft, so the loss of one aircraft will not restrict unit-level HSS. Combat medics and their basic load ride in the aircraft with the supported unit to which they are attached. When feasible, an ambulance team should be included in assault loads of each airborne rifle and weapons company. The treatment squad should not be loaded on one aircraft. Ideally, the two teams should be loaded on separate aircraft, along with their basic load. This facilitates their reconstitution or replacement and does not degrade medical support capabilities. Once the objective is secured, medical platoon personnel should pack their airborne load out with medically appropriate equipment and supplies to treat casualties. The medical platoon should plan for cross loading medical devices and supplies within the platoon and designate multiple treatment.

4-173. Medical support in the marshalling areas is provided by EAB medical units and must be requested during the operations planning process. Medical personnel in DS of the assaulting force are not used since all supplies and equipment have been packed and prepared for the assault.

Initial Deployment

4-174. During the initial phases of the attack, there will be a heavy dependence on unit medical resources, and medical care must be provided promptly and efficiently. In addition to casualties caused by enemy fire, jump injuries and crash victims will require care on the drop zone. When it is anticipated that the numbers of patients may exceed the capability of the Role 1, the Role 2 will provide augmentation. Treatment or ambulance teams from the Role 2 may be attached to maneuver battalions likely to sustain heavy casualties.

4-175. A FRSD may be attached to the Role 2 of a BCT to provide a surgical capability. Initially, the FRSD will be task-organized to augment the Role 2 in the BSA where their services are most required. With the FRSD's capability to split into two surgical sections, a battalion serving as the main effort may be assigned a 10-person forward resuscitative and surgical section, METT-TC (I) dependent.

4-176. Initial life-saving casualty response measures will be in the form of Tier 1 TCCC skills and Tier 2 TCCC skills performed by the CLS. Combat medics will provide Tier 3 TCCC and move with the unit. The casualty may be moved to the Role 1 MTF or to CCPs to await evacuation. Casualty collection points should be well marked and located near suitable landing sites to facilitate evacuation by air, if possible.

4-177. Ambulances may not be available until air-land operations begin due to lack of air-droppable platforms; as such, a robust CASEVAC plan should be planned for. When available, ambulances from the Role 1 ambulance section will transport patients from the point on injury or CCPs to the Role 1 MTF. Nonmedical personnel may act as litter bearers, and the use of nonmedical vehicles and aircraft for CASEVAC may be necessary.

4-178. The Role 1 MTF will be located in the battalion assembly area, and it will move with the battalion according to the tactical situation. Ground or air ambulances will move patients requiring further treatment to the Role 2 in the BSA. All patients who can be treated and RTD in their unit will be managed in this way, and no unnecessary evacuation will occur.

4-179. During the initial deployment, casualties requiring evacuation from the airhead are assembled near landing strips and airlifted and flown directly to the Role 3 in general support of the division. Normally, this activity will be coordinated between the brigade and division surgeons; however, the brigade surgeon may arrange such evacuation, if required.

4-180. With the arrival of vehicles and additional equipment by air delivery, air landing, or ground linkup, medical support will begin to resemble that of any ground operation. The airborne division's sustainment units will also move into the AO. At this time, the Role 2 may consolidate its resources into the BSA.

Medical Evacuation in Airborne Operations

4-181. When necessary, evacuation may be provided by any one or a combination of methods between the supported Role 1 and Role 2. Several factors, all relating to the tactical situation, affect the choice of method:

- Availability of routes.
- Traffic density on available routes.
- Time and distance factors.
- Proximity of routes to terrain features or installations that may draw enemy fire.
- Protection from enemy observation and fire.
- Cover and concealment for moving and stationary ambulances.
- Areas contaminated with CBRN agents.

4-182. Ambulance teams from the medical platoon are normally employed in DS of a committed airborne company (METT-TC [I] dependent) and are responsible for evacuating patients from the CCP to the Role 1 MTF.

4-183. Ambulance infiltration is the dispatch of ambulances singularly or in small groups. The ambulances travel over predetermined routes between the Role 1 and the Role 2, making round trips to move patients. This method provides for maximum dispersion of brigade ambulance assets.

4-184. Empty ambulances positioned at the various ARPs are from the evacuation platoon of the supporting Role 2. The main ARP is normally the Role 2 evacuation platoon headquarters where unemployed ambulances are stationed, ready to move forward as required. As an ambulance from an ARP moves forward to the Role 1 to pick up patients and transport them to the Role 2 MTF, ambulances from the main ARP are moved forward to replace them at the forward ARPs. This method requires close coordination between all ambulances and ambulance control points to ensure ambulances will be moving forward as others move rearward. When a shuttle system is not used, ambulances are dispatched from the main ARP on request of the Role 1. This method is sometimes referred to as an "on call" system.

4-185. The disposition of brigade MEDEVAC elements may reveal the disposition of combat units; therefore, appropriate security measures must be employed to prevent divulging tactical information to enemy forces. Medical personnel should consider the following security measures:

- Movements should be made at night, using blackout lights; daytime movement is not practical.
- Available defilade should be maximized.
- Maximum dispersion of vehicles and personnel, in keeping security and control, should be always exercised.

Medical Supplies (Class VIII Including Medical Repair Parts) in Airborne Operations

4-186. Delivery of all supplies to the objective area is by air. Care must be taken that no critical items of medical supply are omitted for resupply may be delayed. Losses of supplies and equipment must be anticipated; therefore, critical items must be duplicated and loaded on separate aircraft. Aircraft requirements and availability must be considered in medical supply planning for airborne operations. Follow-up supplies should be on a "push" system until firm coordination is regained with the BMSO or with the MEDLOG officer assigned to the BSB support operations medical section (MEDSEC) or division surgeon section. For more information on support operations and MEDLOG, see ATP 4-90, ATP 4-02.1, and TC 8-270.

4-187. Since HSS is provided initially by dispersed units, supported by unreliable lines of communication, accompanying medical supplies are widely disseminated to Role 1 and Role 2. During the early assault period, medical resupply to individual brigades is direct from departure airfields. When the airhead is consolidated, the brigade and EAB medical supply point resumes its normal functions. Brigade and EAB medical supply liaison personnel may remain at a departure airfield to coordinate dispatch of follow-up medical supply to the airhead.

ROLE 2 SUPPORT TO AIR ASSAULT OPERATIONS

4-188. Army Health System support to air assault operations can be complex and challenging to plan due to the distances between the insertion objectives and the subsequent roles of care. The AHS support plan must conform with the maneuver plan, be synchronized, and rehearsed down to the lowest level possible. *Air assault* is the movement of friendly assault forces by rotary-wing or tiltrotor aircraft to engage and destroy enemy forces or to seize and hold key terrain (JP 3-18). For more information on air assault operations, refer to FM 3-99.

The Air Assault Division

4-189. The air assault division combines strategic deployability with tactical mobility within its assigned area. It attacks the enemy deep, fast, and often over extended distances and terrain obstacles. The air assault division must be able to conduct forced entry operations. Air assault operations have evolved into combat and sustainment elements (aircraft and troops) deliberately task-organized for tactical operations. Helicopters are completely integrated into ground force operations.

4-190. Air assault operations generally involve insertions and extractions under hostile conditions, as opposed to mere air movement of troops to and from secure locations about the battlefield. Once deployed on the ground, air assault infantry battalions fight like battalions in other infantry divisions; however, normal task organization of organic aviation results in greater combat power and permits rapid aerial redeployment. The rapid tempo of operations over extended ranges enables the division commander to rapidly seize and maintain the tactical initiative. For more information on division organizational structure, refer to FM 3-94 and ATP 3-91.

4-191. The air assault division is ideally suited for rapid employment to critical areas beyond the reach of ground forces. The division can—

- Attack from any direction in otherwise inaccessible areas.
- Overfly barriers and bypass enemy positions to surprise the enemy and cause them to react prematurely or disclose their position.
- Concentrate, disperse, or redeploy rapidly to extend the division's area of influence, develop enemy contact, or decrease its vulnerability to enemy attack.
- Maintain a rapid tempo of operations.
- Conduct combat operations under unfavorable weather conditions and at night to facilitate deception and surprise.
- Conduct airhead operations without external support for 48 hours.

4-192. The air assault division is organized with three maneuver brigades. It contains the necessary combat and sustainment organizations. However, the air assault division has some limitations:

- Helicopters cannot fly in extremely severe weather conditions.
- The division is vulnerable to enemy tactical aircraft, air defense, and electromagnetic warfare systems. For additional information on electromagnetic spectrum operations, refer to JP 3-85.
- It possesses little organic ground transportation assets.
- The division has limited collective protection systems to operate in a CBRN environment.
- The division is not intended to meet a heavy threat force in open terrain; however, it possesses capabilities unique from other light divisions, which minimize this limitation.

4-193. Air assaults differ from conventional missions in planning in that it is unlikely all or even most of the Role 1 medical unit's vehicles will be able to be sling loaded in to support the initial operation. Treatment teams can best operate dismounted, maneuvering with rifle companies. A treatment team from the Role 2 can reinforce the third maneuver company. The supported unit must delineate areas of responsibility based on proximity to support elements, specialty platoons, and C2 nodes, which often move with rifle companies during the initial phases of the operation. Casualties are generally evacuated directly from the company CCPs to the Role 2 or even Role 3 when appropriate. Transition into support of the follow-on ground tactical plan after the assault objectives have been secured must also be planned.

Medical and Casualty Evacuation in Air Assault Operations

4-194. Aeromedical evacuation employs air assets from the air ambulance companies assigned to the general support aviation battalions of the combat aviation brigades to conduct the air MEDEVAC of casualties. Dedicated air MEDEVAC aircraft include specifically trained medical personnel to provide en route care. The 9-line MEDEVAC request is the standard method to request MEDEVAC. The supported unit uses CASEVAC only when the number of casualties exceeds the MEDEVAC assets or when the urgency of evacuation exceeds the risk of waiting for MEDEVAC assets to arrive. Typically, air assaults plan for both air and ground evacuations. For more information on aviation operations, refer to FM 3-04, and for more information on MEDEVAC, refer to ATP 4-02.2.

Medical Evacuation Planning in Air Assault Operations

4-195. The combat aviation brigade normally allocates AE assets to the supported brigade or air assault task force (AATF) while it is conducting air assault operations. However, the size and distance of the planned air assault dictates the duration of MEDEVAC support to the AATF. As a rule, the supporting commander should provide MEDEVAC assets to the supported commander until ground lines of communications are established.

4-196. Typically, the evacuation platoon leader from the Role 2 and the FSMP platoon leader from the medical company, air ambulance, conduct the MEDEVAC planning for the air assault. They do so in coordination with the AATF personnel staff, AATF logistics staff, brigade aviation element, AATF operations staff, supported unit operations staff, BCT surgeon section, and Role 2 company commander. The FSMP platoon leader should brief the MEDEVAC plan at the air mission coordination meeting, the air mission brief, and during the aviation, sustainment, and medical rehearsals.

4-197. Planning for MEDEVAC during an air assault should—

- Integrate ground evacuation measures into the overall MEDEVAC plan.
- Plan MEDEVAC routes to Roles 1 through Role 3. Ensure all aircrews participating in the air assault know these routes.
- Plan for medical personnel to fly on CASEVAC aircraft if time and situation permit.
- Ensure MEDEVAC crews are available for air assault orders, rehearsals, and preparations.
- Brief CCP locations and markings during the air assault rehearsal.
- Plan to maintain a forward arming and refueling point after the air assault is completed, so MEDEVAC aircraft have a staging place for follow-on ground tactical operations.

4-198. Medical evacuation aircraft are limited assets and should be scheduled and used accordingly. The brigade or AATF's casualty estimate provides planning guidance for the number of MEDEVAC aircraft needed to support the air assault. To maximize the number of hours they can support the mission, personnel should stage MEDEVAC aircraft to support an air assault at the latest possible time. Medical evacuation

aircraft should support short distance air assaults from the pickup zone or BSA. Aircraft may stage at a forward arming and refueling point or use a restricted operations zone to expedite pick up of casualties in long distance air assaults.

Medical and Casualty Evacuation

4-199. Medical evacuation and CASEVAC aircraft normally are OPCON to the AATF during air assault operations. The air mission commander controls the MEDEVAC flights to facilitate quick deconfliction of airspace. The air mission commander clears all MEDEVAC and CASEVAC aircraft movements, to include launch and landings. The AATF commander or surgeon may retain mission authority, but the air mission commander maintains launch authority. When planning evacuation operations—

- Send MEDEVAC aircraft into a secure HLZ, if possible.
- Integrate attack reconnaissance aviation units to provide escort and HLZ overwatch as required.
- Ensure terminal guidance into the HLZ.
- Ensure redundant means of communication with the supporting MEDEVAC assets throughout the air assault.
- Designate a MEDEVAC officer in charge, typically a medical officer from the Role 2, to ride on C2 aircraft to receive and prioritize evacuation mission requests and forward this information to the air mission commander for launch.

Casualty Backhaul

4-200. The AATF staff and aviation unit staff plan the combined use of aerial and ground MEDEVAC and CASEVAC assets during air assault planning. While assaulting aircraft may backhaul wounded from the HLZ, the time required to load and unload casualties could desynchronize the air movement table.

4-201. Casualty evacuation may cause delays in air assault missions unless spare aircraft are committed to replace aircraft designated to backhaul casualties. Designating separate CASEVAC aircraft may prevent delays of follow-on lifts. Typically, requests for evacuation are over the combat aviation network for the duration of the air assault operation until an evacuation network, if necessary, is established. This ensures good coordination for deconfliction of fires and airspace.

4-202. Procedures for casualty backhaul during an air assault are—

- Evacuation request goes to C2 aircraft.
  - The medical officer onboard relays the request to the air mission commander.
  - If approved, the air mission commander directs the next serial's last two aircraft, METT-TC (I) dependent, to move to the HLZ CCP to pick up casualties after dropping off personnel.
- All backhauled casualties are taken back to the pickup zone CCP.
- Backhaul aircraft with casualties notify pickup zone control they are inbound with casualties.
- Last serial of the final lift makes the final pick up of casualties before the conclusion of the air assault, if necessary.

Evacuation Landing Zone

4-203. During air assault planning, the AATF staff and air mission commander plan the combined use of air MEDEVAC and air CASEVAC HLZs. The AATF plans a means of marking the CCP for air medical or assault aircrew identification. Preferred HLZ signaling methods include smoke or panel markers (VS17 panel marker) during the day and strobe or chemical lights (not blue or green, which are not visible under night vision goggles) at night. If air assault crews evacuate casualties, they must know where to take them and how to rejoin remaining lift aircraft for subsequent lifts. Using a backhaul HLZ within the normal assault pickup zone, a forward arming and refueling point, or both can minimize disruption of the loading plan while helping maintain serial integrity.

4-204. Evacuation HLZ selection and procedures include—

- A dedicated HLZ may be used for both air medical and aerial CASEVAC.
- Landing zones are level and clear of debris within a 50 meter (164 feet) radius.

- Light sources must be kept away from the HLZ unless instructed otherwise by aircrew.
- Inbound evacuation aircraft must have an estimated time-of-arrival call.
- Personnel communicating with the aircraft at the pickup site have visual on the HLZ to confirm the signal or to assist the crew as required.
- When evacuation aircraft have landed, only medical personnel and litter bearers should approach the aircraft once directed by the crew.
- The unit should provide personnel to assist in loading the patient on the aircraft, and if present, loading should be performed under the direction of medical personnel.

Chapter 5

Medical Company (Role 2) Support for the Defense

The primary responsibility of the medical company (Role 2) is to directly support the Role 1 medical support and provide area support to those units without medical personnel. The Role 2 accomplishes this by providing augmentation and reinforcement to the Role 1 MTFs. This chapter begins with a general discussion of the defense and continues with sections on planning and preparing Role 2 AHS assets to support the defense.

SECTION I – OVERVIEW OF DEFENSIVE OPERATIONS

5-1. The defense is what provides time for a commander to build combat power and establish conditions to transition to the offense. The defense is ideally a shield behind which a commander maintains or regains the initiative. Initially, a defending commander is likely to be at relative disadvantage against an attacking enemy. For additional information on defensive operations, refer to FM 3-0.

5-2. A *defensive operation* is an operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations (ADP 3-0). Defensive operations combine static and dynamic elements, supported by deep attack. This allows the defense to defeat the offense's momentum, present them with the unexpected, defeat their combined-arms, and gain the initiative.

5-3. The defense is a temporary measure adopted until a force can assume or resume offensive operations. The defense is undertaken to develop more favorable conditions for subsequent offensive operations, economize forces in one area to apply decisive force elsewhere, destroy or trap a hostile force, deny an enemy entrance to an area, or reduce enemy capability with minimum losses to friendly forces. The defense denies success to an attacking enemy (see ATP 3-90.1). Defensive operations are also used to—

- Control essential terrain.
- Preserve forces, facilities, installations, and activities.
- Retain tactical, strategic, or political objectives.
- Gain time.
- Force the enemy to mass so they are more vulnerable to firepower.

5-4. Commanders describe a defensive course of action (COA) and scheme of maneuver through any combination of the three forms of defense. For more information on the forms of defense, refer to ATP 3-90.1. Within each form there are unique medical planning considerations. The three forms of defense available to commanders are—

- Defense of a linear obstacle.
- Perimeter defense.
- Reverse slope defense.

5-5. Army tactical units conduct three types of defensive operations: area defense, mobile defense, and retrograde. The *area defense* is a type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright (ADP 3-90). The *mobile defense* is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force (ADP 3-90). The *retrograde* is a type of defensive operation that involves organized movement away from the enemy (ADP 3-90). Delay, withdrawal, and retirement are the three forms of retrograde operation.

SECTION II – ARMY HEALTH SYSTEM SUPPORT PLANNING FOR THE DEFENSE

5-6. Defensive options form a continuum from static defense (strong points) designed exclusively to retain terrain to a wholly dynamic defense that focuses only on the enemy. The defense and enemy offensive capabilities influence the character of the patient workload and its time and space distribution that determine allocation of medical resources and location of the Role 2 MTF. The same basic considerations discussed in chapter 4 influence the utilization of medical units.

5-7. Army Health System support provided for the defense may reflect lower casualty rates, but threat actions and the maneuver of combat forces complicate forward area patient acquisition. Medical platoon personnel are permitted less time to reach the casualty, complete vital TCCC, and remove the patient from the battle site.

5-8. The depth and dispersion of the defense create significant time and distance problems for evacuation assets. Combat elements could be forced to withdraw while carrying their remaining patients to the rear. The enemy exercises the initiative early in the operation, which could preclude an accurate prediction of initial areas of casualty density. This makes the effective integration of air assets into the MEDEVAC plan essential. The use of air ambulances must be coordinated, and they are normally positioned in the BSA.

5-9. Army Health System support operations for defensive operations are like those for offensive operations; however, normally, the timeframe in which the operations must be conducted is compressed. The only means for increasing the mobility of AHS support units is to evacuate the patients they are holding. When rapid shifts are anticipated in the OE, AHS support units must evacuate patients from the potentially affected units to ensure the units' agility and to enhance their capacity for newly arriving patients. Table 5-1 on page 5-3 depicts the defensive operations, purposes, and key medical considerations when preparing for these types of operations.

Table 5-1. Types of defensive operations, purposes, and key Role 1 and Role 2 medical considerations for defensive operations

Type of defensive operation	*Purposes*	*Role 1 and Role 2 key medical considerations*
Mobile defense. Area defense. Retrograde.	Deter or defeat enemy offensive operations. Gain time. Achieve economy of force. Retain key terrain. Protect the populace, critical assets, and infrastructure. Develop intelligence.	All medical functions fully synchronized by medical command and control. Focus of effort: locate, acquire, treat, stabilize, and evacuate. TCCC administered by nonmedical individuals (self-aid/buddy aid) by CLS. TCCC procedures by combat medics. TCCC by physician and PA at the BAS and Role 2 MTF. Resuscitative (damage control) surgery at collocated FRSD. Prevention of endemic and epidemic diseases. Emergency resupply of Class VIII equipment and supplies may be required to support CLSs, combat medics, ambulances, and BASs. Emergency resupply of Class VIII blood and blood products may be required for Role 2 MTFs and FRSDs. Stability tasks to support the affected civilian population within the defensive perimeter. Emphasis is placed on the rapid acquisition, stabilization, and evacuation of patients generated by units in contact. This enhances the mobility of supporting AHS units and facilitates the commander's ability to exploit opportunities and leverage the momentum to mount a counterattack or perform other maneuvers. Responsive MEDLOG that facilitates and sustains the treatment of patients during the fight. Theater hospitalization to provide essential care in theater to all categories of patients.

LEGEND

AHS	Army Health System	MEDLOG	medical logistics
BAS	battalion aid station	MTF	medical treatment facility
CLS	combat lifesaver	PA	physician assistant
FRSD	forward resuscitative and surgical detachment	TCCC	tactical combat casualty care

ARMY HEALTH SYSTEM SUPPORT OF DEFENSIVE OPERATIONS

5-10. Generally, medical support of defensive operations is more difficult than in offensive operations. Patient loads reflect a lower casualty rate, but forward area acquisition of patients is complicated by enemy action and the initial direction of maneuver to the rear. The enemy exercises the initiative early in the operation, which precludes accurate prediction of initial areas of casualty density. The probability of initial enemy penetration requires medical treatment teams be located farther to the rear than in the offense.

5-11. Heaviest patient workloads, including those produced by enemy artillery, rockets, and CBRN weapons, may be expected during the preparation or initial phase of enemy attack and in the counterattack phase. The enemy attack may disrupt ground and air communications routes and delay evacuation of patients to and from treatment teams. Stockpiling medical supplies in individual fighting positions is a technique used in defense to lessen the burden on the combat medic's individual load and to promote robust self-aid/buddy aid and care provided by the CLS.

5-12. Reserve maneuver elements play a decisive role in defense, and the location of treatment teams must not complicate the maneuver of reserves. Further, EAB medical units commensurate with the size and composition of the reserve are initially withheld from operations for immediate commitment to support of the reserve.

5-13. The depth and dispersion of the defense create significant time and distance problems in patient evacuation support to security and fixing forces. Security forces may be forced to withdraw while simultaneously carrying their remaining patients to the rear. The use of Army air ambulances will expedite the evacuation of these patients.

5-14. The EAB medical assets in support of the brigade achieve the flexibility needed to support defensive operations at a location of the enemy's choosing by being assigned direct or general support missions instead of direct attachment to the battalions.

5-15. Medical assets in support of the brigade are established and kept as mobile as possible by frequent and continuous evacuation of patients. Mobility is also enhanced by establishing the minimum size Role 1 through Role 3 necessary to cope with the patient load.

ARMY HEALTH SYSTEM SUPPORT OF THE AREA DEFENSE

5-16. In a defensive battle, commanders generally use tanks and overwatching long-range antitank weapons. They use short-range antitank and other infantry weapons in urban, wooded, or rugged areas to defend static positions. Each commander decides how to task organize, depending on the battle plans. On some occasions, the brigade commander may decide to a use CAB without cross reinforcing to make special use of the capabilities of each. For example, they may position a CAB (Infantry) in a cluster of small villages all within supporting distance of each other across an avenue of approach. The CAB (Armored) forms the dynamic element, counterattacking the flank or rear of the enemy force as it encounters the dug-in CAB (Infantry).

5-17. Strong points are the most static elements of a defense. A *strong point* is a heavily fortified battle position tied to a natural or reinforcing obstacle to create an anchor for the defense or to deny the enemy decisive or key terrain (ADP 3-90). Strong points can be located on terrain features critical to the defense or at a bottleneck formed by natural terrain or man-made obstacles.

5-18. Strong points astride or along avenues of approach in small urban areas may make it possible to halt a superior force for an extensive period. When nuclear or chemical weapons are employed, strong points must be well camouflaged and protected, or forces must occupy them just before the enemy's arrival. To be effective, the strong point must—

- Surprise the enemy.
- Congest and limit the enemy's maneuver.
- Set up a counterattack.

5-19. Commanders can extricate the force in the strong point after it has accomplished its mission and before enemy follow-on forces arrive. Whatever the defensive techniques, the overall scheme should maximize maneuver and offensive tactics. When the enemy has committed their forces, defenders should seize the initiative and counterattack over familiar ground protected by their own positions. Units can destroy a halted, disorganized enemy.

ARMY HEALTH SYSTEM SUPPORT OF COVERING FORCES

5-20. Forces used in the defense may include the covering force, observation posts, listening posts, patrols, flank guards, and support area security forces. The BCT's highly mobile security forces must have enough combat power to adequately screen the forward edge of the battle area and force early deployment of the enemy's main force. The brigade's cavalry squadron, reinforced by fires, military intelligence, and engineer and aviation elements, normally performs the security mission. The medical support of the security force will depend on the ultimate size, organization, and mission of the security force.

5-21. The covering force presents a particularly challenging AHS support mission. The cover force requires fluid, rapidly changing maneuvers to identify the nature, size, and direction of probable enemy attacks. Lines of evacuation and logistical support are long and unsecure, and the nature of the mission creates expectations

of high casualty rates. Patient evacuation and resupply will be accomplished by air ambulance whenever the tactical situation permits. When this is not possible, the evacuation of patients may be best accomplished by the medical units being reinforced with ambulances and crews evacuating patients to prearranged AXPs. At these AXPs, patients are transferred to Role 2 ambulance assets and shuttled back to the Role 2. This allows the ambulances evacuating the patients from the covering force to make the transfer and quickly turn around to support the medical platoons again reducing the risk of the tactical situation changing and the medical platoon relocating during their absence. It also allows the evacuation system to take full advantage of short periods of secure, forward evacuation routes. The medical platoon and company CCPs may need to be augmented with extra medical personnel and expertise to provide prolonged care for the casualties during extended periods when patient evacuation is not possible.

5-22. Unit medical support elements of security forces establish treatment teams or provide tailgate medicine support to maintain maximum mobility. Ambulances are initially deployed well forward to promptly clear patients from the combat units. The covering force's medical platoon headquarters section remains in close contact with operations of attached aviation elements, using their resources for patient backhaul capabilities. This is done in lieu of long ground ambulance trips with patients who need little or no medical attention en route. Early evacuation of patients from treatment teams is the rule to help preserve station mobility for rearward displacement.

5-23. Role 2 ambulances may operate under the control of the covering force medical platoon. Because the supporting Role 2 is established up to 25 kilometers (15.5 miles) to the rear of main defensive forces, evacuation distances are lengthy. The size of covering forces and their relatively high casualty rate demand heavy commitment of Role 2 ambulance resources to their support. Maximizing the use of supporting air ambulances of the forward MEDEVAC platoon for evacuation of more seriously ill or injured patients and shuttling the balance of patients to the nearest MTF behind the forward edge of the battle area will improve the responsiveness of the ground ambulance assets committed to this mission.

5-24. The wide dispersion of units and the way they withdraw make the collection of patients difficult. When covering forces withdraw, patients are transported to the rear by the medical element that acquired them. If not accompanied by an ambulance, the company combat medics arrange transportation for their patients with the commander of the supported company. Seriously ill or injured patients still located in the Role 1 are given priority for evacuation by the withdrawing aviation elements. Ground ambulances, augmented by CASEVAC vehicles as required, may transport the remainder of the patients. No intraforce evacuation is attempted during this maneuver. Patients are carried with the force to its destination or are transferred to other brigade or division-level supporting Role 2 or Role 3 MTF en route as their condition dictates.

ARMY HEALTH SYSTEM SUPPORT OF THE MAIN OPERATIONS AREA

5-25. In the defense, units are task-organized and employed according to their weapons' system capabilities to countermaneuver against the enemy's attack. As the covering force delays and identifies the strength, location, and direction of the main enemy attack, the brigade commanders will rapidly assign their battalions to defend within their AO. In defense operations, it is anticipated that a strong and determined enemy can penetrate the forward defense areas. The maneuver battalion will avoid being fixed by the enemy forces through maneuver to successive battle positions while inflicting heavy losses on the enemy.

5-26. The highly fluid nature of this battlefield makes the location and organization of company and battalion trains temporary and unpredictable. The company CCP and the Role 1s are routinely located within these areas. In this lethal environment, there may be extended periods of time when there is no safe ground or air evacuation routes to the rear and the coordination of patient evacuation is slow and tedious at best. Ground ambulance sorties may have to move under the same protection offered to the ammunition and fuel convoys. Patients may have to be transported to a templated CCP further to the rear by the Role 2 CASEVAC or MEDEVAC vehicles to be further sorted, stabilized, and evacuated.

5-27. The net result of the delays in CASEVAC is a need for augmentation of the Role 1 medical personnel, evacuation assets, and medical supplies. These resources must be requested though the Role 2. An example is the Role 1 requesting medical supplies utilizing the Defense Medical Logistics Standard Support (DMLSS) Customer Assistance Module (DCAM) to the BMSO who then fills or orders the supplies from the supporting

EAB MEDLOG company. The BMSO also informs the BSB SPO-MED and brigade surgeon on Class VIII status.

5-28. The mission and employment of the defending forces require modification of normal division-level EAB AHS support methods. Echelons above brigade units in support of a BCT are located to the rear of the brigade AO. Initial commitment of Role 2 ambulances in support of Role 1s is minimal. Lengthy, unsecure ground routes may permit patient evacuation only at periodic intervals by Role 2 ambulance augmentation, as requested by the Role 1 or surgeon section staff members of the defending forces. Medical resources of the Role 2 assigned to the BCT are normally placed in DS of Role 1; however, EAB medical assets may be maintained in a more general support role for the entire division to maintain a high degree of mobility and to support the areas of casualty density as the battle develops.

ARMY HEALTH SYSTEM SUPPORT OF THE MOBILE DEFENSE

5-29. The mobile defense focuses on defeating or destroying the enemy by allowing enemy forces to advance to a point where they are exposed to a decisive counterattack by the striking force. The *striking force* is a dedicated counterattack force in a mobile defense constituted with the bulk of available combat power (ADP 3-90). A *fixing force* is a force designated to supplement the striking force by preventing the enemy from moving from a specific area for a specific time (ADP 3-90). The commander uses the fixing force to hold attacking enemy forces in position, to help channel attacking enemy forces into ambush areas, and to retain areas from which to launch the striking force.

5-30. A mobile defense requires an AO with considerable depth. Commanders shape their battlefields causing enemy forces to overextend their lines of communication, expose their flanks, and dissipate their combat power. Commanders move friendly forces around and behind enemy forces to cut off and destroy them. Divisions and larger echelon formations normally execute mobile defenses. Brigade combat teams and maneuver battalions participate in a mobile defense as part of a fixing force or a striking force.

5-31. Army Health System support to the mobile defense is one of the most difficult tasks to accomplish. The nature of the mobile defense calls for units to be constantly on the move. Medical units supporting a mobile defense have to bring all six AHS principles into play. Role 1s should have detailed procedures for supporting a mobile defense in their tactical SOP, and Role 2s should have detailed procedures in their tactical SOP on how they will support Role 1s ensuring both procedures are synchronized. Mission and support packages identified in the tactical SOPs should be trained, rehearsed, and executed as a company battle drill.

ARMY HEALTH SYSTEM SUPPORT OF RETROGRADE OPERATIONS

5-32. The enemy may force retrograde operations, or a commander may execute them voluntarily. In either case, the higher commander of the force executing the retrograde must approve the operation before its initiation.

5-33. Reasons for conducting a retrograde operation include the following: to disengage from battle, to avoid combat in a disadvantageous situation, to draw the enemy into an unfavorable situation, to gain time without fighting a decisive engagement, to conform to the movement of friendly troops, and to permit the employment of a portion of the command elsewhere. In executing the planned movement away from the enemy, the division employs a combination of offensive, defensive, and delaying tactics supported by extensive artillery or nuclear fires. Maneuver elements in the BCT are frequently deployed over an extended front and conduct a series of independent unit actions within the framework of a detailed, overall plan. The specific retrograde maneuver may be withdrawal, delaying action, or retirement.

MEDICAL CONSIDERATIONS

5-34. During the retrograde AHS execute a transitional support operation; it is not conducted in isolation. It is part of a larger maneuver scheme designed to regain the initiative and defeat the enemy. The medical problems involved in retrograde movements may vary widely depending on the operation, the enemy reaction, and the current tactical situation. Firm rules that apply equally to all types of retrograde operations

are impossible to establish, but certain factors should be considered in the medical planning of all retrograde operations.

5-35. The AHS support requirements for retrogrades can vary widely depending upon the tactical plan, the threat reaction, and the METT-TC (I) factors. Considerations include the—

- Requirement for maximum security and secrecy in movement.
- Influence of refugee movement conducted in friendly territory, which could impede MEDEVAC missions.
- Integration of evacuation routes and obstacle plans.
- Difficulties in controlling and coordinating movements of the force that could produce lucrative targets for the threat.
- Movements at night or during periods of limited visibility.
- Time and means available to remove patients from the battlefield.
- Medical evacuation routes required for the movement of troops and materiel. This causes patient evacuation in retrograde movements to be more difficult than in any other type of operation. The threat could disrupt C2.
- MEDEVAC platforms being prioritized for movement.
- Transportation of the slightly wounded in cargo vehicles.
- Providing of guidance to subordinate commanders defining their responsibilities in collecting and evacuating casualties.
- Decisions concerning patients left behind. When the patient load exceeds the means to move them, the tactical commander must make the decision as to whether patients are to be left behind.

5-36. Factors to consider in the requirement for maximum security and secrecy in movement include—

- The influence of civilian evacuation, which may impede medical movements in connection with operations, conducted in friendly territory.
- Difficulties in controlling and coordinating movements of the force that may produce lucrative artillery targets for the enemy.
- Time is a critical factor. The number of casualties removed from any battlefield is dependent upon the time and means available. Time is important—
  - In stable situations and in the advance as it affects the physical well-being of the injured.
  - In retrograde operations as it decreases, the medical planners, platoon leaders, and surgeons at all levels must closely evaluate the capability to collect, treat, and evacuate all patients.

EVACUATION

5-37. Evacuation routes will be required for the movement of casualties and materiel. Patient evacuation in retrograde movements is considered more difficult than in any other type of operation. The enemy may disrupt C2 communications. The measures taken to counteract factors impeding evacuation during retrograde movements are beyond the scope of medical authority. For successful evacuation, the appropriate commander must take positive action. Successful evacuation requires the inclusion of ambulances on the list of priorities for movement, provision for the transportation of slightly wounded in cargo vehicles, and directives to subordinate commanders defining responsibilities in the collection and evacuation of casualties.

5-38. Mobility of medical companies will be enhanced by evacuating patients as their condition warrants directly from medical platoons to hospitals whenever necessary. Special emphasis must be placed on the triage of patients and consideration must be given to the type of transportation available for evacuation. Seriously wounded patients should be evacuated by the fastest and most comfortable means. Proper triage and rapid evacuation of patients will lessen the need for completely establishing the Role 2. This should be a coordinated effort between the air and ground ambulance units and the medical planners.

5-39. When the patient load exceeds the means to move them, the tactical commander must make the decision as to whether patients are to be left behind. Medical leaders or the brigade surgeon must ensure the tactical commander is kept informed about the need to reach a timely decision in this regard. Medical platoon personnel and supplies must be left with patients who cannot be evacuated.

ROLES OF CARE LOCATION DURING RETROGRADE MOVEMENT

5-40. During retrograde movement, the Role 1 usually displaces and holds patients for a short period. Locations for successive positions (from forward to rear areas) for the Role 1, Role 2, or Role 3 must be planned. Since the general direction of movement is toward these medical units, initial locations may be placed farther to the rear than in other types of operations. For continuity of support, a medical unit prepared to function before the forward location is closed should always occupy the next rearward location.

Displacement

5-41. Frequency of displacement will be determined by the rate of movement and the distance involved. The Role 1 must be displaced before there is danger of involvement in the action of forces conducting a retrograde movement. The Role 2 should "clear" all their patients and evacuate them to Role 3 to facilitate the receiving patients from the displacing Role 1. During displacement, it is critical that the Role 2 reduce its own footprint and be prepared to displace rearward. Coordination and synchronization should be made with EAB medical assets to cover the Role 2 support while the medical company is displacing. The displacement of the medical company should be identified in the unit tactical SOP, trained, rehearsed, and executed as a battle drill.

Future Operations and Passage of Lines

5-42. Operations to be undertaken at the conclusion of the retrograde movement must be considered when planning medical support. This consideration is most important in preparing for later phases of movement. When the retrograde operation involves a rearward passage of lines, detailed advanced planning between Role 1s of passing and passed BCTs or battalions is essential.

5-43. The surgeon of the brigade or battalion medical platoon leader and battalion surgeon being passed provides important information as to the location of the brigade and battalion forces, the Role 1, and evacuation routes within the area. The two units develop a coordinated plan for joint support of any abnormal patient workload that may develop in either brigade or battalion during the passage of lines.

5-44. Overconcentration of forces, which presents a lucrative target to the enemy, is a primary hazard in the passage of lines. The establishment of the Role 2 or Role 1 is limited to cope with expected patient workloads. In planning the location of the Role 2 and Role 1, detailed attention is given to selection of sites that offer the enemy the least amount of information as to location of major elements of either brigade or battalion. The medical support plans of both units during the passage of lines usually stipulates the passing unit transports its own patients to the rear, except for critically ill or injured patients who may be passed to the unit in place to expedite their treatment. This technique is employed to preserve the mobility of the medical support in the unit that is to assume the covering or defensive role.

Mobility

5-45. In retrograde operations more than any other maneuver, mobility of the Role 1 must be maintained. This is necessary to permit the rapid movement of these facilities without the need to abandon patients. The battalion-level medical assets can assist in maintaining this mobility by keeping the medical platoon free of patient accumulation and by keeping the Role 2 patient loads low by coordinating with the supporting medical elements and by recognizing any increase in patient loads early.

ARMY HEALTH SYSTEM SUPPORT OF WITHDRAWAL

5-46. *Withdraw* is to disengage from an enemy force and move in a direction away from the enemy (ADP 3-90). It may be forced by enemy pressure, or it may be conducted without enemy pressure. The Role 1s must be prepared to support the withdrawing force as well as the detachment left in contact, while the Role 2 continues to support the Role 1s.

5-47. Although the deployed force disengages from the enemy, contact is maintained by security elements while the main forces move directly to the rear and moves to predesignated locations. In the preferred withdrawal conducted at night not under enemy pressure, the maneuver elements in contact with the enemy must roll to the rear. This is usually done by designating a detachment of combat forces to remain in contact with the enemy. A *detachment left in contact* is an element left in contact as part of the previously designated

(usually rear) security force while the main body conducts its withdrawal (FM 3-90-1). This detachment is designed to prevent giving the enemy any indication a withdrawal is being executed and provides some protection to the withdrawing force. The detachment left in contact is generally made up of one-third of the riflemen and one-half of the crew served weapons personnel of each unit.

5-48. The problem of available time to acquire, treat, and evacuate patients from the line of contact may be critical. A proportionate medical capability remaining with the detachment left in contact may require implementation of some unusual methods of support. Among the potential plans to support the detachment left in contact are the following:

- Maximum use of Army air ambulances to evacuate patients from company areas directly to the Role 2 or supporting EAB medical asset if the weather, availability of aircraft, and tactical situation permits.
- Role 1s remain in original locations. The seriously wounded are triaged by combat medics and evacuated to the Role 1.
- Slightly wounded are gathered at CCPs established in forward areas (forward of the medical platoon location) then then evacuated either by MEDEVAC or CASEVAC to the Role 2.
- All patients are evacuated to the CCP, and EAB ambulances pick up patients at the CCP. Use of CCP forward of the normal aid station site reduces the time and distance involved in moving a patient to a point where they can receive TCCC.
- In each of these plans, it is advisable to issue litters to the maneuver elements to enable them to assist in collecting and evacuating some of their own casualties.

5-49. The balance of the Role 1 is placed predominantly rearward. Medical support organization during movement is modified accordingly. The bulk of the medical platoon resources and as much ambulance capability as can be spared is sent with advance elements to the next designated battalion assembly area where a treatment team is established. A small treatment and ambulance element, reinforced as required by Role 2 ambulances, marches at the rear of the main body picking up patients at CCPs along the route predesignated by the brigade AHS support plan and accepting patients from the security force. Patients are transported with the rear element to the new Role 1 or Role 2 location unless emergency evacuation is required. The security restrictions on movement and reduced visibility of darkness may dictate emergency evacuation by ground vehicles. A full patient load is moved rearward with the emergency sortie whenever possible because the ambulance probably will not be able to return to the tail of the column. Temporary halts at assembly points permit the rear element to evacuate its patients according to the division medical plan. The few AE movements permitted are used primarily to transport critical patients directly to a Role 3.

5-50. The daylight withdrawal, employed as a last resort, normally requires movement of combat columns through a single, large covering force, preferably one that is tank heavy. Role 1 support of the covering force is provided essentially as discussed for its security mission, except extensive AE of patients cannot be anticipated due to security restrictions and the lack of air cover. The Role 2 does not normally reinforce the Role 1 of the covering force's maneuver battalion because these assets are usually overwhelmed by dual area missions. The tactical SOP usually prescribes priorities for use of general-purpose transportation for patient movement. The tactical SOP provides the covering force commander with basic guidance for alternate plans to move casualties when the force must displace rearward without sufficient ambulance assets.

5-51. The supporting Role 2 must ensure it maintains sufficient treatment capability at its current locations to support the patients received from the detachment left in contact while it takes prompt action to move a portion of the Role 2 to a new location. It is imperative that a treatment team be operational in a new rear location prior to the closure and movement of the treatment team located in the forward location. In addition to AHS support provided the detachment left in contact, there is a requirement to support the main force that moves to the rear at an early stage in this operation. When such a move is made, march column medical support can be provided by establishing march CCPs along the route where patients can be left for pickup by medical personnel marching in the column or at the rear of the column. If this move of the main force is by infiltration, patients should be carried by their parent units to the rear assembly area or to Role 2 or Role 3 in the support area (the former is more likely), and medical assets should be positioned in the assembly area to receive such patients.

5-52. Echelons above brigade medical assets in support of the brigade are established at minimal size and well to the rear of the first line of alternate positions. If combat and environmental conditions indicate a light patient load and the road network permits rapid ambulance movement laterally as well as along the axis of withdrawal, two, or even one, area treatment teams may be utilized to provide general AHS support to all withdrawing brigades. Area treatment team activity consists principally of prompt triage of patients to determine who must be evacuated immediately to the supporting Role 3 and to provide required emergency and resuscitative treatment to prepare the more seriously injured or ill patients for early evacuation. Definitive treatment is provided only to those patients who are reasonably self-sufficient and who can travel with little jeopardy to their condition on general-purpose transportation.

5-53. The Role 2 leapfrogs rearward occupying successive planned positions placed deeply along the withdrawal route to minimize the requirement for multiple displacements by any one platoon. Leapfrog tactics avoid unnecessary interference with combat operations while providing continuous support. Role 2s or EAB ambulances are employed no farther forward than the principal element of each supported Role 1 with the division's main force; however, a light reinforcing detachment may be required to support the covering force in a daylight withdrawal. If the withdrawal is rapid, ambulance elements may leapfrog rearward, prepositioning a small pool of vehicles to support each succeeding Role 1 location rather than shuttling ambulances between Role 1 and Role 2s, as is customary. Preparation for the withdrawal operation includes a push distribution of medical consumable supplies and nonexpendable exchange items to each medical unit or element. The special allotment is required to overcome effects of abnormal isolation of treatment elements and intermittent operation of the patient evacuation system.

5-54. If a withdrawal is made under enemy pressure, the AHS support considerations are quite different. Since time available in this instance is even more critical than the voluntary move, the Role 1 and Role 2 cannot remain in the forward areas. They usually withdraw as a unit to new rear locations, and casualties occurring during the withdrawal are transported to the support areas by their parent units, typically on nonmedical transportation. Again, it is highly desirable that litters be issued to the maneuver element to enable them to evacuate their own casualties without causing increased discomfort to the casualty.

ARMY HEALTH SYSTEM SUPPORT OF DELAYING OPERATIONS

5-55. A *delay* is when a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on enemy forces without becoming decisively engaged (ADP 3-90). Delaying operations occur when forces are insufficient to attack or to defend and when the defensive plan calls for drawing the attacker into an unfavorable situation. The force normally gains time to—

- Reestablish the defense.
- Cover a defending or withdrawing unit.
- Protect a friendly unit's flank.
- Participate in an economy of force effort.

5-56. Delays gain time by forcing the enemy to repeatedly concentrate against successive battle positions. As enemy units begin to deploy for the attack, the delaying force withdraws to new battle positions. The enemy must repeat the same time-consuming deployment at the next position. At the same time, deep attack slows the enemy's advance and prevents the enemy from massing overwhelming combat power against the delaying force.

5-57. The usual maneuver of delay of successive positions employs the major force on delay positions across a broad front. Delaying brigades split their combat power, moving their less-mobile forces directly to the next delay position while a tank-heavy force normally covers the initial displacement and fights a delaying action to the new position. Each brigade maintains a small reserve to conduct limited objective attacks that assist in extricating hard-pressed delaying forces.

5-58. Army Health System support is provided to the major force essentially as discussed for medical support of withdrawal. Because the brigade reserve is likely to be committed to assist a unit subjected to severe enemy pressure, its support should include medical platoon elements of minimum size in addition to normal company combat medics and ambulance support, making the reserve force self-sufficient in Role 1 support. Medical support may require continuous operation of two Role 2s, each in DS of one brigade, to adequately service the wide front.

5-59. The less frequently used tactic of delay on alternate positions, normally employed on a narrow front, provides for leapfrogging major units (brigades) rearward. The foremost brigade delays back to the next succeeding delay position, prepared and occupied by a second brigade. The Role 1 MTF establishes a facility of minimum size and splits for rearward displacement. Ambulance support is developed forward to give as extensive lateral coverage as possible to expedite patient evacuation from units in contact. One Role 2 provides adequate support for the brigade in contact, and the Role 2s leapfrog rearward as the brigades displace. Extra EAB ambulances to support the brigade in contact are deployed both at Role 1 and at the Role 2s to expedite evacuation and assist in moving patients when the element displaces.

ARMY HEALTH SYSTEM SUPPORT OF THE RETIREMENT

5-60. A *retirement* is when a force out of contact moves away from the enemy (ADP 3-90). Because the battalion breaks contact with the enemy and marches in multiple columns directly to the rear, the AHS support requirement is like a movement to contact. The battalion's patient workload is usually light. Augmentation of ambulance assets with organic medical elements of the rear guard may be required, but its treatment capacity should be adequate for emergency procedures needed to prepare the patient for evacuation to the main body. Treatment and evacuation support and marching at the rear of the main body is provided essentially as discussed for medical support of the withdrawal. The prospect of an extended retirement march requires additional ambulance support with these rear elements.

5-61. The Role 2 displaces sufficiently far enough to the rear before the main forces move to preclude having to further displace during the operation. Echelons above brigade ambulances accelerate evacuation of patients from Role 2 prior to the actual displacement. The number of Role 2s to be established at destination depends principally on the type of defense to be employed and the adequacy of the road network.

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Chapter 6

Medical Company (Role 2) Support for the Offense

Offensive combat operations are rapid, violent actions that remain flexible, seek enemy weak spots, and exploit successes promptly. The attack creates a fluid situation, maintains the initiative, and destroys the enemy's defensive coherence. The offense is characterized by rapid movement, deep penetrations, aggressive action, and the ability to sustain momentum regardless of counterfires and countermeasures. This chapter begins with a general discussion of the offense and continues with sections on planning and preparing Role 2 AHS assets to support the offense.

SECTION I – OVERVIEW OF OFFENSIVE OPERATIONS

6-1. An *offensive operation* is an operation to defeat and destroy enemy forces and gain control of terrain, resources, and population centers (ADP 3-0). Offensive operations impose the commander's will on an enemy. The offense is the most direct means of seizing, retaining, and exploiting the initiative to gain a physical and psychological advantage.

6-2. In the offense, the decisive operation is a sudden action directed toward enemy weaknesses that capitalizes on speed, surprise, and shock. If that operation fails to destroy an enemy, operations continue until enemy forces are defeated. The offense compels an enemy to react, creating new or larger weaknesses the attacking force can exploit. For a detailed discussion of the offense, see ADP 3-90.

SECTION II – ARMY HEALTH SYSTEM SUPPORT FOR THE OFFENSE

6-3. All U.S. Army personnel are Soldiers first and must know how to "Shoot, move, and communicate," and Soldiers perform their technical specialty second. Army Medicine personnel must understand the types of maneuver, operational terms, and different types of tasks to be able to speak a common language with combatant commanders. While there are many types of offense operations the movement to contact, the attack, and the offense task of conducting a breach tend to be the highest casualty producing operations.

ARMY HEALTH SYSTEM SUPPORT PLANNING IN THE OFFENSE

6-4. The burden on medical resources increases due to the intensity of offensive operations and the increased distances over which support is required as a force advances. Medical units must correspondingly anticipate large numbers of casualties over a large geographic area. The employment of weapons of mass destruction will greatly increase casualties. Mass casualty situations can exceed the capabilities of organic and DS medical assets. To prevent this from occurring, planners should anticipate this possibility and coordinate with area support medical units for additional support. Additionally, units should plan and rehearse nonstandard CASEVAC procedures. Effective management of MASCAL situations depend on established and rehearsed MASCAL plans and detailed medical planning. Other variables can ensure the success of a unit's MASCAL response plan including—

- Coordination and synchronization of additional medical support and augmentation.
- Prior identification and designation of the projected CCPs and AXPs.
- Quick location and clearance of the injured.
- Effective TCCC.
- Accurate triage, rapid MEDEVAC, and, when necessary due to resource constraints, CASEVAC of the injured to a role of care at the next higher level.

6-5. When developing the AHS support plan to support the offense, the AHS support planner must consider many factors. The forms of maneuver as well as the threat's capabilities influence the character of the patient workload and its time and space distribution. The analysis of this workload determines the allocation of AHS support resources and the location or relocation of Role 1 MTF. For additional information on AHS support planning, refer to ATP 4-02.55.

6-6. The essential considerations of AHS support in offensive operations are:

- As areas of casualty density move forward, the routes of evacuation lengthen, requiring forward displacement of medical treatment and evacuation assets.
- Heaviest patient loads occur during disruption of enemy main defenses, at terrain or tactical barriers, during assaults on final objectives, and during enemy counterattack.
- The major casualty area is the zone of the main attack. Units tasked as the main effort receive priority in the allocation of combat power and related sustainment support.

6-7. Army Health System support for offensive operations must be responsive to several essential characteristics. As operations achieve success, the areas of casualty density move away from the supporting BAS. This causes the routes of MEDEVAC to lengthen. Heaviest patient workloads occur during disruption of the threat's main defenses, at terrain or tactical barriers, during the assault on final objectives, and during threat counterattacks. The accurate prediction of these workloads identified by the AHS support planner is essential for successful MEDEVAC operations.

6-8. As advancing combat formations extend control of the battle area, supporting medical elements can clear the battlefield. This facilitates the acquisition of the battle injured casualties and reduces the vital time elapsed between wounding and treatment. There are two basic problems confronting the supporting medical units and MEDEVAC elements:

- First, contact with the supported units must be maintained.
  - Responsibility for the contact follows the normal AHS support pattern in which higher roles of care evacuate from lower roles of care.
  - Contact is maintained by forward deployed air and ground evacuation resources.
- Second, the mobility of the Role 1 MTF supporting the battalion must be maintained.
  - Prompt MEDEVAC of patients from the Role 1 MTF requires available ambulances to be echeloned well forward from the outset.
  - Air and ground ambulance support beyond the capabilities of the Role 2 is requested from the supporting EAB evacuation assets.
  - Units must also be prepared with a CASEVAC plan with designated vehicles.

6-9. The burden on medical resources increases due to the intensity of offensive actions and the increased distances over which support is required as the force advances. The commander reallocates medical resources as the tactical situation changes. Medical units can anticipate large numbers of casualties in a short period of time due to the capabilities of modern conventional weapons and the employment of weapons of mass destruction. These MASCAL situations can exceed the capabilities of organic and DS medical assets to effectively treat the numbers of casualties being sustained. To prevent this from occurring, planners should anticipate this possibility and coordinate with area support medical units to help absorb the acute rise in battlefield injuries. Careful planning and coordination will ensure the standard of medical care for injured Soldiers is not compromised. Effective management of MASCAL situations is dependent on established and rehearsed MASCAL plans and detailed medical planning. There are several other variables which can ensure the success of a unit's MASCAL response plan. These include, but are not limited to—

- Coordination and synchronization of additional medical support or augmentation, such as MEDEVAC support, forward resuscitative surgical intervention provided by forward surgical teams, and established Class VIII resupply.
- Quickly locating the injured and clearing them from the battlefield.
- Providing effective emergency medical treatment for the injured.
- Accurate triage and rapid MEDEVAC of the injured to MTFs at the next higher role of care.

BASIC CONSIDERATIONS

6-10. The four types of offensive operations are movement to contact, attack, exploitation, and pursuit. Units perform these operations singularly or in combination to impose the commander's will on the enemy. A commander may also conduct offensive operations to deprive the enemy of resources, seize decisive terrain, deceive or divert the enemy, develop intelligence, or hold an enemy in position. This chapter discusses the offensive basics at the corps and division echelons. For additional information on offensive operations, refer to FM 3-0.

6-11. An offensive operation has a key purpose and considerations that Role 2 leaders should plan for. The offensive type, purpose and medical considerations are depicted in table 6-1. For additional information on offensive operations, refer to FM 3-0 and FM 3-90-1.

Table 6-1. Type, purposes, and key medical considerations of offensive operations

Operation type	*Purposes*	*Role 2 key medical considerations*
• Movement to contact. • Attack. • Exploitation. • Pursuit.	• Dislocate, isolate, disrupt, and destroy enemy forces. • Seize key terrain. • Deprive the enemy of resources. • Develop intelligence. • Deceive and divert the enemy. • Create a secure environment for stability tasks.	• All medical functions fully synchronized by medical command and control. • Focus of effort: locate, acquire, treat, stabilize, and evacuate. • TCCC administered by nonmedical individuals (self-aid/buddy aid) and by CLSs. • TCCC procedures by combat medics. • TCCC by physician and PA, at BAS and Role 2 MTF. • Resuscitative (damage control) surgery at collocated FRSD. • Prevention of endemic and epidemic diseases. • Emergency resupply of Class VIII equipment and supplies may be required by CLSs, ambulances, and BASs. • Emergency resupply of Class VIII blood and blood products may be required for Role 2 medical treatment facilities and FRSDs.

LEGEND

BAS	battalion aid station	MTF	medical treatment facility
CLS	combat lifesaver	PA	physician assistant
FRSD	forward resuscitative and surgical detachment	TCCC	tactical combat casualty care

6-12. The type of offensive operation as well as enemy defensive capabilities influence the character of the patient workload and its time and space distribution. These workload factors determine the location of Role 1 medical units and allocation and location of Role 2 medical resources. Basic considerations that influence the use of medical units in combat operations are—

- The commander's plan (the concept of the operation).
- The anticipated patient load, based off the casualty estimate.
- Expected areas of casualty density.
- Medical treatment and evacuation resources available.
- Terrain and road network.
- Weather conditions.
- Expected combat environment (conventional or CBRN).

GENERAL RULES

6-13. The Role 1 medical unit is initially located as far forward in its respective areas as combat operations will allow. This tactic allows maximum use of facilities at the initial location, thus enhancing the overall effectiveness of support. Role 2 assets should be prepared to be OPCON to the Role 1 in accordance with the support plan. Echelons above brigade AHS support assets provide unit support on an area support basis and may be attached to a maneuver brigade.

Patient Acquisition

6-14. The forward movement of the battalion offsets, to a degree, the difficulties for AHS support inherent in the patient workload that usually reaches its peak in offensive operations. As advancing combat elements extend control of the battle area forward, supporting medical elements take over patients thus facilitating acquisition of injured casualties and reducing the vital time that elapses between wounding and treatment.

Proximity and Mobility

6-15. Establishment of the BAS as far forward as possible is critical to maintain proximity with the maneuver force during an offensive operation. Forward echeloning of Role 2 MEDEVAC assets to the Role 1 prior to the beginning of the operation assists with maintaining proximity and increases the Role 1 medical unit's mobility. As in any ground combat operation involving significant movement of forces, AHS units struggle to maintain these AHS principles. Mobility is further maintained primarily by means of the MEDEVAC elements operating within and between the roles of medical care by clearing patients from the lower role of care, thus allowing the lower role of care to move forward and maintain proximity with supported units.

Casualty Collection Points

6-16. In fast-moving situations, CCPs are planned along the axis of advance or evacuation routes. Forward of the BAS, combat medics and combat troops place patients at CCPs, which facilitates acquisition by supporting ambulance teams and reduces evacuation time. When used by the medical platoon, CCPs help preserve mobility, preclude transporting patients forward, and reduce evacuation time and distance to the rear.

6-17. The requirement to detach some of the unit's resources to continue patient treatment may preclude the use of a CCP. The CCPs concentrate patients along evacuation routes. This increases the efficiency of each ambulance mission to the MTF. The CCPs also provide those units lacking organic medical support a forward area for patient disposition in high mobility situations where medical support on an area basis may not be feasible.

Prescribed Loads

6-18. The Role 2 medical asset acquires the maximum permissible prescribed loads of medical supplies (Class VIII) prior to the start of the attack. Initially, the medical supply section distributes medical supplies to all supported customers. From there, initial and replenishment supplies move forward via ambulances in response to verbal requests or informal requisitions for consumable items by supported treatment elements or through property exchange of nonconsumables used on patients. Effective operation of both these medical supply functions within the unit is vital to the medical treatment function.

Detainees

6-19. Sick and injured detainees are treated and evacuated through normal channels insofar as is possible, but they are physically segregated from operating forces and allied patients. Guards for these prisoners are provided in accordance with the unit tactical SOP and are not from AHS support personnel resources. For more information on detainee operations, refer to FM 3-63 and ATP 4-02.46.

Civilians

6-20. The medical company may be required to furnish temporary emergency medical support to indigenous or displaced persons as a humanitarian act and to prevent their interference with combat operations. The

tactical commander decides the extent of this support; however, assistance is normally confined to emergency and advanced medical treatment. The theater medical rules of eligibility will specify who is eligible for what type(s) of treatment under which conditions. Medical company leaders and providers should become familiar with theater medical rules of eligibility during decision-making and mission analysis activities.

ARMY HEALTH SYSTEM SUPPORT TO MOVEMENT TO CONTACT

6-21. *Movement to contact* is a type of offensive operation designed to develop the situation and to establish or regain contact (ADP 3-90). Medical units or elements are deployed according to the overall medical plan for support of the attack prior to beginning the advance. Prior deployment of medical resources with parent and supported units permits uninterrupted and effective AHS support of forces advancing to contact in multiple columns and across a wide front, providing a smooth transition to support the initial phase of the offensive maneuver.

6-22. Medical evacuation support in movement to contact is integrated into the tactical plan. Prior deployment of the DS ground ambulances with the maneuver battalion's organic medical platoons permits uninterrupted and effective MEDEVAC support from the Role 1 to the Role 2 located in the support areas. Movement to contact operations are executed when there is little or no threat information. The Role 1 and Role 2 medical units in support of these operations must maintain their flexibility and be prepared to adjust AHS support once contact is established.

6-23. Normally, a covering force is provided from brigade resources. Consequently, the method of organizing unit-level AHS support discussed previously applies. When the force is battalion size or larger, its medical resources usually are reinforced by elements of the Role 2. The reinforcement of Role 1 from Role 2 assets may require reinforcement of the BCT Role 2 from EAB medical assets. The maneuver battalion's medical platoon maximizes the use of templated CCPs to increase effectiveness of medical support. Brigade ambulances evacuate covering force patients directly to the Role 2 MTF; however, due to patient estimates, EAB ambulances may have to support the Role 1 to Role 2 patient evacuation. The supporting FSMP is utilized whenever feasible and appropriate to prevent excessive, early commitment of division ambulances attached to the covering force.

6-24. Advance, flank, and rear guards normally receive AHS support through the attachment of ambulance teams depending on the type of transport provided the supported forces. These teams evacuate patients to templated CCPs along a main axis of advance or to the nearest element (normally with a column of the main body).

6-25. To support a movement to contact, the Role 1 MTF splits into two treatment teams, alpha and bravo, that should execute the tailgate medical support technique. With the addition of the Role 2 ambulance squad, the Role 1 treatment teams should each get one DS ambulance. This now provides the Role 1 MTF with a ground MEDEVAC capability. With the addition of the DS ambulance teams, the Role 1 teams are now identified as medical MEDSEC-A and MEDSEC-B. Due to the increased probability of the maneuver force encountering a threat and the potential to receive patients, splitting the BAS with the addition of the DS ambulances is recommended when planning for a movement to contact mission.

6-26. When a relief in place or passage of lines precedes the attack, extensive liaison with medical elements of the unit in place is required to ensure continuous medical support. Generally, in a passage of lines, the participating battalion surgeons arrange for the units in place to accept the initial patients of the attacking unit. This allows the treatment elements of the latter to maintain mobility and to initially locate farther forward to maintain proximity to the supported maneuver battalion. The ensuing combat mission of the passed unit dictates the extent to which this cross support can be provided. Medical elements of the battalion relieved in place provide the relieving battalion invaluable information about such matters as patient evacuation routes and potential sites for the Role 1, thus saving many hours of medical reconnaissance. Additional coordination might include radio frequencies and call signs, evacuation procedures, and SOPs.

ARMY HEALTH SYSTEM SUPPORT OF THE ATTACK

6-27. An *attack* is a type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both (ADP 3-90). Attacks incorporate coordinated movement supported by fires. They may be

either shaping or decisive operations. Attacks may be characterized as hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing. However, based on mission variable analysis, the commander may decide to conduct an attack using only fires. An attack differs from a movement to contact because in an attack the commander knows part of the enemy's disposition. This knowledge enables the commander to better synchronize the attack and employ combat power more effectively in an attack than in a movement to contact.

6-28. Subordinate forms of the attack have special purposes and include the ambush, counterattack, demonstration, feint, raid, and spoiling attack. The commander's intent and the mission variables of METT-TC (I) determine which of these forms of attack is employed. The commander can conduct each of these forms of attack, except for a raid, as either a hasty or a deliberate operation.

DELIBERATE ATTACK

6-29. The deliberate attack is based on a detailed knowledge of the threat disposition and likely actions. The battalion's actions in contact will be more predictable than the fluid situation found in the movement to contact, exploitation, or pursuit. Specific terrain and routes and avenues of approach can be selected. At the least, units can conduct a map reconnaissance of their planned locations. While there may be AHS support requirements during the approach, the assault on the objective will produce the greatest number of casualties. Some of the AHS support considerations for the deliberate attack include—

- Higher percentage of casualties.
- Casualties will be more concentrated in time and space.
- Treatment teams can move to the objective once it is secured instead of evacuating patients from the objective to the treatment teams.
- Use of air ambulance to overcome some obstacles may be required.
- Higher likelihood of wounded detainees.

RECONNAISSANCE IN FORCE

6-30. The *reconnaissance in force* is a type of reconnaissance operation designed to discover or test the enemy's strength, dispositions, and reactions or to obtain other information (ADP 3-90). The brigade usually probes with multiple maneuver units of limited size, retaining sufficient reserves to quickly exploit discovered enemy weaknesses. Army Health System support operations closely follow those operations discussed for the movement to contact.

6-31. Ambulance assets are positioned well forward at both unit and brigade levels to ensure prompt acquisition and evacuation of patients. Whenever possible, this positioning takes place during the hours of darkness, and the ambulances may be camouflaged. The positioning of ambulances may be an indication to the enemy that an attack is imminent due to the forward placement of the medical support.

6-32. The AHS assets are not established until a significant patient workload develops. Patients received at Role 1s of reconnoitering units are evacuated to the Role 2 MTF as early as practicable or are carried forward with the force until a suitable opportunity for evacuation presents itself. A delay in evacuation may cause AHS elements to provide prolonged care for those patients awaiting evacuation. Maximum possible use of air ambulances may be made to support the reconnoitering force due to extended distances covered and to overcome potentially insecure ground evacuation routes.

ARMY HEALTH SYSTEM SUPPORT OF EXPLOITATION AND PURSUIT

6-33. An *exploitation* is a type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth (ADP 3-90). Exploitation is the following up of gains to take full advantage of success in battle. It is a phase of the offensive that destroys the enemy's ability to reconstitute an organized defense or to withdraw in good order in the face of threatened disaster.

6-34. A *pursuit* is a type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it (ADP 3-90). The pursuit may follow the exploitation. The pursuit

differs from the exploitation in that its primary function is to complete the destruction of the enemy force that is in the process of disengagement.

6-35. Combat units involved in exploitation and pursuit employ similar tactics as in envelopments and turning movements, AHS. Medical evacuation support of exploitation and pursuit operations resemble those discussed for the envelopment. Since exploitation and pursuit operations can rarely be planned in detail, evacuation operations must adhere to tactical SOP and innovative C2. Exploitation and pursuit are often characterized by—

- Fewer casualties.
- Decentralized operations.
- Unsecured ground evacuation routes.
- Exceptionally long distances for evacuation.
- Increased reliance on convoys and air ambulances.
- More difficult communications.

6-36. Control of supporting EAB medical units is frequently decentralized at brigade level in these operations. Unsecure ground routes normally force reliance on evacuation by intermittent ground ambulance convoy or by air ambulances. Since exploitation and pursuit can rarely be planned in detail, medical operations adhere primarily to existing SOPs with continuing adjustments by the medical platoon leader, BSB support operations medical staff, and the brigade surgeon. Successful improvisation of medical support to accommodate the operation requires effective communication, uninterrupted contact with the supporting medical unit, and synchronization between the Role 1, Role 2, SPO-MED, and the brigade surgeon section (BSS).

ARMY HEALTH SYSTEM SUPPORT TO A BREACH

6-37. A *breach* is a tactical mission task in which the unit employs all available means to break through or establish a passage through an enemy defense, obstacle, minefield, or fortification (FM 3-90-1). Of all the tactical mission tasks, breaching normally produces the heaviest medical workload. Patient collection starts slowly but will become more rapid as the attack progresses. Likewise, evacuation routes initially lengthen relatively slowly.

6-38. Obstacle reduction is usually preceded by heavy suppressive artillery fires, which may evoke a heavy return fire from the enemy. Heavy fire from the enemy may modify the basic requirement of placing the Role 1 MTF and ambulances as far forward as possible.

6-39. The maneuver battalion Role 1 medical asset is initially with the maneuver battalion combat trains CP. The battalion combat trains CP should move within 4 kilometers (2.4 miles) but no more than 10 kilometers (6.2 miles) behind the lead elements of the battalion. The threat of fires could modify the decision to place evacuation assets as far forward as possible. The brigade AXP with a treatment team from the Role 2 should be located one-third the distance from the rear of the Role 1 (for example, if Role 1 is 9 kilometers (5.6 miles) forward of the Role 2, the AXP should be 3 kilometers (1.9 miles) to the rear of the Role 1) and be integrated into the battalion scheme of maneuver. Without the AXP, the battalion medical elements will lose their ability to move as patients collect at the Role 1 MTF.

6-40. During breach operations, plans must be in place to clearing casualties off the battlefield since increased number of casualties should be anticipated. Each company team requires an armored ambulance for MEDEVAC. If the engineer company assigned to an ABCT is the breaching force, it must have one armored ambulance in DS.

6-41. Figure 6-1 on page 6-8 and figure 6-2 on page 6-9 depict the Role 1 MTF conducting bounding medical coverage in support of a breaching operation. The technique of medically supporting the breach may also be applied while conducting a wet gap grossing or bounding medical support. For additional information on medical coverage techniques, refer to ATP 4-02.4.

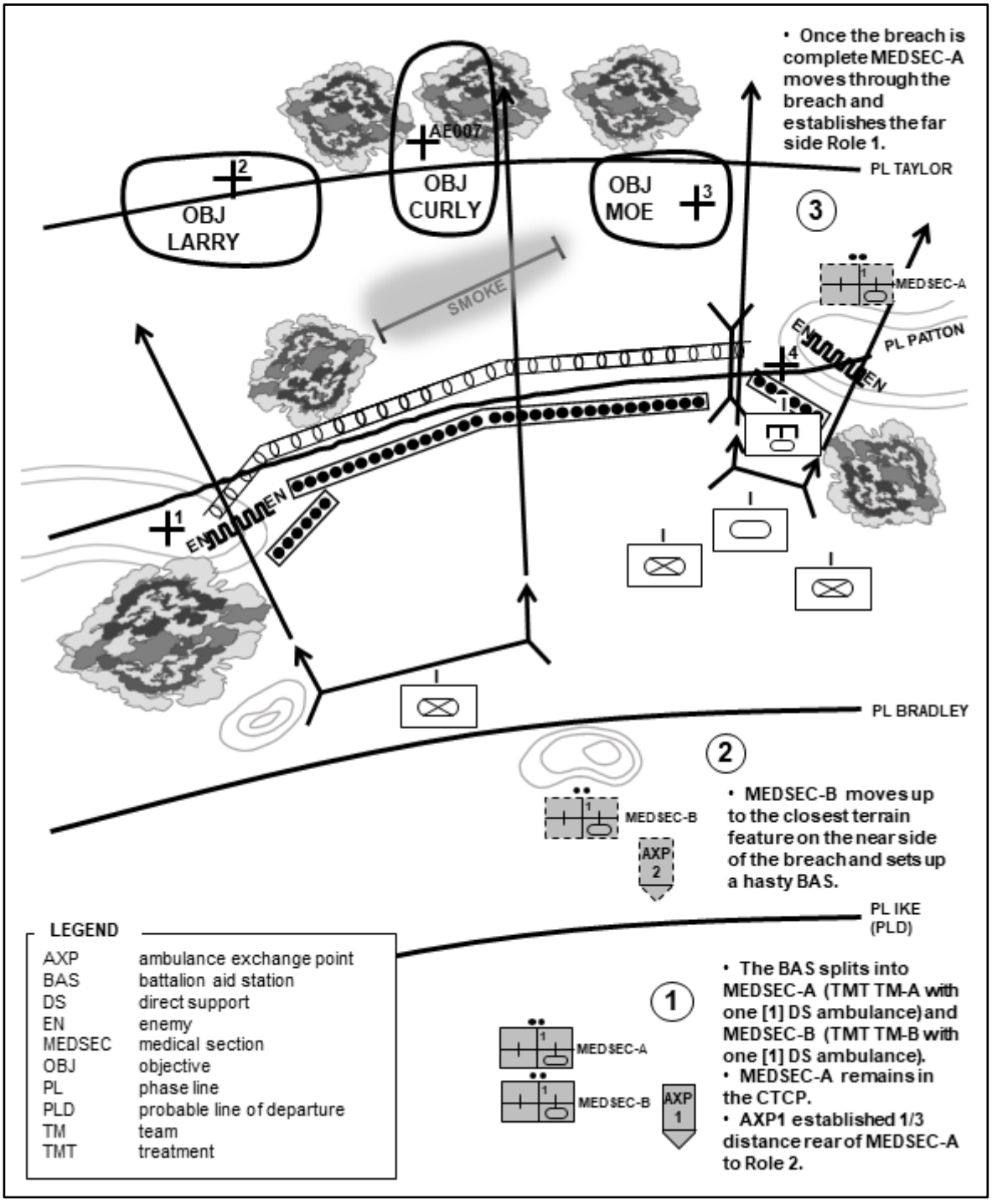

Figure 6-1. Army Health System support to a breach (steps 1 through 3)

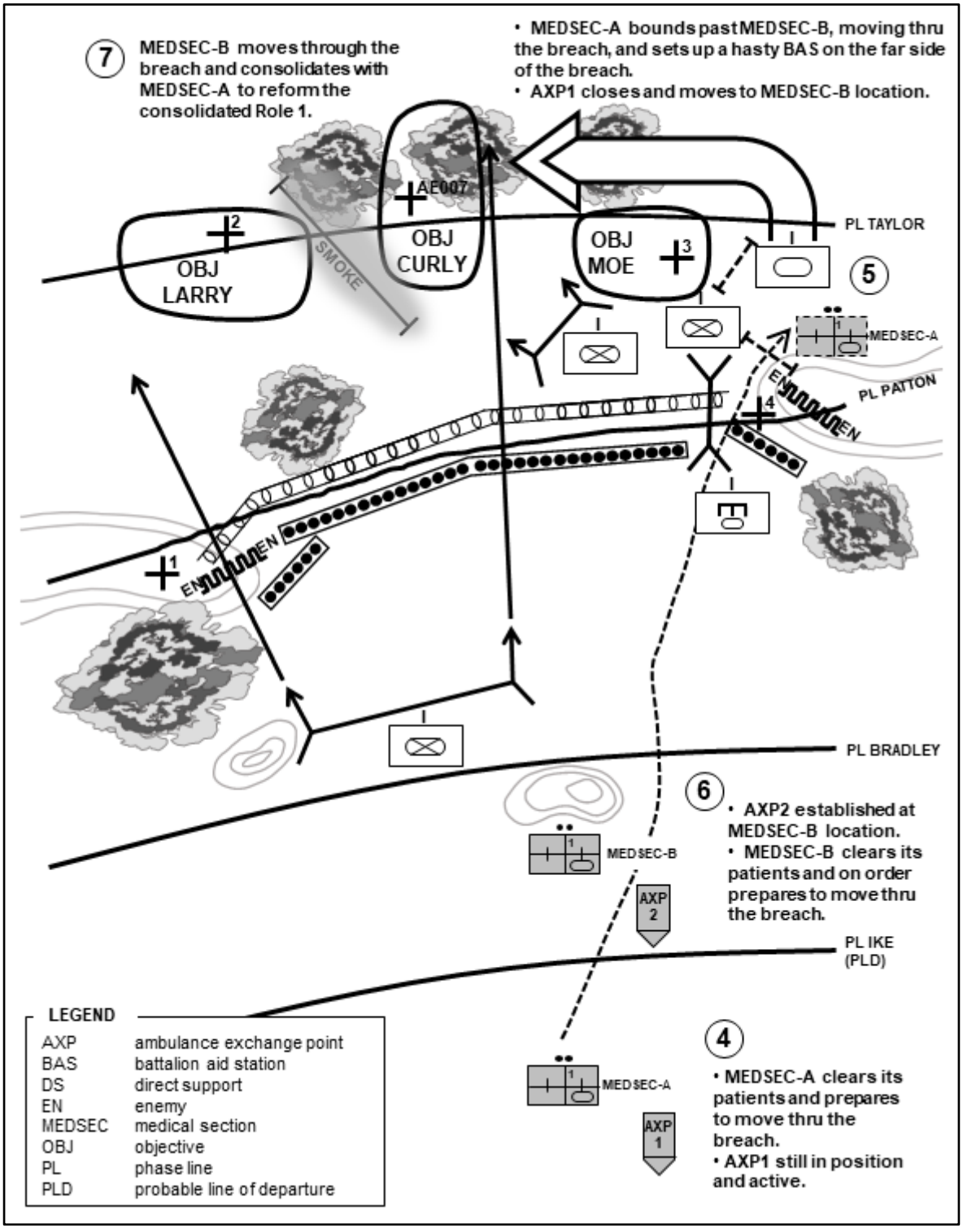

Figure 6-2. Army Health System support to a breach (steps 4 through 7)

6-42. The Role 1 MTF splits into two treatment teams, alpha and bravo. With the addition of the Role 2 ambulance squad, the treatment teams get one ambulance team each and now have a ground MEDEVAC capability. The treatment teams title is now MEDSEC-A and MEDSEC-B (see step 1 on figure 6-1 on page 6-8). The AXP will stay in the previously identified location. Per the OPORD, the MEDSECs pre-position with the battalion prior to movement.

6-43. Medical Section B moves forward and behind the breaching unit and establishes the near side Role 1 medical support (see step 2 on figure 6-1 on page 6-8). Medical Section A follows the battalion formation. Once the breach is completed, MEDSEC-A moves through the breach to the far side and establishes the far side Role 1 medical support (see step 3 on figure 6-1 on page 6-8 and step 4 on figure 6-2 on page 6-9).

6-44. When MEDSEC-A establishes the far side Role 1 medical support (see step 5 on figure 6-2 on page 6-9), the AXP moves forward to join MEDSEC-B to facilitate the clearing of patients (see step 6 on figure 6-2 on page 6-9). When the AXP is established at near side location, MEDSEC-B will clear patients and continue mission to consolidate with MEDSEC-A on the far side of the breach or bound forward to maintain proximity with the main effort (see step 7 on figure 6-2 on page 6-9). The trigger to push a MEDSEC or the entire BAS through the point of the breach and where they will go must be identified in the OPORD.

CAUTION

The synchronization and movement of AHS support assets during breaching operations must be rehearsed to ensure the AHS support plan is understood and executed according to the OPORD.

6-45. Patient evacuation may be slow and difficult due to a bottleneck at the point of breach, damage to roads, or the inaccessibility of patients due to heavy combat conditions. The use of available Army aviation assets will expedite movement of patients. A tendency to establish large treatment facilities to accommodate a heavy initial patient workload must be tempered by the possible assault of enemy defensive positions and rapid transition to exploitation and pursuit operations.

6-46. Some combat units of the battalion may be required to remain near the point of breach to hold or widen the breach lanes through obstacles while the bulk of battalion or brigade forces exploit or pursue. Appropriate supporting medical elements must be placed near each end of the breach lane because evacuation should not occur across an avenue of heavy combat traffic. In addition to there being extremely heavy traffic through the lane, the area is very likely a target for enemy attack by conventional, nuclear, or chemical weapons. Medical elements should remain clear of the entry and exit lane for their own protection and for the protection of their patients. While conducting breaching operation, MEDEVAC support problems multiply when some combat units remain near the point of breach.

6-47. The Role 2 medical unit should be ready to reinforce the breach force medical elements. Medical companies and EAB medical elements placed in support of these combat units should be as limited as feasible, and every effort must be made to keep the Role 2 MTF free of patients by early transfer to supporting EAB medical units to enhance mobility. The Role 2 medical unit must be prepared to displace forward rapidly as soon as supported combat units are relieved of the secondary attack mission and close up to battalion pursuit units.

SECTION III – ARMY HEALTH SYSTEM SUPPORT OF MANEUVER

6-48. Forms of maneuver are distinct tactical combinations of fire and movement with a unique set of doctrinal characteristics that differ primarily in the relationship between the maneuvering force and enemy. There are six forms of maneuver: envelopment, turning movement, frontal attack, penetration, infiltration, and flank attack. Combined arms organizations accomplish their mission by synchronizing the contributions of all warfighting functions to execute these forms of maneuver.

6-49. For AHS support assets to maintain proximity, they must understand and visualize how the combat unit is maneuvering. There may not be specific AHS support requirements or considerations to a specific

form of maneuver but how the supported unit is moving should be considered when establishing the AHS support plan.

ARMY HEALTH SYSTEM SUPPORT TO ENVELOPMENT

6-50. An *envelopment* is a form of maneuver in which an attacking force seeks to avoid the principal enemy defenses by seizing objectives behind those defenses that allow the targeted enemy force to be destroyed in their current positions (FM 3-90-1). In the envelopment, the main or enveloping attack passes around or over the threat's principal defensive positions. The purpose is to seize objectives that cut the enemy's escape routes and subject the enemy to destruction in place from flank to rear.

6-51. Because rapid movement and light combat are anticipated in early operations, AHS support tactics continue much the same as in the movement to contact. Since the envelopment maneuver involves no direct breach of the threat's principal defensive positions, the MEDEVAC system is not confronted with a heavy workload in the opening phase. However, ambulances are positioned well forward in all roles of medical care to quickly evacuate the patients generated by suddenly occurring contact.

6-52. The Role 1 moves with the battalion formation and assists with clearing the battlefield to reduce delays in treatment. After triage and treatment, the patients are evacuated to the Role 2 or Role 3 in the rear by supporting ground ambulances. Nonmedical vehicles could be pressed into emergency use for this purpose. Further, the commander should take advantage of friendly fires and suppression of threat air defenses to call for prearranged air ambulance support missions, or emergency use of medium-lift helicopter backhaul capabilities. With the potential of prolonged care, AHS assets should expect an increase in mortality from wounds. Delayed evacuation, which causes medical units to provide prolonged care, may require more n-hand Class VIII than what the unit may normally carry. When planning for prolonged care some considerations are to—

- Have additional Class VIII on hand.
- Ensure the patient holding and evacuation platoon is prepared to hold patients for longer than the unit is designed to.
- Request augmentation from EAB medical resources.

6-53. Treatment teams stay abreast of the combat situation through command communication channels and reports of returning ambulance personnel. They determine the appropriate size and time to establish treatment teams based on the tactical situation. The Role 1 medical unit moves near the rear of their respective command roles to maintain proximity of their supported unit which reduces the delay in treatment and expedites patient evacuation. After required treatment, if evacuation routes are open, the patient is transported to the higher role of care by supporting ambulances.

6-54. When the isolated nature of the envelopment maneuver precludes prompt evacuation, the patients are carried forward with the treatment element to its next site. This must be planned for in detail and is an extreme measure when no other option is feasible. When patients must be carried forward with the enveloping forces, AHS support commanders use halts at assembly areas and phase lines to arrange combat protection for ground ambulance convoys through unsecured areas. To preclude the overloading of ambulances, less critically ill or injured patients whose immediate treatment is complete may be transferred to general-purpose vehicles of the command for completion of the movement forward.

6-55. Halts and phase lines may be used to initiate prearranged air ambulance support missions to preserve the mobility of the forces' medical elements. Appropriate general support EAB medical units may be attached to the brigade for the duration of the envelopment operation. Normal medical supply and maintenance procedures may be modified by increasing the use of air ambulances to move medical supplies forward, to evacuate damaged equipment over the extended distances, and to circumvent unsecured ground routes.

6-56. Medical units supporting an envelopment must not be immobilized by detainees or nonmilitary patient workloads. If such workloads are anticipated, appropriate reinforcement by medical resources should be requested and provided in advance by EAB AHS support forces. Commitment of Role 2 or EAB in support of the brigade to this mission should be limited to the extent of organizing emergency self-support in the affected groups.

ARMY HEALTH SYSTEM SUPPORT TO TURNING MOVEMENT

6-57. A *turning movement* is a form of maneuver in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives behind the enemy's current positions thereby causing the enemy force to move out of their current positions or divert major forces to meet the threat (FM 3-90-1). The turning movement is a variant to the envelopment in which the attacker attempts to avoid the defense entirely. Rather, the attacker seeks to secure key terrain deep in the threat's rear and along their line of communication. Faced with a major threat to their rear, the enemy is "turned" out of their defensive positions and forced to attack rearward at a disadvantage. Medical evacuation support to the turning movement is provided in the same manner as to the envelopment. As the operation is conducted in the enemy's support area, line of communication and evacuation routes could become unsecure resulting in delays in resupply and evacuation.

ARMY HEALTH SYSTEM SUPPORT TO FRONTAL ATTACK

6-58. A *frontal attack* is a form of maneuver in which an attacking force seeks to destroy a weaker enemy force or fix a larger enemy force in place over a broad front (FM 3-90-1). At the tactical level, an attacking force can use a frontal attack to rapidly overrun a weak enemy force. A commander uses a frontal attack as a shaping operation in conjunction with other forms of maneuver. A commander employs a frontal attack to—

- Clear enemy security forces.
- Overwhelm a shattered enemy during an exploitation or pursuit.
- Fix enemy forces in place as part of a shaping operation.
- Conduct a reconnaissance in force.

6-59. The unit conducting a frontal attack advance on a broad front, normally with its subordinate ground maneuver elements abreast (except for the reserve). This clears the enemy's security area of enemy security forces and intelligence, reconnaissance, surveillance, and target acquisition assets while advancing the friendly force into the enemy's main defenses. The AHS assets must be prepared to execute extended medical support operations during the frontal attack. This will require Role 1 AHS to execute split operations and may require augmentation from the Role 2 medical treatment squad and additional evacuation capabilities to be OPCON to the maneuver element.

ARMY HEALTH SYSTEM SUPPORT TO PENETRATION

6-60. A *penetration* is a form of maneuver in which an attacking force seeks to rupture enemy defenses on a narrow front to disrupt the defensive system (FM 3-90-1). The three main purposes of a penetration are—

- To breach the enemy's main defensive position.
- To widen the gap created to secure the flanks by enveloping one or both newly exposed flanks.
- To seize the objective with its associated subsequent exploitation.

6-61. The success of the penetration depends primarily on a coordinated and synchronized plan—violently executed at a high tempo—against comparatively weak enemy defenses. The AHS support plans should address the high tempo of the operation by planning for the rapid relocation of Role 1 and Role 2 assets to maintain conformity to the maneuver plan and proximity with supported units.

ARMY HEALTH SYSTEM SUPPORT TO INFILTRATION

6-62. An *infiltration* is a form of maneuver in which an attacking force conducts undetected movement through or into an area occupied by enemy forces to occupy a position of advantage in the enemy rear while exposing only small elements to enemy defensive fires (FM 3-90-1). The maneuver force can attack after infiltration or use it as a means of obtaining intelligence and harassing the enemy. Though it is not restricted to small units or dismounted actions, the maneuver unit employs these techniques with a portion of its units in conjunction with offensive operations conducted by the remainder of its units.

6-63. Medical support of infiltration is restricted by the number of medical devices, supplies, and transportation that can be introduced into the attack area. Deployment of Role 1 treatment teams without their organic transportation should be attempted. All their organic vehicles should accompany elements of unit-level medical support, but ambulances receive priority for deployment. It may be feasible to manually carry enough Role 1 equipment into the attack area to provide TCCC, but mobility is then virtually nonexistent. When the element is committed without its ambulances, patients are evacuated to the treatment team exclusively by aid and litter teams, requiring reinforcement of the Role 1 by Role 2 medical personnel or improvisation of litter teams using combat troops if approved by the combatant commander. Litter bearers, depending on distances and degree of secrecy required may also provide patient evacuation from the Role 1 and medical resupply to the force.

6-64. While conducting infiltration, noise, light, and litter discipline are critical as the enemy may not have noticed DNBI casualties. However, if the casualty is a battle injury, the enemy has already detected that element. Once the enemy has detected and engaged the force causing additional casualties, the maximum allowable use of standard and nonstandard evacuation platforms should be used. This will increase lift capabilities and save time and Soldiers' lives.

ARMY HEALTH SYSTEM SUPPORT TO FLANK ATTACK

6-65. A *flank attack* is a form of offensive maneuver directed at the flank of an enemy (FM 3-90-1). A flanking attack is like an envelopment but generally conducted on a shallower axis. It is designed to defeat the enemy force while minimizing the effect of the enemy's frontally oriented combat power. Flanking attacks are normally conducted with the main effort directed at the flank of the enemy. Usually, a supporting effort engages the enemy's front by fire and maneuver while the main effort maneuvers to attack the enemy's flank. This supporting effort diverts the enemy's attention from the threatened flank. It is often used for a hasty attack or meeting engagement where speed and simplicity are paramount to maintaining battle tempo and, ultimately, the initiative.

6-66. The primary difference between a flank attack and an envelopment is one of depth. A flank attack is an envelopment delivered squarely on the enemy's flank. Conversely, an envelopment is an attack delivered beyond the enemy's flank and into the enemy's support areas but short of the depth associated with a turning movement.

6-67. Just as there is a relationship between unit size and the ability of a friendly force to execute a turning movement instead of an envelopment, this relationship extends downward between an envelopment and a flank attack. Corps and divisions are the most likely echelons to conduct turning movements. Divisions and BCTs are the echelons most likely to conduct envelopments—single or double. Smaller-sized tactical units, such as maneuver battalions, companies, and platoons, are more likely to conduct flank attacks than larger tactical units. This is largely a result of troop-to-space ratios and sustainment and mission command constraints.

6-68. For these reasons, the organization of forces, control measures, and conduct—planning, preparation, execution, and assessment—considerations associated with a flank attack are similar to those addressed in the envelopment discussion in paragraphs 6-50 to 6-56. The primary difference between these forms of maneuver is which portion of the enemy position is attacked.

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Chapter 7

Organization and Functions of the Division and Brigade

The division is the Army's unit of action and the primary formation for decisive action against threats with peer capabilities during LSCO. This chapter discusses the organization and function of a division and the organization and functions of BCTs that support a division.

SECTION I – ORGANIZATION AND FUNCTIONS OF THE DIVISION

7-1. A *division* is an echelon of command and tactical formation that employs BCTs, multifunctional brigades, and functional brigades to achieve objectives on land (ADP 3-90). The division headquarters commands or is supported by a varying number of subordinate BCTs and multifunctional and functional brigades. The command relationship depends on the division headquarters assigned role and the mission variables of METT-TC (I). A division commander usually directs the operations of between two and five BCTs plus a tailored set of attached or supporting multifunctional brigades.

7-2. Medical units providing area support are assigned or attached to a TMC. During unusual circumstances, such as during the conduct of a pursuit, they may be placed in a formal command relationship, such as attached, OPCON, or tactical control to the division headquarters when the mission variables of METT-TC (I) make a command relationship more practical and effective. During planning, the command or support relationship should be evaluated to determine the type of relationship that ensures the medical support plan and execution is optimally integrated with the maneuver plan and supported units. For detailed information on the division operations, refer to ATP 3-91.

7-3. In all divisions, Role 2 medical care is provided by medical companies. These medical companies are assigned to one of the brigades identified above. Depending on the assignment, the medical company may be referred to as an MCAS, a BSMC, or a MDMC. In addition to Role 2, all medical companies provide Role 1 medical care to units without organic AHS resources and may augment Role 1 MTFs organic to the supported units.

Note. The unit nomenclature area support medical company (ASMC) was replaced with MCAS during an organization force design update several years ago.

7-4. The AHS support includes all mission support services performed, provided, or arranged by Army Medicine to support FHP and HSS mission requirements for the Army and, as directed, for joint, intergovernmental agencies, and multinational forces. The TMC directs all theater army medical elements within the supported geographic combatant commander's AOR in a manner like what the theater sustainment command does for logistics support. The theater army surgeon provides policy and technical guidance, through the staff and orders process, to the medical command and all Army medical units in the AOR. For more information on the theater sustainment command, refer to ATP 4-94.

7-5. The TMC develops plans, procedures, and programs for medical support in the theater army. This includes all ten medical functions. The TMC headquarters supports the joint force surgeon's joint patient movement requirements center according to lead Service directives. It provides staff planning, supervision, training, and administrative support of subordinate MEDBDE (SPT)s engaged in operational-level medical support.

7-6. A TMC has one or more MEDBDE (SPT)s. These MEDBDE (SPT)s contain a mix of Role 3 MTFs and MMBs tailored according to requirements. A MEDBDE (SPT) supports the division. The TMC

maintains a technical channel with designated medical functions executed by its MEDBDE (SPT). The division surgeon must ensure the division's current and future operations and plans are coordinated with the TMC and the supporting MEDBDE (SPT).

7-7. Division AHS support planning involves the division's staff and the division's projected supporting MEDBDE (SPT) and next higher echelon Army or joint surgeon's staff section. This coordination focuses on how the medical command's plans impact the provision of AHS support within the division. A series of planning conferences, coordination meetings, and rehearsals are required to tailor an AHS support plan to sustain the division's anticipated operations. For additional information AHS support planning, see FM 4-02.

SECTION II – ORGANIZATION AND FUNCTIONS OF BRIGADE COMBAT TEAMS

7-8. The division's capability to conduct decisive action depends on the mix of its assigned or attached BCTs and functional and multifunctional brigades. Brigade combat teams maneuver against, close with, and destroy the enemy. Brigade combat teams make permanent the otherwise temporary effects of other joint capabilities by seizing and occupying decisive terrain, exerting constant pressure, and breaking the enemy's will to fight. They are the principal ground-maneuver unit of the division.

7-9. Three standard BCT designs make up the ground maneuver power of the division: armored, infantry, and Stryker. These BCTs have organic combined arms capabilities, including battalion-sized maneuver, field artillery, reconnaissance, and sustainment units. Only the three standard BCTs will be discussed in this publication. For more information on these formations and on other brigade formations, refer to ATP 3-91 and FM 3-96.

7-10. Medical units are also organic to the BCTs. Maneuver within the division capitalizes on integrated joint capabilities to expand mutual support across expanded areas of operations and enables BCTs to conduct operations within contiguous or noncontiguous AO.

7-11. The division assigns an AO and missions to the BCTs. The division commander uses mission orders, which contain a clear commander's intent and concept of operations, to allow BCTs to accomplish tasks with minimum need for detailed oversight from the division's CP. The BCT staff is designed to conduct decisive action. That does not mean the BCT is ideally structured for every task or mission it can receive. Each BCT will normally be task-organized in some fashion for its missions. Attached BCTs may require task organization changes because they may not have all of the capabilities required for a situation. For example, BCTs do not have organic air and missile defense capabilities beyond small arms and may not have enough bridging assets.

ARMORED BRIGADE COMBAT TEAM

7-12. The core mission of the ABCT is to disrupt or destroy enemy military forces, control land areas, including populations and resources, and be prepared to conduct combat operations to protect U.S. national interests. The ABCT commander exercises C2 and directs the operation of the brigade and attached units while conducting decisive action throughout the depth of the brigade's AO.

7-13. The ABCT's operational capabilities include—

- Significantly greater firepower, tactical mobility, and protection compared to an IBCT or SBCT.
- Rapid tactical movement, envelopment, and penetrations through speed and shock effect.
- Ability to conduct decisive action.
- Ability to conduct screen, guard, and cover missions. The ABCT will require augmentation to conduct a cover mission.
- Combined arms integration down to battalion level.
- Enhanced situational awareness, including providing the common operational picture down to the individual fighting vehicle.
- Enhanced linkages to joint forces, fire support, and the intelligence enterprise.
- Robust organic sustainment.

7-14. The ABCT's operational limitations include—

- Not rapidly deployable to a theater or AO unless deployed to pre-positioned equipment sites.
- Significant strategic airlift and sealift required to deploy and sustain.
- Reduced effectiveness in close terrain, such as forests and urban areas, due to close engagement ranges and main gun elevation restrictions, when compared the brigade's employment in more open terrain.
- Restricted mobility in highly mountainous terrain or dense forests.
- Vulnerability to mines and antitank weapons.
- Significant requirement for consumable supplies, particularly Class III, V, and IX.
- No organic military police capability.
- Limited organic gap crossing capability, extremely limited general engineering capability, and limited engineer staff expertise.

INFANTRY BRIGADE COMBAT TEAM

7-15. The IBCT's mission is to fight and win engagements and battles to support operational and strategic objectives. It can perform complementary missions to ABCTs and SBCTs. The IBCT missions consist of reducing fortified areas, infiltrating, and seizing objectives in the enemy's rear, eliminating enemy force remnants in restricted terrain, securing key facilities and activities, and conducting stability tasks in the wake of maneuvering forces.

7-16. The IBCT is easily configured for area defense and as the fixing force component of a mobile defense. The IBCT's lack of heavy combat vehicles reduces its logistic requirements. This gives higher commanders greater flexibility when adapting various transportation modes to move or maneuver the IBCT. Airborne IBCTs conduct airborne assault-specific missions during forcible entry operations. All IBCTs can conduct air assault operations.

7-17. The IBCT conducts offensive operations against all types of enemy forces in complex terrain. The IBCT's design allows it to defeat the enemy in mountain, wooded, and urban environments. This makes IBCTs better suited for operations in restrictive and severely restrictive terrain than the other two types of BCTs.

7-18. The IBCT's operational capabilities include—

- Strategic and operational deployability.
- Forcible entry operations, including airborne (using airborne IBCTs), air assault, and amphibious operations. For more information on the conduct of airborne and air assault operations, refer to FM 3-99. For more information on amphibious operations, refer to JP 3-02.
- Ability to conduct screen, guard, and cover missions against similarly equipped enemy forces. The IBCT requires augmentation to conduct a cover mission.
- Transportable by Army combat aviation brigades.
- Enhanced situational awareness, including a common operational picture down to company commander level (and platoon leaders assigned wheeled vehicles).
- Sustainment from forward support companies of the BSB for the infantry, engineer and artillery battalions, and the cavalry squadron.
- Reduced resupply of Class III, V, and IX requirements than ABCT and SBCT.
- Increased maneuverability in restrictive terrain compared to the ABCT and SBCT.

7-19. The IBCT's operational limitations include—

- Reduced organic firepower, tactical mobility, or protection compared to the ABCT and SBCT.
- No organic gap crossing capability.
- Limited combat engineer capability.
- No organic military police capability.
- Limited transportation to conduct personnel movement; battalions move by foot or rely on external transportation capabilities.

STRYKER BRIGADE COMBAT TEAM

7-20. The SBCT provides operational commanders with increased operational and tactical flexibility. This flexibility is enabled by the SBCT's rapid deployment capability and its significantly fewer sustainment requirements. The SBCT's key assets (in addition to its Soldiers) are the Stryker vehicles and digital C2 systems. Stryker vehicles provide operational and tactical mobility with added protection and firepower, and the SBCT's C2 systems enhance situational awareness down to individual vehicles.

7-21. The SBCT can operate effectively in most terrain and weather conditions. They are useful in fast-breaking operations due to their rapid strategic deployment and mobility capability. In such cases, they can gain the initiative early, seize and hold ground, and mass fires to stop the enemy. Infantry units are particularly effective in urban terrain where they can infiltrate and move rapidly to the rear of enemy positions.

7-22. The SBCT's operational capabilities include—

- Increased strategic and operational deployment capability when compared to an ABCT.
- Ability to conduct screen, guard, and cover missions against similarly equipped enemy forces. The SBCT requires augmentation to conduct a cover mission.
- Combined arms integration down to the company level.
- Enhanced situational awareness, including a common operational picture, down to squad level.
- Dismount strength for use in close and complex environments from its three infantry battalions.
- Reduced consumption rate of Class III supplies (compared to the ABCT), with nearly the same mobility.
- Greater inherent protection than an IBCT.

7-23. The SBCT's operational limitations include—

- Significantly less firepower or natural protection than ABCTs.
- More intra-theater aircraft requirements to deploy than an IBCT.
- Limited organic gap crossing capability.
- No organic military police capability.
- Lack of mobility in wet or muddy areas of operation when compared to the mobility of the tracked vehicles of an ABCT.

ARMY HEALTH SYSTEM SUPPORT TO THE BRIGADE COMBAT TEAM

7-24. The brigade surgeon develops plans, procedures, and programs for medical support for the BCT. This includes forecasting, planning, and requesting support for all ten medical functions. The BCT surgeon supports the higher headquarters surgeon's joint patient movement requirements center according to lead Service directives. The BCT surgeon provides staff planning, supervision, training, and administrative support of subordinate medical providers engaged in operational-level medical support. The AHS support to the BCT includes all mission support services performed, provided, or arranged by Army Medicine to support FHP and HSS mission requirements.

7-25. A BCT has one or more maneuver battalions, and each is supported by an organic medical platoon, which operates a Role 1 MTF. The BCT is also supported by a support battalion, which contains a medical company that operates the Role 2 MTF. The BCT surgeon maintains a technical channel with designated medical functions executed by the BCT AHS support assets. The BCT surgeon must ensure the BCT current and future operations and plans are coordinated with SPO-MED, the medical company commander, and the maneuver battalion medical platoon leaders.

7-26. Brigade combat team AHS support planning involves the brigade's staff, the supporting MEDBDE (SPT), and next higher echelon surgeon's staff section. This coordination focuses on how the command's plans impact the provision of AHS support within the brigade. A series of planning conferences, coordination meetings, and rehearsals (reference appendix A) are required to tailor an AHS support plan to sustain the brigade's anticipated operations. For additional information on AHS support to the BCT, refer to FM 4-02.

Chapter 8
Medical Enablers

Medical enablers give the Role 2 medical companies the means to provide a medical capability or additional capacity to their supported organizations. Role 2 medical companies receive support from many other AHS formations. These formations are medical enablers to the Role 2 medical company and conduct one or multiple of the AHS medical functions. Additional considerations related to operational, logistical, and administrative requirements must be planned for when EAB enablers are in a command or support relationship with the medical company. The higher headquarters medical support AHS support plan should be reviewed and understood to ensure appropriate enablers are task-organized accordingly to the Role 2s. Those EAB enablers that provide or conduct medical command and control are discussed in chapter 9.

SECTION I – FORCE HEALTH PROTECTION ENABLERS

8-1. This section will discuss those enablers that provide a medical capability or additional capacity supporting the medical functions of dental services, operational public health, COSC, veterinary services, and laboratory services. For more information on FHP support to Army operations, see ATP 4-02.8.

DENTAL SERVICES

8-2. The primary focus of dental services provided in theater are those emergency and essential dental procedures needed for Soldiers to RTD. It is important to understand the emphasis on a Soldier's oral health begins at the time the Soldier enters the Army and continues throughout the Soldier's service commitment. The Role 2 medical company may receive dental service enablers from the dental company (area support). For more information on dental services support, refer to ATP 4-02.19.

8-3. The dental company (area support) provides operational dental care on an area basis designed to eliminate potential dental emergencies. The dental company (area support) provides dental consultative services as required. The dental company (area support) is assigned to the TMC or MEDBDE (SPT).

8-4. The dental company (area support) is employed with the TMC or MEDBDE (SPT) within a TO. Dental teams may be employed in the brigade or EAB area to provide operational dental care. The dental company (area support) is allocated to one per 43,000 Army population supported in the theater based upon the ratio of one dentist in support of 1,175 troops.

8-5. The Role 2 medical unit may receive support from the forward support treatment platoon that provides operational dental care throughout the TO and isolated troop concentrations. The forward support treatment platoon of the dental company (area support) has three forward support treatment sections. Each section consists of six semi-mobile teams made up of a dental officer, dental technician, dental equipment and supplies, and mobile electric power. The forward support treatment sections are dependent on the supported organization for administrative and logistical support.

OPERATIONAL PUBLIC HEALTH

8-6. History has shown more Soldiers are lost due to DNBI than to combat wounds. Therefore, maintaining the health and fighting fitness of Soldiers is a vital responsibility of all leaders. Commanders can reduce the health threat by emphasizing preventive measures. All leaders must be active in promoting the importance

of personal hygiene, field sanitation, adequate rest, counseling, and treatment of COSRs. For more information on the operational public health medical function, refer to ATP 4-02.8.

8-7. The medical detachment, PVNTMED is the only EAB formation that provides operational public health support to the Role 2 medical companies. The medical detachment, PVNTMED provides technical consultation support on operational public health issues throughout the theater of operation. The detachment is assigned to a TMC, MEDBDE (SPT), or MMB. The detachment may be attached to a unit in the BCT or be tasked in a support relationship to the BCT or EAB. The detachment is dependent upon appropriate elements of the AOR for religious, legal, FHP, HSS, field feeding, finance, and personnel and administrative services.

8-8. The detachment is allocated to the theater at one detachment per 17,000 personnel supported at the corps or EAB. When employed, the detachment may be—

- Attached to units in the corps or EAB. The detachment collocates on a temporary basis with the supported unit until the mission is completed or the mission priority changes.
- Attached to a BCT. The detachment collocates with the PVNTMED section of a medical company to ensure coordination of support efforts.
- Deployed in general support. The detachment collocates with a medical unit or headquarters.

8-9. The detachment unit provides the—

- Ability to gather information systematically to input into an automated medical surveillance system to produce real-time tactically significant health threat profiles.
- Guidance to the command concerning personnel protective measures by performing a medical assessment of the command and the potential impact of DNBI on military operations.
- Epidemiological investigations to include case-contact interviewing, contact tracing, and outbreak investigations.
- On-site water quality analysis.
- Monitoring of water and field ice production and distribution.
- Collection of water, soil, and air samples from sources that may pose environmental, occupational, or industrial hazards to U.S. troops for theater validation analysis by an area medical laboratory (AML) or definitive analysis by continental United States or international laboratories.
- Food service sanitation inspections of field feeding sites.
- Monitoring and guidance on proper field sanitation and waste disposal techniques. For further information on waste management and disposal, refer to ATP 4-25.12 and TM 3-34.56.
- Guidance on the prevention of climatic injuries (heat, cold, and altitude).
- Direct pest management support including aerial spray missions.
- Direct medical entomology consultation on arthropod-borne disease, use of pesticides, poisonous plants and animals, and measures for control or avoidance of disease vectors of military significance.
- Collection of environmental samples including water and ice for CBRN surveillance using a chain of custody and forwarding samples to supporting environmental or CBRN laboratories for identification.
- Coordination with the CBRN reconnaissance and biological detection units for collection of air and soil environmental samples for laboratory analysis.
- Information on specific personal protective measures to counter the health threats.
- Training and certification for field sanitation team and food service personnel.
- Health promotion education.
- Inspection of cargo destined out of theater for plants, arthropods, rodents, soil, and other items as specified to prevent their introduction into the United States, its territories and possessions, or other nations.
- Assistance in the issuance of vessel clearances for entry into the destination ports, as authorized.
- Staff estimates of health threats in the AO.

- One MOS 91B, Wheeled Vehicle Mechanic, to augment the maintenance capability of the unit that performs maintenance on its organic vehicles.
- Three teams as necessary to perform missions. These teams are responsible for conducting evaluations within their assigned AO or to be task-organized to provide direct operational public health support to designated BCTs or EAB units, as required.

COMBAT AND OPERATIONAL STRESS CONTROL

8-10. Control of stress is often the decisive difference between victory and defeat across the competition continuum. Uncontrolled COSR may cause erratic or harmful behaviors, may impair mission performance, may result in failure, and may defeat COSC preventive measures. The COSC preventive measures are aimed at minimizing maladaptive stress reactions while promoting adaptive stress reactions, such as loyalty, selflessness, and acts of bravery. The functions and operations of organizations that conduct or support COSC are outlined in ATP 4-02.8.

8-11. Combat and operational stress control is the commander's responsibility at all levels. The key concern for combat commanders is to maximize the RTD rate of Soldiers who are temporarily impaired or incapacitated with stress-related conditions or diagnosed behavioral disorders.

8-12. The commander implements COSC measures with assistance from the unit ministry team, the mental health section that is assigned to the Role 2 medical company, and when available the medical detachment COSC.

8-13. The COSC detachment provides COSC prevention and treatment services in DS of BCT, division, corps, and theater army and on an area basis to a joint or combined force as directed in other military operations. The COSC detachment is assigned to a MMB and employed in the TO in supporting tactical division, corps, and theater army.

8-14. The COSC detachment has the capability to deploy a forward support section supporting a division as required. The supported unit provides C2 for the forward support section. Both support sections have the capability to break down into six three-Soldier teams. The forward support section performs prevention and limited fitness activity support to maneuver brigades and area support to units in BSAs.

8-15. One COSC detachment is allocated to the theater per 39,000 Army population supported in theater with a minimum of one being allocated. The detachments provide—

- Planning and staff advice to C2 headquarters regarding the stressors affecting the troops, mental readiness, morale, and cohesion.
- Preventive consultation and stress education support to leaders, chaplains, and medical personnel.
- Neuropsychiatric care, triage, and stabilization.
- Assistance to nonmedical units with rest category COSR patients and the RTD of recovered COSR Soldiers.
- Holding and restoration capability of 50 Soldiers for up to three days.
- Reconstitution to supported units.
- Debriefings after critical events and after action reports.

VETERINARY SERVICES

8-16. The Role 2 medical company may receive veterinary service support from the medical detachment, veterinary service support (MDVSS). The functions and operations of each veterinary element within an AO is outlined in ATP 4-02.8. It provides techniques and procedures for veterinary support. Army Techniques Publication 4-02.8 was written to assist veterinary commanders and staffs to operate efficiently in the EAB arena. However, it does not discuss the U.S. Air Force Military Working Dog (MWD) Program. For information on this program, refer to AR 190-12, ATP 3-39.34, and DAFI 31-121.

8-17. The MDVSS executes Army veterinary proponency requirements as the sole provider of veterinary services to the DOD. The MDVSS is assigned to a TMC, MEDBDE (SPT), or a MMB.

8-18. The MDVSS can be task-organized across team lines or subdivided to meet a variety of functional scenarios within the stated mission. The MDVSS headquarters section may be located in the center of operations or near other medical units providing C2. The MDVSS functions well in conjunction with PVNTMED units.

8-19. The MDVSS provides one or more veterinary teams for early entry capability to provide veterinary medical and surgical care to military and DOD contract working dogs and to support initial food inspection requirements. The veterinary teams of the MDVSS may be geographically dispersed to align with their primary customers or those activities, such as aerial and seaports of debarkation, or corps and theater Class I points.

8-20. The MDVSS may be aligned with civil-military operations centers at BCTs, with civil affairs units, or with task-organized provincial reconstruction teams when directed for support of stability tasks. The MDVSS supports joint forces in execution of the Army's function of sole provider of veterinary services to the DOD. The MDVSS is allocated for—

- Large-scale combat operations maximum of one per—
  - 60,000 personnel supported in all U.S. forces, DOD components and other units as directed.
  - 300 military working dogs and DOD contracted working dogs in support of all U.S. forces, DOD components and other units as directed.
  - Senior Army headquarters.
- Army support to other Services, add three additional MDVSSs.
- Special operations forces, one veterinary team per combined joint special operations task force (offset by workload).
- Stability operations same as major combat operations.
- Civil authority adjustments will be based on roles of care directed and population at risk supported.

8-21. The MDVSS provides—

- Early entry capabilities for establishment of initial veterinary Role 1 and Role 2 medical and resuscitative surgical care to military and DOD contract working dogs and food inspection support in the AOR.
- Veterinary Role 1 and Role 2 resuscitative surgical care to military and DOD contract working dogs and food inspection support in the AOR.
- Veterinary Role 3 advanced canine surgical care and definitive and restorative military working dog dental care to include endodontic procedures.
- Veterinary Role 3 evacuation and hospitalization support for military working dogs and veterinary Role 3 hospitalization for DOD contract working dogs.
- Endemic zoonotic and foreign animal disease epidemiology surveillance and control.
- Animal facility and kennel inspections.
- Commercial food source audits for DOD procurement.
- Food safety, quality, and sanitation inspections.
- Food defense vulnerability assessments.
- Food and water risk assessments.
- Field confirmatory microbiological and presumptive chemical food and bottled water laboratory analysis.
- Veterinary support to stability tasks and defense support of civil authorities' activities. For additional information on defense support of civil authorities, refer to ATP 4-02.42.

MEDICAL LABORATORY SERVICES

8-22. Medical laboratory services consist of environmental and clinical laboratory services. The role of the medical laboratory services and their relationship with FHP is discussed in ATP 4-02.7 and ATP 4-02.10.

ENVIRONMENTAL LABORATORY SERVICES

8-23. Environmental laboratory services is provided by the AML. The AML is the Army's specialized theater laboratory that provides environmental laboratory services including field confirmatory and theater validation laboratory support. The AML focuses on rapid health-hazard identification and assessment within the AO. Its primary role is to provide theater validation analytical laboratory support for environmental (air, water, and soil), epidemiological, food and water security, infectious disease, and CBRN samples. Its focus is the total health environment of the theater, not individual patient care. The AML's capabilities include the confirmatory analytical laboratory testing and health hazard assessment of suspect CBRN agents, endemic diseases, and occupational and environmental health hazards.

8-24. The AML personnel collaborate with hospital clinical laboratory services within the theater. The AML is capable of incrementally deploying its functional modules as the operational requirement for laboratory support increases. This flexibility enables rapid force projection that enhances AHS support in theater.

8-25. The AML may also deploy one or more of its three operational sections or tailor smaller biological, chemical, operational environmental health, or cross-functional teams that can operate forward with local support.

8-26. The AML is normally deployed to a theater to provide field confirmatory and theater validation medical laboratory support to Army and other DOD units (as directed) on an area basis. For additional information on the AML, refer to ATP 3-37.11, ATP 4-02.7, or ATP 4-02.8.

CLINICAL LABORATORY SERVICES

8-27. Currently, there are no EAB clinical laboratory enablers that deploy forward to support Role 2 MTFs. All Role 2 MTFs provide basic clinical laboratory services within the theater. They perform basic procedures in hematology, urinalysis, microbiology, and serology. Role 2 MTFs receive, maintain, and transfuse blood products.

8-28. The clinical laboratory in the Role 3 MTF performs procedures in biochemistry, hematology, urinalysis, microbiology, and serology in support of clinical activities. The Role 3 MTF also provides blood-banking services. For additional information on clinical laboratory at Role 3, refer to ATP 4-02.10.

HOLISTIC HEALTH AND FITNESS

8-29. The holistic health and fitness (H2F) system is designed to address the readiness of every Soldier. Performance readiness experts of the H2F system will assess each Soldier's physical and mental status and design programs to sustain or improve that Soldier's ability to meet the demands of their military occupational specialties, duty assignments, and combat-specific tasks. This individualized approach is sustained across the Soldier's Army career. It represents a cultural shift from the industrial scale approaches of the past where massed formations received the same training in a one-size-fits-all approach often with no equipment or expertise required to lead the training. It also represents a shift from expecting individual Soldiers who often train remote from their units to independently develop and implement a performance training program. The H2F system addresses the needs of those individual Soldiers, too. For more information on the Army's fully revised physical readiness training doctrine, see FM 7-22.

8-30. The personnel element in the H2F system are those Soldiers, government service, and contracted performance experts who are assigned to brigade-sized units. They have been validated by the Army as experts in H2F programs and know how to synchronize each domain to optimize Soldier readiness. These personnel form the commander's H2F performance team—a team dedicated to performance readiness. They include individuals such as physical therapists, registered dietitians, occupational therapists, and strength and conditioning specialists and athletic trainers. These highly qualified experts work with the brigade chain of command, unit-level H2F trainers, master fitness trainer instructors, and Army combat fitness test graders, as well as unit medical and installation personnel to develop and coordinate performance readiness. For additional information on H2F, refer to ATP 7-22.01, ATP 7-22.02, and FM 7-22.

SECTION II – HEALTH SERVICE SUPPORT ENABLERS

8-31. This section will discuss the enablers that provide the medical functions of medical treatment, hospitalization, MEDEVAC, and MEDLOG and focus on those formations that provide a medical capability or additional capacity to the Role 2 medical companies. For more information on HSS support to Army operations, see FM 4-02.

MEDICAL TREATMENT

8-32. The medical treatment function encompasses Role 1 and Role 2 medical treatment support. These roles of care are provided by organic assets (medical platoons of maneuver forces and treatment teams assigned to sustainment units) or on an area support basis from supporting medical companies or detachments. Within the BCTs and EAB AHS units, this support is provided by the BSMC, MCAS, and MDMC. The area support function encompasses TCCC and routine sick call.

8-33. Medical treatment is the primary mission of the Role 2 medical company; however, they can receive additional medical treatment enablers from the following organizations:

- Medical Detachment, Forward Resuscitative and Surgical (FRSD).
- Medical Detachment, Forward Resuscitative and Surgical (FRSD) Airborne.
- Medical Company (Area Support).
- Medical Team, Optometry.
- Medical Detachment (Patient Care Augmentation).

Note 1. The above unit titles are taken verbatim from FMSWEB to facilitate an easier match when referencing them in FMSWEB.

Note 2. The forward resuscitative and surgical team (FRST) term has been updated to FRSD; however, the Section I and unit names are still being updated to match. A team is the smallest formation. Because the FRSD has two composite 10-person sections and can conduct split-based operations the unit title was updated. For more information about FRSD, refer to ATP 4-02.25.

FORWARD RESUSCITATIVE AND SURGICAL DETACHMENT

8-34. The FRSD's mission is to provide a rapidly deployable, urgent, initial surgical service in the BCT AO. The detachment is assigned to the headquarters and headquarters company, TMC, the headquarters and headquarters company, MEDBDE (SPT), and attached to a Role 3 MTF when not operationally employed and further attached to a medical company to provide resuscitative and surgical care. This unit is dependent upon appropriate elements within the theater for—

- Religious, legal, FHP, finance, and personnel and administrative services.
- Patient evacuation.
- Medical maintenance and repair.
- Class VIIIA and Class VIIIB (blood) resupply.

Note. When the FRSD is operationally attached to a BSMC, the BMSO provides the medical device maintenance and repair as well as Class VIIIA and Class VIIIB (blood) resupply.

- Rigging when airdrop operations are required (airborne only).
- Sling load operations as required.

8-35. The FRSD is allocated one per BCT, one per airborne BCT, one per special forces group, and one per BCT assigned to a theater conducting stability and reconstruction operations. The FRSD has the capability to provide—

- Continuous operations in conjunction with a supporting medical company for up to 72 hours.
- Urgent initial surgery for otherwise nontransportable patients.
- Emergency treatment to receive, triage, and prepare incoming patients for surgery.
- Required surgery and continued postoperative care for up to 30 critically wounded or injured patients over a period of 72 hours with its organic MESs.
- Simultaneously postoperative acute nursing care for up to eight patients per team prior to further patient evacuations.

Note. If the FRSD conducts split-based operations (10 personnel), the teams can provide emergency treatment to receive, triage, and prepare 12 incoming patients for surgery over a 72-hour period and provide the required surgery and continued postoperative care for critically wounded or injured patients with organic MES. Postoperative care can manage four patients over six hours post-surgery.

- Technical advice and assistance to the division surgeon and the division surgeon section for the surgical services portion of the division plans and policies.
- Current information concerning surgical augmentation of Role 2 MTFs to higher headquarters.
- Team augmentation of the surgical capability of Role 3 MTFs.
- The coordinated defense of the unit's area or installation.

8-36. The FRSD is employed similarly regardless of the OE or type of operation being supported. Army Techniques Publication 4-02.25 provides guidance for training, establishing, employing, and sustaining the detachment.

MEDICAL COMPANY (AREA SUPPORT)

8-37. The MCAS is an EAB medical formation. The medical treatment squads provide emergency and routine sick call treatment to Soldiers assigned to units within the MCAS AO without organic medical support. Each treatment squad can perform their functions while collocated in the company area, or they can split and operate as separate treatment teams (Team A and Team B) for limited periods. While operating in these split modes, each squad may operate up to two treatment teams. These teams can be assigned to reinforce or reconstitute similar treatment squads throughout the AO or the BCT. For further discussion on the employment of the MCAS, see chapter 2.

MEDICAL TEAM, OPTOMETRY

8-38. The medical team, optometry provides optometry care and optical fabrication to a BCT on an AO basis. It is assigned to a TMC or a MEDBDE (SPT) with further attachment to a MMB and may be further attached to the BSMC.

8-39. This unit is dependent upon—

- Appropriate elements of the (division or corps) for legal, finance, maintenance, personnel and administrative support, laundry and bath services, clothing exchange for unit personnel, communications and information management support, and security of enemy prisoner of war.
- The unit to which it is attached for water distribution, personnel and administrative services, FHP, patient evacuation, biomedical maintenance, logistic support, and field maintenance of team vehicles, and communications equipment.
- The MMB for C2 as well as logistic support.
- The field feeding company or supported BCT for field feeding support.

8-40. The medical team, optometry is employed in all intensities of conflict when a BCT is deployed. Task-organized elements are deployed for brigade-sized combat operations, stability operations, and support

operations, METT-TC (I) dependent. The medical team, optometry supports a BCT in the division area of operation and is usually attached to the MMB with further attachment to the BSMC. The medical team, optometry basis of allocation is one per 15,000 population supported in an AO.

8-41. The medical team, optometry consisting of six personnel who can be divided into two teams (Optometry Teams A and B) and deploy in support of the BCT and non-brigade units in the AO as far forward as possible. Each team has the capability to provide optometry support limited to—

- Examinations to detect, prevent, diagnose, treat, and manage ocular related disorders, injuries, diseases, and visual dysfunctions.
- Initial diagnosis and management of eye injuries on the battlefield.
- Spectacle fabrication, frame assembly, and repair services of single vision spectacles.

MEDICAL DETACHMENT (PROLONGED CARE AUGMENTATION)

8-42. The prolonged care augmentation detachment provides Role 2 medical companies and FRSDs operating in the EAB and BCT's AO with additional capability and capacity to provide prolonged care and en route critical care. The prolonged care augmentation detachment's sections augment the prolonged care capabilities and capacity of the division or BCT medical assets when MEDEVAC is delayed or denied due to the tactical situation. The detachment can provide or augment patient care for protracted periods during delayed evacuation and continue to provide or augment en route care to patients from the tactical level to the continental United States in all evacuation platforms.

8-43. The prolonged care augmentation detachment is composed of five sections of 12 medical personnel each. Each prolonged care section has three squads composed of one MOS 65D, Physician Assistant, one MOS 66S or 66T, Critical Care Nurse or Emergency Room Nurse, one MOS 68C, Licensed Practical Nurse, and one MOS 68W, Combat Medic Specialist. Squads can be further employed as two teams of two personnel, with a team being a combination of one officer and one enlisted.

8-44. The prolonged care augmentation detachment is assigned to corps aligned MEDBDE (SPT) and attached to the Role 3 when not operationally employed and further attached to a medical company. This unit is dependent upon—

- Appropriate elements for religious, legal, FHP, finance, and personnel and administrative services.
- The general support aviation battalion for patient AE.
- The unit to which it is attached for medical maintenance and repair as well as Class VIIIA and Class VIIIB (blood) resupply.
- Medical company, ground ambulance for the ground ambulance evacuation of patients.

Note. When the prolonged care augmentation detachment is operationally attached to a Role 2, the BMSO provides the medical device maintenance and repair as well as Class VIIIA and Class VIIIB (blood) resupply.

HOSPITALIZATION

8-45. Hospitalization is a Role 3 medical function. While the Role 2 does not directly receive any EAB hospitalization enablers, the Role 2 does receive hospitalization area support from the supporting Role 3 MTF.

MEDICAL EVACUATION

8-46. Medical evacuation entails the movement of patients on dedicated ground and air ambulances, medically staffed and equipped to provide en route medical care; supports the military health system; and links the continuum of care. The Role 2 medical company receives MEDEVAC enablers from the following organizations:

- Med Co, Air Ambl (15 ACFT).
- Med Co, Air Ambl (LUH).

- Med Co, Air Ambl (HH-60).
- Med Det, Air Ambulance (HH-60) (USAREUR).
- Med Co, Ground Ambulance.

Note. The above unit titles are taken verbatim from FMSWEB to facilitate an easier match when referencing them in FMSWEB.

MEDICAL COMPANY, AIR AMBULANCE

8-47. There are currently three formations organized as MCAA, and one organized as medical detachment, air ambulance (MDAA). The formations are—

- Med Co, Air Ambl (15 ACFT).
- Med Co, Air Ambl (LUH).
- Med Det, Air Ambulance (HH-60) (USAREUR).

Note 1. The above unit titles are taken verbatim from FMSWEB to facilitate an easier match when referencing them in FMSWEB.

Note 2. Med Co, Air Ambl (LUH) and Med Co, Air Ambl (HH-60) are currently only located in Component 2, National Guard.

Medical Company (Air Ambulance) (15 Aircraft)

8-48. The 15 aircraft MCAA has a company headquarters and four FSMPs. Whether deployed individually or as a unit, MCAA assets are dependent upon the supported unit for food, fuel, security, intelligence, communications, wheeled vehicle maintenance, and all classes of supply except Class IX (air).

8-49. The MCAA headquarters provides C2. It provides support to air ambulance operations within the AO assigned it by higher command. The company headquarters provides unit-level administration and general supply. The command element is responsible for the provision of billeting, security, training, and administration and discipline of assigned personnel.

8-50. The MCAA assets can collocate with AHS support organizations, the aviation TF, the supported BCT, or higher to provide air ambulance support throughout the AO. Air ambulance aircraft are equipped with medical personnel and equipment enabling the provision of en route care of patients.

8-51. The MCAA with the area support MEDEVAC platoon has the same mission as the MCAA with area support MEDEVAC team. The area support MEDEVAC platoon brings increased organizational capacity and capability over the MEDEVAC team.

8-52. The FSMP is composed of three HH-60 aircraft and associated personnel that support 24-hour operations. The FSMP's assets and efforts should not be rigidly tied to any area or supported unit. To effectively support LSCO, the FSMP must remain agile and flexible in its employment throughout the AO. Air ambulance assets are a limited resource and are located where they are most needed.

8-53. One forward support MEDEVAC team legacy organization remains in the Army inventory. The forward support and area support MEDEVAC platoons have replaced the remainder of the forward and area support MEDEVAC teams. The primary mission of the FSMP is MEDEVAC by air ambulance. The FSMP provides—

- Patient movement between MTFs.
- Class VIII resupply.
- Joint blood program support.
- Medical command and control transport.

- Movement of medical personnel and equipment.
- Air crash rescue support.

8-54. The MCAA can be employed at all echelons from brigade to theater. It is tactically located where it can best control its assets and execute its patient evacuation mission. The MCAA is allocated to one per general support aviation battalion. The MCAA has the capability to provide—

- Fifteen helicopter ambulances to evacuate critically wounded or other patients consistent with evacuation priorities and operational considerations, from points as far forward as possible, to brigade MTFs and hospitals. Total lift capability utilizing all assigned aircraft is 90 litter patients or 105 ambulatory patients, or some combination thereof.
- One area support MEDEVAC platoon (three aircraft) that will normally locate with the company headquarters. Four FSMPs (three aircraft each) that can be deployed independently or as a group in support of a BCT.
- Air crash rescue support.
- Expeditious delivery of blood products, biological, and medical supplies to meet critical requirements.
- Rapid movement of medical personnel and accompanying equipment and supplies to meet the requirements for MASCAL, reinforcement, reconstitution, or emergencies.
- Movement of patients between hospitals, aeromedical staging facilities, hospital ships, casualty receiving and treatment ships, seaports, and railheads in the brigade AO.

8-55. The functions of the MCAA include—

- The company headquarters or area support MEDEVAC platoon that provides C2 of all area support and forward support MEDEVAC operations and provides logistical and administrative support for the company. The area support MEDEVAC platoon provides area support AE within the brigade AO.
- The FSMP provides a task-organized means for AE in support of the brigade. It also provides emergency movement of medical personnel and emergency delivery of blood products as well as biological and medical supplies and equipment.

Medical Company, Air Ambulance (LUH), Security and Support Battalion, Combat Aviation Brigade (AER) Army National Guard Mechanized Infantry Division

8-56. The MCAA LUH provides AE in support of Homeland Security and Defense requirements to include support of selected operations outside the continental United States. The MCAA LUH is organic to the aviation security and support battalion.

8-57. The MCAA LUH is dependent upon—

- Appropriate elements within the theater for religious, legal, FHP, finance, and personnel and administrative services.
- Headquarters and headquarters company, aviation security and support battalion for unit-level logistical support.
- United States Air Force Weather Team in the headquarters and headquarters company, combat aviation brigade for Air Weather service support.

8-58. The MCAA LUH provides geographically dispersed, readily available, light utility AE capability for Federal or State authorities and combatant commanders. Most operations will occur in the United States and its territories in support of Homeland Security and Defense. The company can also deploy and operate worldwide in permissive environments.

8-59. The MCAA LUH is allocated to one per aviation security and support battalion. The MCAA provides—

- Eight helicopter ambulances to evacuate critically wounded or other patients consistent with evacuation priorities and operational considerations, from points as far forward as possible, to the appropriate MTFs.
- Two MEDEVAC platoons (four helicopters each) that can be independently deployed.

- Expeditious delivery of blood products as well as biological and medical supplies to meet critical requirements.
- Rapid movement of medical personnel and accompanying equipment and supplies to meet the requirements for MASCAL, reinforcement, reconstitution, or emergencies.
- Movement of patients between aeromedical staging facilities.
- Immediate and deliberate search and rescue operations.
- Aeromedical evacuation support to respective civil support teams and CBRN incidents.
- Aeromedical evacuation support to Northern Command AOR and, as required, to State Adjutant Generals.
- Continuous day and night aviation operations during visual and marginal weather conditions and limited aviation operations during instrument weather conditions.
- Unit-level personnel and administrative services (unit clerk functions only) support for assigned personnel.
- Unit-level logistical support to include supply support, field-level maintenance (ground), communications maintenance (except communications security and Aircraft Class III/IX).
- Aviation field-level maintenance for eight organic LUH MEDEVAC aircraft.

8-60. The flight operations section provides coordination, synchronization, and planning for air ambulance operations. The flight operations officer ensures lines of communications to supported elements are established and maintained. The flight operations section establishes prompt and safe MEDEVAC by air ambulance briefings and launch procedures, maintains situational understanding of the AO, and ensures the supported elements understand MEDEVAC by air ambulance procedures and capabilities. The flight operations section performs those functions required to ensure the prompt and safe launch of air ambulance assets as required in the AO. This section also maintains situational understanding of MTFs capacities and capabilities as they consider air ambulance operations in the AO.

Medical Detachment, Air Ambulance (HH-60) (U.S. Army Europe)

8-61. The U.S. Army Europe (USAREUR) Medical Detachment Air Ambulance (MDAA) conducts AE and support within USAREUR. The MDAA is organic to the aviation battalion (USAREUR) and dependent on—

- Headquarters and headquarters company, aviation battalion (USAREUR) for unit-level personnel and administrative, legal, financial, and religious services, logistical support, and FHP.
- The aviation maintenance company for aviation field-level maintenance support, to include associated aviation ground support equipment and logistical support for aviation and common Class IX repair parts.
- Supported unit for field feeding.

8-62. The MDAA is employed as part of the aviation battalion and is allocated to one per aviation battalion (USAREUR). The MDAA provides—

- Six helicopter ambulances to evacuate critically wounded or other patients consistent with evacuation priorities and operational considerations, from points as far forward as possible, to appropriate MTFs within USAREUR. Single patient lift capability for the detachment is 12 litter patients or 14 ambulatory patients, or some combination thereof.
- Two air ambulance sections (three helicopters each) that can be deployed independently or in a group.
- Air crash rescue support, less fire suppression.
- Expeditious delivery of blood products as well as biological and medical supplies to meet critical requirements.
- Rapid movement of medical personnel and accompanying equipment and supplies to meet the requirements for MASCAL, reinforcement, reconstitution, or emergencies.
- Movement of eligible DOD patients between hospitals according to AE policies and procedures directed by commander, USAREUR.

MEDICAL COMPANY, GROUND AMBULANCE

8-63. The medical company, ground ambulance provides ground evacuation within the joint operations area. The medical company ground ambulance is assigned to a MMB or a MEDBDE (SPT). The medical company ground ambulance is dependent upon—

- Appropriate elements within the AOR for religious, FHP, HSS, legal, finance, personnel, and administrative services.
- Communications and communications-security support when not assigned or attached to a higher medical headquarters.
- Vehicle and generator maintenance support when not assigned or attached to the MMB.
- Life support functions and decontamination support in a CBRN environment for separately deployed teams.
- Field feeding company or supported BCT for field feeding support.

8-64. The medical company, ground ambulance is employed in EAB. It is tactically located where it can best control its assets and execute its patient evacuation mission. The medical company, ground ambulance is allocated for—

- Major combat operations, 0.33 of company per BCT, 0.5 of company per division headquarters, and two companies per senior Army headquarters.
- Stability operations, 0.33 of company per BCT, 0.5 of company per division headquarters, two companies per senior Army headquarters, and one company per 42,000 supported population for directed support to host nation population at risk.
- Enabling civil authority, basis of allocation adjustments will be based on roles of care directed and population at risk supported.

8-65. The medical company, ground ambulance provides—

- Twenty-four ground ambulances to conduct single-lift evacuation of 96 litter patients or 192 ambulatory patients, or a combination of both.
- Evacuation of patients from Role 2 MTFs to supporting hospitals.
- Reinforcement of Role 2 evacuation assets.
- Reinforcement of covering force and deep battle operations.
- Movement of patients between hospitals and en route patient staging systems, railheads, or seaports in brigade and EAB areas.
- Area evacuation support beyond the capability of the MCAS.
- Emergency movement of medical supplies.
- Vehicle refueling support for the MMB when collocated.

MEDICAL LOGISTICS

8-66. This section will focus on those MEDLOG enablers that directly support the Role 2 medical companies. For a complete discussion on Class VIII supply operations for Role 1 and Role 2 units, refer to ATP 4-02.1.

8-67. The role of the TMC in MEDLOG support is to control and supervise Class VIII supply and resupply (including blood management) within the theater. The health services materiel officers (70K) and MEDLOG specialists (MOS 68J) within the TMC are responsible for the coordination and orchestration of MEDLOG operations to include Class VIII supply, distribution, medical device maintenance and repair support, optical fabrication, and blood management including planning and support and serve as the single item line manager, when designated. For more definitive information on the TMC, refer to FM 4-02.

8-68. The MEDLOG functions of the TMC are AO or joint operations area focused providing oversight or C2 of MEDLOG functions within subordinate units including the functions of the MEDLOG management center. The TMC maintains the command link between the MEDBDE (SPT) and the coordination link with the theater sustainment command through the MEDLOG management center.

8-69. The MEDLOG management center, in conjunction with the MLC or MMB and supported by the TMC, may be designated by the combatant commander to serve as the single item line manager for joint operations. Medical logistics support operations within the TMC are conducted by MEDLOG personnel within the office of the deputy chief of staff, logistics, and the MEDLOG support section. Medical logistics personnel are assigned within the main CP and operational CP and deploy with the element to which they are assigned.

8-70. The Role 2 medical company receives Class VIIIB (blood) MEDLOG support from the—

- Medical Detachment, Blood Support.
  - Headquarters, Medical Detachment, Blood Support.
  - Collection, Storage and Distribution Team.
  - Collection, Manufacturing and Distribution Team.
  - Distribution Team.

8-71. The Role 2 medical company receives Class VIIIA MEDLOG support from the—

- Medical Logistics Company.
  - Medical Logistics Company (Base).
  - Med Log Co (Early Entry Team).
  - Med Log Co (Contact Repair Team).
  - Med Log Co (Forward Distribution Team).

Note. The above unit titles are taken verbatim from FMSWEB to facilitate an easier match when referencing them in FMSWEB.

MEDICAL DETACHMENT, BLOOD SUPPORT

8-72. The medical detachment, blood support provides collection, manufacturing, storage, and distribution of blood and blood products to BCTs, corps, and EAB medical units and to other services as required. The medical detachment, blood support is assigned to the MMB and is dependent upon—

- Appropriate elements within the theater for religious, legal, FHP, finance, and personnel and administrative services.
- Higher level medical elements, usually the headquarters and headquarters detachment, MMB and appropriate elements of the theater MEDBDE (SPT) for FHP, supplemental transportation, technical intelligence for captured medical materiel, power generator maintenance support, communications maintenance support, and additional automotive and utilities maintenance support.
- Host unit for life support functions for separately deployed teams.
- Field feeding company or supported BCT for field feeding support.

8-73. The medical detachment, blood support will normally be under the C2 of the MMB. The detachment has the capability for 72-hours of limited self-sustainment during initial operations. The detachment can deploy a headquarters and a collection storage and distribution team, a collection manufacturing and distribution team, or a distribution team. The headquarters may forward deploy any of these teams as required. See the Section I of each subordinate TOE for employment statements.

8-74. The medical detachment, blood support is allocated for—

- Major combat operations, 0.035 per Field Hospital; 0.035 per Hospital Aug Det (Surgical 24 Bed); 0.039 per FRSD; and 0.007 per MCAS or BSMC (first medical detachment blood support arrives with the arrival of the first field hospital, FRSD, or Role 2).
- Stability operations, one per joint operations area.
- Special Operations Forces Rule, 0.039 per FRSD and 0.007 per Role 2 (first medical detachment blood support arrives with the arrival of the first FRSD or Role 2).

8-75. The medical detachment, blood support—

- Establishes the theater blood distribution plan within the joint operations area, including storage levels and locations, and the schedule of re-supply.
- Prepares and submits joint operations area Blood Reports to the Combatant Command Joint Blood Program Office and the Armed Services Blood Program Office.
- Implements, monitors, and enforces Armed Services Blood Program Office and Joint Blood Program Office policies and procedures within the joint operations area.
- Receives and stores up to 5,100 refrigerated frozen blood products from the continental United States or other U.S. MTFs and further distributes these blood products to supported MTFs and medical units.
- Operates in a hub and node distribution manner over a large geographic area.
- Provides consultation with commanders from company to theater level regarding blood support.
- Conducts and coordinates administrative and logistical support to sustain operations.
- Receives and accounts for blood and blood product shipments from the Armed Services Whole Blood Processing Laboratory or Expeditionary Blood Trans-shipment Centers.
- Maintains theater blood storage depot.
- Stores blood and blood products pending transfer to distribution and collection sections.
- Distributes blood and blood products to MTFs down to and including Role 2 organizations.
- Determines and provides the appropriate blood products and blood types to each facility according to the facility capabilities and role of care.
- Coordinates the movement of blood and blood products, and tracks shipments in transit to ensure proper delivery.
- Screens potential emergency whole blood donors and initiates retrospective viral marker testing on locally collected whole blood.
- Collects, processes, and tests whole blood from the available donor pool when needed for a specific emergent medical condition, such as massive blood loss coupled with a coagulopathy requiring the transfusion of certain coagulation factors found only in fresh blood products. Proper processing of blood may include testing and treatment of blood to render potential viruses and bacteria inactive.
- Ensures DOD and Armed Services Blood Program Office policy and procedures are followed with respect to emergency blood donations and transfusions.
- Screens emergency platelet-apheresis donors and initiates retrospective viral marker testing on locally collected platelet products.
- Collects single-donor platelets by apheresis when needed to address specific medical conditions, such as uncontrolled bleeding requiring the transfusion of platelets and coagulation factors. Proper processing of blood may include testing or treatment of blood to render potential viruses and bacteria inactive.

MEDICAL LOGISTICS COMPANY

8-76. The MLC provides Class VIII support, optical lens fabrication and repair, and medical device maintenance and repair for the BCT and EAB units, to include augmented support to the Role 3 MTF. The MLC is assigned to a higher-level medical element, usually the MMB.

8-77. The MLC will normally be under the C2 of the MMB, forming the MEDLOG base for the AOR. The MLC supports the BCTs, EAB, and Role 3 through the utilization of contact repair teams (CRTs) and forward distribution teams (FDTs). For more information on the employment of the MLC, the CRTs, or the FDTs, refer to ATP 4-02.1.

Contact Repair Teams

8-78. The mission of the CRTs is to provide Class VIII support, optical lens fabrication and repair, and medical device maintenance and repair for the BCT, EAB and to include augmented support to the Role 3 MTF. The CRTs are assigned to the MLC and dependent on—

- Appropriate elements of the theater for religious, legal, FHP, finance, and personnel and administrative services.
- Headquarters and headquarters detachment, MMB for AHS support, field-level maintenance, automation, and technical intelligence for captured medical materiel and communications maintenance support.
- Field feeding company or supported BCT for field feeding support.
- Quartermaster field service company (modular) for shower and laundry support.
- Support maintenance company for small arms, communications electronics, and communications security equipment.
- Host unit for life support functions when deployed separate from the MLC.

8-79. The CRTs are small teams, which can be rapidly deployed from home station, as well as from the MLC, once in theater. The CRTs will collocate with the BMSO, providing field-level medical device maintenance and repair to the BMSO, the FRSD, and all units without organic medical device maintenance support to BCT and EAB units operating in a specific geographic area.

8-80. The CRTs can augment any medical organization to include joint or multinational partners and can collocate with the BSMC if that medical company has a FRSD assigned to it. The CRTs are designed to operate at EAB and go far forward into the brigade area. The CRT section can deploy three CRTs consisting of three personnel each. These teams will provide field-level maintenance and repair support to all medical units within their AOR. The CRTs will be employed by the MMB based on METT-TC (I) data or by the request of the brigade surgeon to the MMB. The CRTs will deploy to medical units, to include all units within the BCT with medical devices. The CRTs will bring limited repair parts and medical repair cycle float capabilities. While CRTs are employed forward, they will technically inspect all medical devices within their area as proactive maintenance measures.

Forward Distribution Teams

8-81. The mission of the FDTs is to receive and process Class VIII supplies at strategic air and sea hubs in theater, facilitating medical materiel movement. The FDTs will assist customers in their AOR with MEDLOG automated information system and provide in-transit visibility. The FDTs are assigned to the MLC and dependent upon—

- Appropriate elements of the theater for religious, legal, FHP, finance, and personnel and administrative services.
- Headquarters and headquarters detachment, MMB for AHS support, field-level maintenance, automation, and technical intelligence for captured medical materiel and communications maintenance support.
- Field feeding company or supported BCT for field feeding support.
- Quartermaster field service company (modular) for shower and laundry support.
- Support maintenance company for small arms, communications electronics, and communications security equipment.
- Host unit for life support functions when deployed separate from the MLC.

8-82. The FDT can be rapidly deployed from home station as well as from the base MLC once in theater. The FDT will collocate with the sustainment brigade's distribution management teams, normally located at aerial ports of debarkation or seaports of debarkation, and support a specified geographic area. These teams may also collocate with a Role 2 MTF, Role 3 MTF, or the BMSO, if required, and provide distribution management of Class VIII. For more information on the sustainment brigade, refer to ATP 4-93.

8-83. The FDT can deploy three FDTs consisting of three personnel each. Each FDT can process up to 1.33 short tons (2,600 pounds) of Class VIII per day or 4 short tons (8,000 pounds) of Class VIII supplies per day, all three FDTs combined.

SECTION III – INTEGRATION OF MEDICAL ENABLERS INTO ROLE 2 OPERATIONS

8-84. The Role 2 relies heavily on the planning process in accomplishing its mission and must establish tactics, techniques, and procedures to ensure the integration of EAB enablers is standardized and shared on a continuous basis. The requirements for EAB medical enabler support to the Role 2 are—

- Determined by the commander and staff analysis.
- Coordinated by higher headquarters' staffs.
- Provided by the MEDBDE (SPT).
- Employed by the Role 2.

8-85. Through mission analysis, COA development, and then the orders development process, the Role 2 may receive augmentation from various EAB medical enabler units. For example, a BCT may determine requirements for medical capabilities that it does not possess organically. Those requirements and requests for support are sent to the division staff, formally in the operations channels. However, informal coordination can also be conducted through the surgeon channels. If the division has a command relationship that allows it to task EAB medical units, the G-3 will task the mission to them. If not, the request gets sent to the corps headquarters. Again, formally through the operations channels and informally through the surgeons. Finally, the supporting MEDBDE (SPT) will receive a fragmentary order to provide medical capabilities to the BCT. Based on the staff coordination up to this point, the order should include what the command or support relationship will be, and the specific instructions about when and where the supporting and supported units will link up.

8-86. Typically, this required support either increases the capacities of the Role 2 or adds capabilities it does not have. For example, adding an FRSD provides a surgical capability not organic to Role 2 units. Adding ground ambulances from an EAB ambulance company adds capacity in the provision of ground MEDEVAC support. It is important for the supported Role 2 to have a plan to integrate these EAB medical units into its medical support plan. Then, it is equally or more important to ensure extensive rehearsals solidify the integration plan. Unit SOPs are different and procedures, especially battle drills, that are routine for those assigned to the Role 2 may be done differently by the supporting units.

8-87. There are many EAB FHP and HSS enablers in support of the brigade. Tying them together utilizing medical command and control is key to the coordination and synchronization of the entire BCT AHS support plan. Figure 8-1 on page 8-17 is a notional depiction of the AHS support for a BCT.

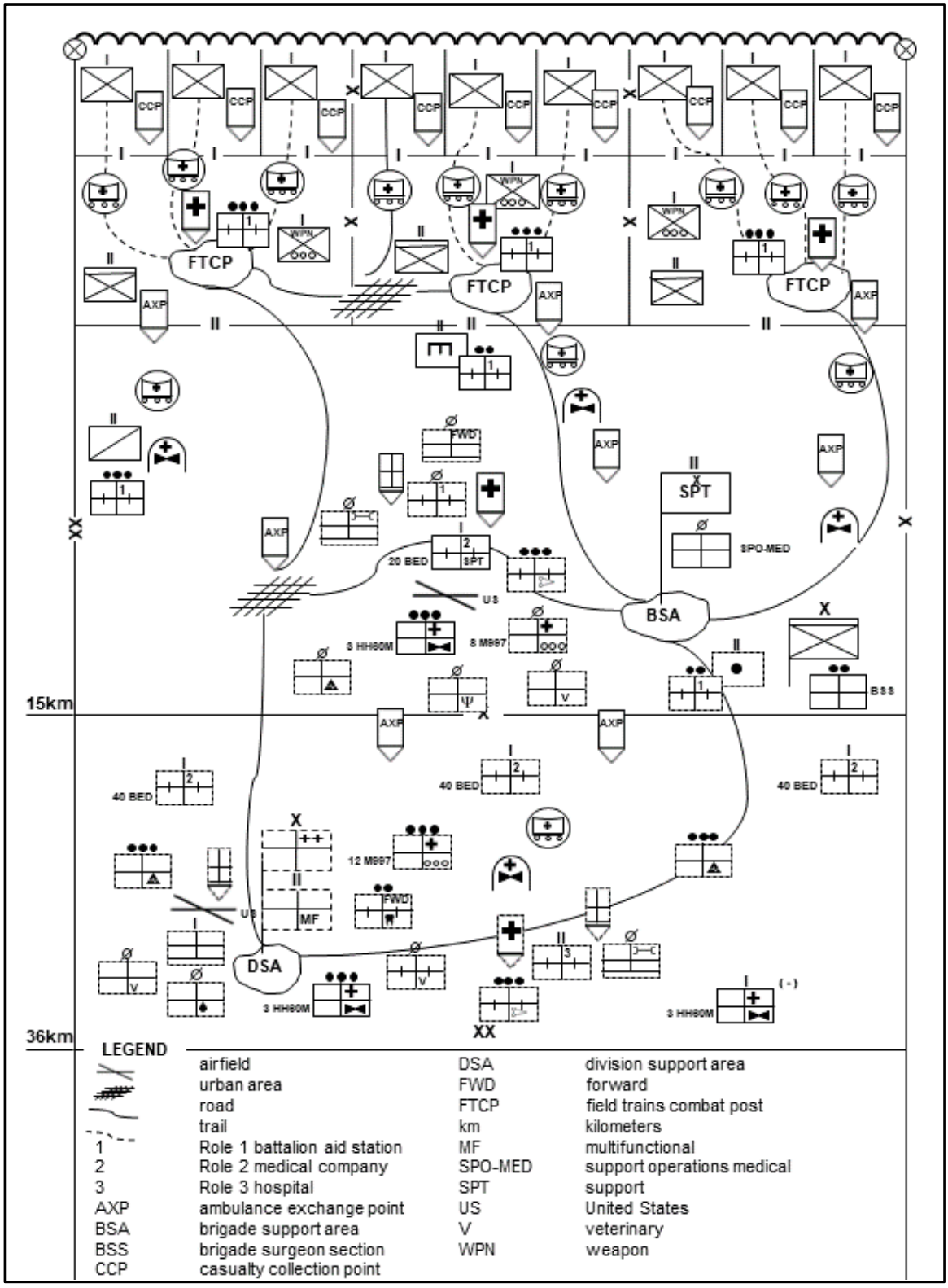

Figure 8-1. Army Health System support to a brigade combat team

8-88. The analysis of requirements determines which of the medical functions can be satisfied by the Role 2 and which ones need to be provided or augmented by EAB medical capabilities. It is then the medical command and control medical function that describes the need for synchronizing all these capabilities into a manageable medical support plan.

Chapter 9
Medical Command and Control

Maneuver forces have organic medical command and control resources within maneuver unit headquarters (brigade surgeon's section), maneuver units (medical platoons), and the medical company (brigade support). The TMC or the MEDBDE (SPT) serves as the medical force provider and is responsible for developing medical force packages for augmentation to the BCT, as required, and for the medical forces to support the division headquarters. Medical resources are also found in Army special operations forces organizations.

SECTION I – COMMAND AND CONTROL

9-1. Slight differences exist between the medical capabilities and resources of the various types of BCTs (IBCT, ABCT, and SBCT). These differences, based upon the type of parent unit, will be noted but not discussed in detail. The terms C2, mission command, and medical command and control are often confused and incorrectly understood. While they are related and aligned with each other, the relationship of each to each other must be understood and exercised correctly. *Command and control* is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission (JP 1, Volume 2). *Mission command* is the Army's approach to C2 that empowers subordinate decision making and decentralized execution appropriate to the situation (ADP 6-0).

9-2. The principles of C2 are basic, but the process can be complicated. Medical company leaders use C2 to direct, coordinate, and control the activities required to accomplish the AHS mission. The medical company's area support mission, which may disperse the company's subordinate units over a wide geographical area, further complicates the process. Command and control involves the personnel, equipment, facilities, and procedures for gathering and analyzing data and risk assessments. It also involves planning, issuing instructions, and supervising.

9-3. The medical command and control function includes the centralized medical chain of command that provides C2 of EAB medical assets. Most importantly, it also includes the surgeon's technical supervision at echelon of assigned or attached medical assets. Medical command and control is not just the exercise of C2 over assigned or attached medical units. It is an overarching function including the technical, clinical, and medical control of all FHP and HSS support. A key to the successful accomplishment of the AHS support is the synchronization of health care activities and the surgeon's technical supervision at echelon of ongoing medical and clinical operations. For more detailed information on medical command and control, refer to FM 4-02.

9-4. The complexity of the AHS mission and the dynamic and volatile battlefields of today require flexibility, creativity, and initiative by subordinate commanders. Command and control must be mission oriented. Just as the higher headquarters commander must give the medical company commander the resources and authority to accomplish their mission. The medical company commander must ensure their subordinate leaders are—

- Well trained in communication, comprehend the circumstances of their actions, and know when they have the prerogative to act.
- Trained in the military decision-making process. For more information on the military decision-making process, refer to ADP 5-0.
- Trained in the functions of their organization and employment of Army doctrine.
- Resourced with the assets and the innovativeness to accomplish the mission.

9-5. The commander and leaders in the medical company must—

- Understand their responsibilities.
- Be familiar with the responsibilities and capabilities of higher, lower, supported, and supporting units.
- Maintain contact with higher, lower, adjacent, supported, and supporting units.
- Write clear directives, reports, orders, and studies.
- Use effective oral communications.
- Understand the information system related to sustainment and the AHS.
- Ensure radio and data transmission networks are effectively used.
- Execute the plan as directed, but coordinate and make adjustments as required, to support mission accomplishment.
- State their capabilities in meaningful terms to the higher headquarters commander.
- Stay personally involved in and apprised of AHS support operations and the tactical situation and the threats.
- Comply with the law of land warfare, especially with respect to civilians, civil affairs, detainees, civil-military operations, and Geneva Conventions requirements governing AHS support operations.
- Understand their obligation to the Soldiers under their command.

SECTION II – ECHELONS ABOVE BRIGADE MEDICAL STAFF OFFICERS AND SECTIONS

9-6. Field Manual 4-02 provides doctrine for the AHS in support of the modular force and discusses the current AHS force structure modernized under the DA-approved Medical Reengineering Initiative and the Modular Medical Force. These modernization efforts were designed to support the BCTs and EAB units.

9-7. The complexities of the competition continuum, the myriad of medical functions and assets, and the requirement to provide health care across operations to diverse populations necessitate a regionally focused medical command authority capable of utilizing the scarce medical resources available to their full potential and capacity. Each of the medical command organizations (TMC, MEDBDE [SPT], and MMB) are designed to provide scalable and tailorable CPs for early entry and expeditionary operations, which could be expanded and augmented as an Army and joint integrated health care infrastructure is established and the operational area matures. Historically, medical command and control was seen as only something medical headquarters elements provided. However, the medical command and control function consists of both formal medical command organizations and the surgeon's sections at echelon that provide technical supervision and execute the required staff work for input into the orders process.

9-8. The EAB medical enablers that support the medical companies as C2 headquarters are the:

- Headquarters Headquarters Company, Medical Brigade.
  - Medical Brigade, Early Entry Module.
  - Medical Brigade, Expansion Module.
  - Medical Brigade, Campaign Module.
- Medical Battalion (Multifunctional).
  - Early Entry Element, Med Bn (MMB).
  - Campaign Support Element, Med Bn (MMB).

Note. The above unit titles are taken verbatim from FMSWEB to facilitate an easier match when referencing them in FMSWEB.

9-9. The above formations normally do not provide direct C2 to the BSMC or the MDMC. However, they may provide the MCAS with direct C2 as the MCAS is an EAB medical formation.

DIVISION SURGEON AND DIVISION SURGEON SECTION

9-10. The division surgeon is a division-level staff officer who coordinates AHS support under the sustainment and protection warfighting functions and is responsible for the AHS support plan for the division. The division surgeon coordinates through corps, unless a support or command relationship with a MEDBDE (SPT) allows for direct coordination, for resourcing of medical support requirements.

9-11. The division surgeon is responsible for the technical supervision of all medical activities in the command. The division surgeon is part of the division commander's special and personal staff and, as such, provides advice to the division commander on all medical or medically related issues. The division surgeon keeps the division commander informed on the status of AHS support for the division and the health of the command. While the specific duties of the division surgeon are like those of the brigade and battalion surgeons, the main differences are the complexities and scope of planning, professional duties, and responsibility for coordinating and synchronizing the myriad of elements and organizations affecting AHS support in the AO.

9-12. Under the supervision of the division surgeon, the division surgeon section's mission is to plan, coordinate, and synchronize the division's AHS support plan. The specific duties of the division surgeon section are mirrored at the brigade and battalion level, the main differences are the complexities and scope of planning, professional duties, and responsibility for coordinating and synchronizing the myriad of elements and organizations affecting AHS support in the AO.

MEDICAL BRIGADE (SUPPORT)

9-13. The mission of the MEDBDE (SPT) is to organize, resource, train, sustain, deploy, and provide C2 to assigned and attached AHS support units to provide flexible, responsive, and effective HSS and FHP to supported forces conducting operations. The MEDBDE (SPT) may have organizations under its control operating in the corps support area, division support area, or the BCT AO; however, these organizations operate in support of the BCT (and other organizations) operations.

MEDICAL BATTALION (MULTIFUNCTIONAL)

9-14. The mission of the MMB is to provide scalable, flexible, technical supervision and modular C2 for assigned and attached medical functional organizations and task-organized for support of BCTs and EAB organizations and attached elements. Task-organizing EAB health care assets enables the AHS support system to meet requirements for providing AHS support for the projected patient workload. Examples of capabilities provided by the MMB may include additional MEDLOG, PVNTMED resources, and enhanced medical planning capabilities. A partial list of additional capabilities in the way of organizational units includes—

- Medical company (ground ambulance).
- Medical detachment (blood support).
- Medical logistics company (MLC).
- Medical team (optometry).
- Medical detachment (veterinary service support).
- Medical detachment (PVNTMED).
- Medical detachment (COSC).
- Medical company (area support).
- Other medical capabilities may be task-organized dependent upon mission requirements.

SECTION III – BRIGADE COMBAT TEAM SURGEONS, MEDICAL STAFF SECTIONS, AND MEDICAL LEADERS

9-15. The command surgeon, medical staff sections and the medical leaders are part of the command and control system. These personnel utilize medical command and control to ensure the AHS support plan is integrated and synchronized with the combatant commander's plan and is meeting the commander's intent.

COMMAND SURGEONS

9-16. A command surgeon is designated at all levels of command (battalion and above). This medical officer is a special staff officer charged with planning and monitoring the execution of the AHS mission. Command surgeons at all echelons of command have similar duties and responsibilities. For a listing and an in-depth discussion of the command surgeon's duties and responsibilities, refer to FM 4-02.

9-17. Based upon the command surgeon's position, the scope and emphasis on which specific duties will require the greatest attention may change based upon the echelon of command. For example, command surgeons coordinate with higher, adjacent, and supported elements such as Army special operations forces that routinely operate in austere, denied, hostile, and immature AO such as early entry operations and other operations well suited for joint, multinational, or interagency environment. For more information concerning AHS support for Army special operations forces, refer to ATP 4-02.43.

9-18. The focus of AHS support to BCTs and subordinate units is to locate, acquire, treat, stabilize, and evacuate patients. As patients are only held within the BCT AO for less than 72 hours, the scope of medical procedures performed is limited by not only time but also by the availability of specialized medical material and equipment. The medical care provided at a medical company can be augmented with a FRSD to provide far forward resuscitation to stabilize nontransportable patients for evacuation to the next role of care. However, the breadth of procedures accomplished at the FRSD will be, like those at the BCT, limited by time and the availability of medical specialists and specialized medical devices.

BRIGADE SURGEON

9-19. The brigade surgeon is a member of the brigade commander's personal and special staff. The brigade surgeon is assigned to the headquarters and headquarters company of a brigade and normally works under the staff supervision of the brigade executive officer. The brigade surgeon plans and coordinates the brigade AHS support activities with the brigade commander's personal, special, and coordinating staffs.

9-20. The brigade surgeon is responsible for the technical control of all medical activities in the command. The brigade surgeon oversees and coordinates AHS support activities through the BSS and the brigade S-3. The brigade surgeon keeps the brigade commander informed on the status of AHS support for brigade operations and the health of the command. The brigade surgeon's staff consists of a MEDO and a battle staff qualified health care NCO.

BATTALION SURGEON

9-21. The battalion surgeon is a member of the battalion commander's personal and special staff and serves as the medical advisor to the commander and the staff. In this role, the battalion surgeon advises the battalion commander on the employment of the medical platoon and on the health of the battalion.

9-22. The battalion surgeon is also the supervising physician of the medical platoon's treatment squad. This officer is responsible for all AHS support provided by the platoon. For more information on the battalion surgeon, refer to FM 4-02 and ATP 4-02.4.

9-23. The battalion surgeon, the field medical assistant, and the platoon sergeant comprise the medical platoon headquarters. The members of the medical platoon headquarters coordinate with the battalion S-1 for AHS support activities in the battalion and those staff elements (for example, the battalion [S-3] and [S-4]) that affect battalion medical operations.

DUTY AND RESPONSIBILITY COMPARISON OF THE BRIGADE AND BATTALION SURGEONS

9-24. As discussed in paragraph 9-11, command surgeons at all echelons of command have similar duties and responsibilities. Table 9-1 through table 9-5 on page 9-5 through page 9-9 provide a brief overview of some of the duties and responsibilities, by focus area, the brigade and battalion surgeon will focus on and the difference in their perspective based on assigned duties.

Table 9-1. Health on the command duty and responsibility comparison

Brigade surgeon	*Battalion surgeon*
• Analyze data to determine emerging DNBI patterns. • Analyze data to determine emerging patterns of mild traumatic brain injury in the brigade. • Analyze data to determine patterns of COSR in the brigade. • Ensure health risk communications have command support. • Ensure subordinate commands are implementing work-rest cycles and have been acclimated to the environmental temperatures. • Ensure the health of the command is a priority and is communicated through the brigade commander and staff. • Establish guidelines for sleep plans within the brigade. • Monitor surveillance activities throughout the brigade. • Monitor the elements of the performance triad within brigade units to ensure health promotion activities are occurring. • Monitor the planning and implementation of predeployment and postdeployment health assessments. • Monitor the progress of brigade personnel when they enter the AHS throughout the roles of care and communicate the appropriate information to the commander. • Provide advice on methods to eliminate incidents of or reduce the severity of COSRs, mild traumatic brain injury, and DNBI.	• Coordinate and synchronize the COSC program with higher, adjacent, and subordinate units. • Ensure health risk communications have command support. • Ensure leaders have developed sleep plans and work-rest cycles for continuous operations. • Ensure the highest overall health of the unit possible in the OE. • Establish and conduct medical, occupational, and environmental health surveillance. • Implement health promotion programs (to include the performance triad—activity, nutrition, and sleep) and education within the battalion. • Provide advice to the commander concerning reduction and prevention of DNBI, mild traumatic brain injury, and COSR. • Provide Role 1 medical care from point of injury through the BAS and on to higher roles of care as required. The BAS is defined as the forward-most medically staffed treatment location organic to a maneuver battalion.

LEGEND

AHS	Army Health System	COSR	combat and operational stress reaction
BAS	battalion aid station	DNBI	disease and nonbattle injury
COSC	combat and operational stress control	OE	operational environment

Table 9-2. Training duty and responsibility comparison

Brigade surgeon	*Battalion surgeon*
• Ensure training of appropriate health and medically related subjects are conducted and reported to and with the proper elements within the brigade. • Forecast medical training requirements for both clinical and nonclinical medical personnel in the brigade. • Monitor and analyze training requirements for the medical personnel of the brigade. • Provide advice to the commander concerning training requirements for CBRN decontamination support for the brigade's medical treatment facilities and the requirement for identification and training of nonmedical personnel to perform patient decontamination tasks under the supervision of medical personnel. • Provide oversight of medical training.	• Conduct training for MASCAL operations. • Determine sustainment or refresher training requirements for medical personnel. • Ensure the Role 1 AHS support elements are trained to appropriately respond to the use or suspected use of directed energy weapons. • Ensure unit field sanitation teams are trained. • Provide appropriate training to elements of the command as required such as prevention and first aid for heat or cold injuries. • Provide Role 1 first responder training such as self-aid/buddy aid and CLS training for unit personnel. • Track and train medical and clinical skills of assigned medical personnel. • Track and train the utilization of the electronic HREC by assigned medical personnel. • Train assigned medical personnel in the use of medical communications for combat casualty care. • Train TCCC techniques to appropriate personnel, to include medical and CASEVAC procedures for assigned organic vehicles.

LEGEND

AHS	Army Health System	HREC	health record
CASEVAC	casualty evacuation	MASCAL	mass casualty
CBRN	chemical, biological, radiological, and nuclear	TCCC	tactical combat casualty care
CLS	combat lifesaver		

Table 9-3. Planning duty and responsibility comparison

Brigade surgeon	*Battalion surgeon*
• Communicate and coordinate AHS support, with EAB surgeons and AHS support elements. • Communicate to the commander, the AHS support plan for the brigade with potential HSS and FHP challenges identified, coupled with suggested remediation of those challenges. • Disseminate commander's intent to subordinate AHS support elements. • Ensure each subordinate unit in the brigade has an approved MASCAL plan or is integrated into the higher organization's plan. • Ensure the Class VIII distribution plan is adequate, and that resupply is possible through the combat trains. • Ensure the health threat, general threat, and medical intelligence considerations are communicated and integrated into the AHS support plan. • Ensure the MEDEVAC plan is sufficient for the operation and OE. • Identify and communicate medically related commander's critical information requirements. • Monitor and, when required, coordinate for AHS support for brigade operations with subordinate, adjacent, and higher AHS support elements. • Monitor contingency plans, such as reaction to MASCAL situations.	• Coordinate for AHS support resources such as a response to MASCAL with other AHS support elements in or in support of the brigade. • Determine sustainment refresher training requirements for medical personnel. • Determine the requirements for every operation conducted in the AO, such as ensuring adequate and timely ordering and resupply of Class VIII and the provision of an effective MEDEVAC plan. • Ensure MEDEVAC resources are responsive, flexible, agile, and synchronized to meet the myriad of operational challenges with the execution of the tactical plan. • Ensure unit medical assets are continually and appropriately pre-positioned based upon the OPLAN, OPORD and amended OPORDs as required. • Maintain unit AHS support throughout the AO; anticipate and respond when medical surge capability is required. • Plan and coordinate for MASCAL situations and ensure unit capabilities with support, if required, are adequate to meet potential MASCAL situations.

LEGEND

AHS	Army Health System	MASCAL	mass casualty
AO	area of operations	MEDEVAC	medical evacuation
EAB	echelons above brigade	OE	operational environment
FHP	force health protection	OPLAN	operations plan
HSS	health service support	OPORD	operations order

Table 9-4. Force health protection duty and responsibility comparison

Brigade surgeon	*Battalion surgeon*
• Advise the commander on the impact of the health threat on BCT elements and provide recommended techniques and procedures to defeat and minimize the health threat. • Analyze DNBI data to evaluate trends and patterns and make recommendations to the commander to reduce or eliminate the health threat. • Communicate with brigade and EAB COSC elements, ensuring a proactive response and adequate plan to ameliorate COSR. • Identify potential, medically related commander's critical information requirements as they pertain to the health threat, ensuring they are incorporated into the command's information requirements. • Monitor mild traumatic brain injury rates in the command and make recommendations where advisable to reduce these rates medically or proactively in the brigade. • Monitor the COSR level of the brigade; communicate and provide recommendations to the commander concerning responsive COSC for brigade elements.	• Anticipate COSR, and intervene with appropriate COSC response down to the squad and individual Soldier level. • Ensure CBRN FHP prescription products are on hand. Refer to DODI 6490.03. • Ensure COSC support is provided in a timely manner to every affected element in the battalion. • Ensure Soldiers employ personal personnel protective measures. • Ensure units have field sanitation teams and have all required essential supplies and equipment on hand. • Identify, assess, and report health threats to the brigade surgeon. • Oversee, monitor, and support unit DNBI reduction measures. • Provide mild traumatic brain injury reduction measures (screening) to include training to reduce mild traumatic brain injury.

LEGEND

BCT	brigade combat team	DNBI	disease and nonbattle injury
CBRN	chemical, biological, radiological, and nuclear	DODI	Department of Defense Instruction
COSC	combat and operational stress control	EAB	echelons above brigade
COSR	combat and operational stress reaction	FHP	force health protection

Table 9-5. Health service support duty and responsibility comparison

Brigade surgeon	*Battalion surgeon*
• Advise the brigade commander on the health status of the command and of the occupied or friendly territory within the commander's AO. • Determine the medical workload requirements (patient estimates). • Evaluate and interpret medical statistical data. • Maintain situational understanding by coordinating for current AHS information with surgeons of the next higher, adjacent, and subordinate headquarters. • Monitor blood requirements for the brigade. • Monitor MEDLOG resources of the brigade. • Provide advice concerning the health effects and response to the use of directed energy weapons. • Provide advice to the brigade commander on policy regarding eligibility of care of non-U.S. military personnel.	• Advise the battalion commander and the brigade surgeon concerning the health of the battalion and of the occupied or friendly territory within the battalion's AO. • Analyze the patient estimate, deploy Role 1 organizational medical assets to support the mission, and if necessary, coordinate through the brigade surgeons' section for additional Role 1 or Role 2 AHS support. • Determine and forecast assets based on operations, MEDLOG consumption and respond accordingly, reorder, cross level, or transfer Class VIII from one element to another. • Ensure all Role 1 AHS support personnel understand eligibility of care of non-U.S. military personnel. • Ensure appropriate medical response to the use or suspected use of directed energy weapons. • Task-organize and reconstitute the battalion's Role 1 AHS support elements when required.

LEGEND

AHS	Army Health System	MEDLOG	medical logistics
AO	area of operations	U.S.	United States

BRIGADE SURGEON SECTION

9-25. The medical personnel assigned to sustainment–S-4/MED TOE paragraph of the IBCT, ABCT, and SBCT are referred to as the BSS. The BSS is responsible for assisting the brigade surgeon in planning, coordinating, and synchronizing AHS support operations throughout the BCT's AO as discussed in table 9-1 through table 9-5 on page 9-5 through page 9-9. For augmentation of AHS assets, the BSS coordinates through the division surgeon's section with the medical force provider in the AO.

9-26. The brigade surgeon and the BSS should be the pivot point for all things medical in the brigade as they are responsible for producing the appropriate protection and sustainment annexes. The BSS, in coordination with the BSB SPO-MED and the BSMC, should develop a base Appendix 3 to Annex F prior to beginning the deployment process. For a sample format of Appendix 3 (HSS) to Annex F (Sustainment), refer to FM 6-0. Once the mission and operational variables are known, refinements to Appendix 3 (HSS) to Annex F (Sustainment) can occur through the orders process.

9-27. The BSS should focus on the "up and out" resourcing and the "down and in" AHS support planning of future operations of the BCT. When the operation planning is complete and the sustainment rehearsal is completed, the AHS support plan should be handed over to the BSB SPO-MED to be managed as a current operation. If additional changes to Appendix 3 to Annex F are needed, the SPO-MED should coordinate with the BSS and BSMC leadership to accomplish any changes through the orders process.

9-28. The ability of the surgeon section to run an AHS support rehearsal or medical synchronization meeting is dependent on experience and capabilities of the brigade surgeon and BSS. The sustainment rehearsal is normally co-facilitated by the BCT S-4 and BSB support operations section. Therefore, it is logical for the SPO-MED and brigade surgeon to co-facilitate the medical rehearsal. For more information on the BSS, refer to FM 4-02.

BRIGADE SUPPORT BATTALION, SUPPORT OPERATIONS MEDICAL

9-29. The SPO-MED is assigned to the support operations section of the BSB. The support operations section's mission is to synchronize the supply and services, fuel, ammunition, maintenance, AHS support, MA, and transportation operations for the brigade. The SPO-MED personnel (table 9-6) are assigned to the support operations section of the headquarters and headquarters company, BSB that is the principal staff section responsible for conducting support operations.

Table 9-6. Brigade support battalion, support operations medical personnel

AOC/MOS	*Grade*	*Title*	*Branch*	*Quantity*
70H67	O3	Medical Operations Officer	MS	1
70K67	O3	Medical Logistics Officer	MS	1
68W4O	E7	Operations Sergeant	NC	1

LEGEND
AOC area of concentration
MOS military occupational specialty
MS Medical Service Corps
NC noncommissioned

Note. The SPO-MED in the SBCT has an additional 68W4O.

9-30. The SPO-MED is the principal staff team responsible for synchronizing both FHP and HSS operations for the brigade. The SPO-MED primarily focuses on the preparation and execution of AHS support operations in the short-range planning horizon and prepares detailed health and medical input to OPORDs in support of brigade operations.

9-31. The support operations section focuses on the distribution of all classes of supply through logistics package operations. It is critical the SPO-MED team coordinates with the BSMC leaders and the BMSO to ensure Class VIII visibility and patient reporting is accurate and timely across the BCT.

9-32. The SPO-MED team will coordinate with the BSS to maintain the BCT medical common operational picture (MEDCOP) and ensure "down and in" mission requirements are being fulfilled. Prior to the start of all tactical operations and METT-TC (I) dependent, there should be a medical rehearsal or synchronization meeting focusing on the brigade's tactical employment of AHS capabilities. For more information on the MEDCOP, rehearsals, and synchronization meetings, refer to appendix A.

9-33. The medical rehearsal or synchronization meeting should occur immediately following the sustainment rehearsal. The ability of the surgeon section to run an AHS support rehearsal or medical synchronization meeting is dependent on experience and capabilities of the brigade surgeon and BSS. The sustainment rehearsal is normally co-facilitated by the BCT S-4 and BSB support operations. Therefore, it is logical for the SPO-MED and brigade surgeon to co-facilitate the medical rehearsal.

DUTIES AND RESPONSIBILITIES FOR THE SUPPORT OPERATIONS MEDICAL OPERATIONS OFFICER

9-34. The SPO-MED MEDO is the primary staff officer on the BSB staff who helps the support operations officer with planning and synchronizing AHS support operations and coordinating with the brigade staff. Tasks associated with this position include, but are not limited to—

- Considering the placement of all medical support assets in the brigade AO.
- Providing AHS support operations guidance and status to the BSB commander.
- Performing health threat analysis for BSB.
- Synchronizing FHP and HSS in the brigade AO.
- Receiving brigade medical statistics and coordinating EAB medical assets in brigade AO.
- Maintaining lateral and vertical communication with medical platoons, the BSMC, the BSS, and EAB medical organizations.

- Monitoring brigade FHP and HSS via warfighter information network tactical, also known as WIN-T, tactical communication node, or tactical communication node-light.
- Coordinating brigade taskings for the BSMC.
- Coordinating and tracking operational public health missions and assessments.

DUTIES AND RESPONSIBILITIES FOR THE SUPPORT OPERATIONS MEDICAL LOGISTICS OFFICER

9-35. The SPO-MED medical logistician is the primary staff officer on the BSB staff who helps the support operations officer with materiel management of medical supplies, medical device maintenance, and coordinating with the brigade staff. They are the brigade point of contact for medical communications for combat casualty care (MC4). Tasks associated with this position include, but are not limited to—

- Coordinating the ordering, receipt, and distribution of Class VIII and blood products in the brigade AO.
- Advising the BMSO on Class VIII authorized stockage list, packing lists, and movement of push-packages.
- Projecting Class VIII and recommending budget guidance.
- Tracking critical Class VIII supplies and medical device maintenance.
- Coordinating Class VIII movement with the support operations transportation section.
- Planning for use of captured medical Class VIII and equipment.
- Coordinating for regulated medical waste disposal. For further information on waste management and disposal, refer to ATP 4-25.12 and TM 3-34.56
- Advising the brigade surgeon and BSB commander on issues related to medical supply and equipment readiness.
- Coordinating for external MEDLOG support for organic units and supported units within the brigade AO.
- Developing support plans for optical fabrication, blood, medical device maintenance, and Class VIII supply support for the brigade.
- Coordinating resourcing of MEDLOG support.
- Providing oversight on aspects of BMSO operations and ensuring continuous synchronization with the brigade OPLAN.
- Managing equipment-fielding, modernization, and reset operations for the brigade in support of armed forces regeneration.

DUTIES AND RESPONSIBILITIES FOR THE SUPPORT OPERATIONS MEDICAL OPERATIONS SERGEANT

9-36. The SPO-MED operations sergeant is the primary staff NCO on the BSB staff who assists the medical operations and logistics officers in accomplishing their duties. Tasks associated with this position include, but are not limited to—

- Performing as a battle captain.
- Assisting in the military decision-making process as a primary operations NCO.
- Recognizing brigade and below and EAB medical organizations and capabilities.
- Assisting in development of the AHS support plan.
- Performing FHP and HSS planning in the current OE.
- Integrating HSS operational planning into the maneuver brigade COA development process.
- Coordinating medical regulating.
- Assisting in MEDLOG support planning.
- Assisting the SPO-MED by collecting all medical situation reports.
- Assisting in preparation and review of situation reports.
- Supporting development of the common operational picture.

- Producing, reviewing, refining, maintaining, and disseminating MEDCOPs according to unit SOP.
- Developing and maintaining the medical aspect of running estimates.
- Preparing a situational map.
- Constructing a map overlay.
- Conducting a rehearsal at battalion level.
- Conducting an operations synchronization meeting.
- Managing tactical information at battalion level.
- Employing common operational terms and graphics.
- Supervising information management in a CP.

DUTIES AND RESPONSIBILITIES FOR THE SUSTAINMENT AUTOMATION SUPPORT MANAGEMENT OFFICE PATIENT SERVICES NONCOMMISSIONED OFFICER

9-37. The patient services NCO assigned to the Sustainment Automation Support Management Office (SASMO) is the primary staff NCO responsible for ensuring the DCAM software is established and serves as the medical network administrator for the brigade. For additional information on the sustainment information systems, refer to ATP 4-0.6 on the requirements for—

- Formal training program.
- Training and techniques for sustainment information system support.
- Mandatory training requirements for the SASMO personnel reference.
- Sustainment Automation Support Management Office roles and responsibilities.

9-38. The SASMO personnel must obtain and maintain a Level One certification. Level One certification consists of—

- A+: Computing Technology Industry Association.
- Network+: Computing Technology Industry Association.
- System Security Certified Practitioner.
- Health Insurance Portability and Accountability Act training, as outlined in ATP 4-0.6, for personnel performing MC4 services.

9-39. The SASMO patient services NCO is not assigned to the SPO-MED; however, this position has been underutilized within the SASMO. With command discretion, allowing the patient services NCO to operate within the SPO-MED team will allow this NCO to perform duties as the medical network administrator and provide a level of medical regulating for the brigade. Coupling this NCO with one of the officers will allow for 24-hour operations for the SPO-MED staffed by an officer and an NCO.

MEDICAL COMPANY LEADER TEAM

9-40. The BSMC conducts most of the medical functions for the BCT. The BSMC commander and first sergeant are often the senior Medical Service Corps officer and health care NCO within the BCT. Their experience is an asset and a benefit for the other medical staff officers and NCOs, and it is prudent that they be consulted when planning AHS support operations for the BCT.

MEDICAL PLATOON LEADER TEAM

9-41. The medical platoon headquarters and the medical treatment squads are normally collocated forming the Role 2 MTF. The medical platoon has access to the battalion communications network providing access with all major elements of the battalion and with other supporting or supported units, and the medical platoon headquarters serves as the net control station for the platoon.

9-42. The treatment and evacuation platoon leader teams should be aware of how a maneuver medical platoon is employed. The mission of the treatment and evacuation platoons of the Role 2 is to forward deploy and augment, reinforce, or reconstitute the Role 1. For more information on medical platoon leader team and Role 1 medical platoon operations, refer to ATP 4-02.4.

PLATOON LEADER

9-43. The Role 2 has two platoon leaders authorized who are assigned to the treatment platoon and the evacuation platoon. The modified TOE assigned personnel (MAP), health care provider (62B) is assigned as the emergency physician in the medical treatment squad and identified on the TOE as the treatment platoon leader with a Medical Service Corps officer (70B) assigned as the evacuation platoon leader. The platoon leaders employ their platoon headquarters with support from their medical platoon sergeants.

9-44. The platoon leaders are responsible for both operational and clinical activities conducted by their platoons. The platoon leaders plan and execute Role 2 operations and advises the commander on issues concerning their platoons. The platoon leaders are the primary medical planner and the primary leaders for platoon operations, administration, and logistics. The platoon headquarters focuses on the planning, synchronization, and employment of the AHS support operations. The platoon leaders prepare and submit the medical situation report to higher headquarters. The platoon leaders submit updates to the medical common operating picture to higher headquarters and disseminate it to the medical platoons.

9-45. Due to the MAP provider's (62B) many responsibilities supervising the clinical function of the Role 2 MTF, the Field Medical Assistant (70B) may be designated as the treatment platoon leader. If the field medical assistant (70B) is designated as the treatment platoon leader, the field medical assistant assumes responsibility for the operational activities of the platoon while the MAP provider retains the responsibility of the clinical activities of the platoon.

FIELD MEDICAL ASSISTANT

9-46. According to the TOE, the field medical assistant is the operations and readiness officer for the treatment platoon. If designated by the command, the field medical assistant fills the treatment platoon leader's role. The field medical assistant generally carries out all the duties and responsibilities of the medical platoon leader. The field medical assistant works with the MAP provider and senior PA to ensure medical treatment and AHS support requirements are met for the brigade. This officer is the primary leader for medical platoon operations, administration, training, and logistics and assists the MAP provider in planning and directing Role 2 care for the brigade. As it pertains to medical training in a deployed environment, the field medical assistant ensures time is allocated for training (METT-TC [I] dependent) and assists in setting it up. The MAP provider or senior PA dictate what is to be trained.

Note. The remainder of this publication will discuss the roles and responsibilities of the leaders within medical platoons. When describing the responsibilities of the platoon leader, it will be referring to the Medical Service Corps officer. When describing the responsibilities of the physician, it will designate them as the battalion surgeon, field surgeon, doctor, or physician.

PLATOON SERGEANT

9-47. The medical platoon sergeant assists the platoon leader and supervises the operations of the platoon. The platoon sergeant plans and supervises the maintenance of platoon equipment. The platoon sergeant serves as the ambulance squad sergeant, supervising the activities and functions of the ambulance squad to include maintenance of ambulances and associated equipment. Requests for both general categories of supplies and Class VIII supplies fall under the purview of the medical platoon sergeant, including supply economy procedures and maintenance of authorized stockage of expendable supplies.

9-48. The platoon sergeant is responsible for the training of the Soldiers of the medical platoon and provides training and supervision of operational security procedures. The platoon sergeant uses or directs the use of the DCAM application for routine requisitions; however, the requests for fill to the supporting BMSO are accomplished by any means available. The medical platoon sergeant prepares reports of platoon activities and functions with the platoon leader or appropriate officer.

ARMY HEALTH SYSTEM LEADERSHIP RELATIONSHIPS

9-49. The AHS relationships and flow of information within the BCT consists of the BSS, the SPO-MED, the Role 1, and the Role 2. The AHS relationship follows the same pattern as the logistics relationships of the forward support company, the support operations officer, and the brigade S-4. The technical channel this relationship creates should focus on the synchronization and employment of AHS support assets from the forward line of own troops to the brigade rear boundary, which is accomplished through medical command and control. The SPO-MED, Role 2 commander, and Role 1 platoon leader will then use C2 to employ those capabilities through the orders process. Figure 9-1 depicts the execution (Role 1 and Role 2), synchronization (SPO-MED), and the coordination (BSS) relationship.

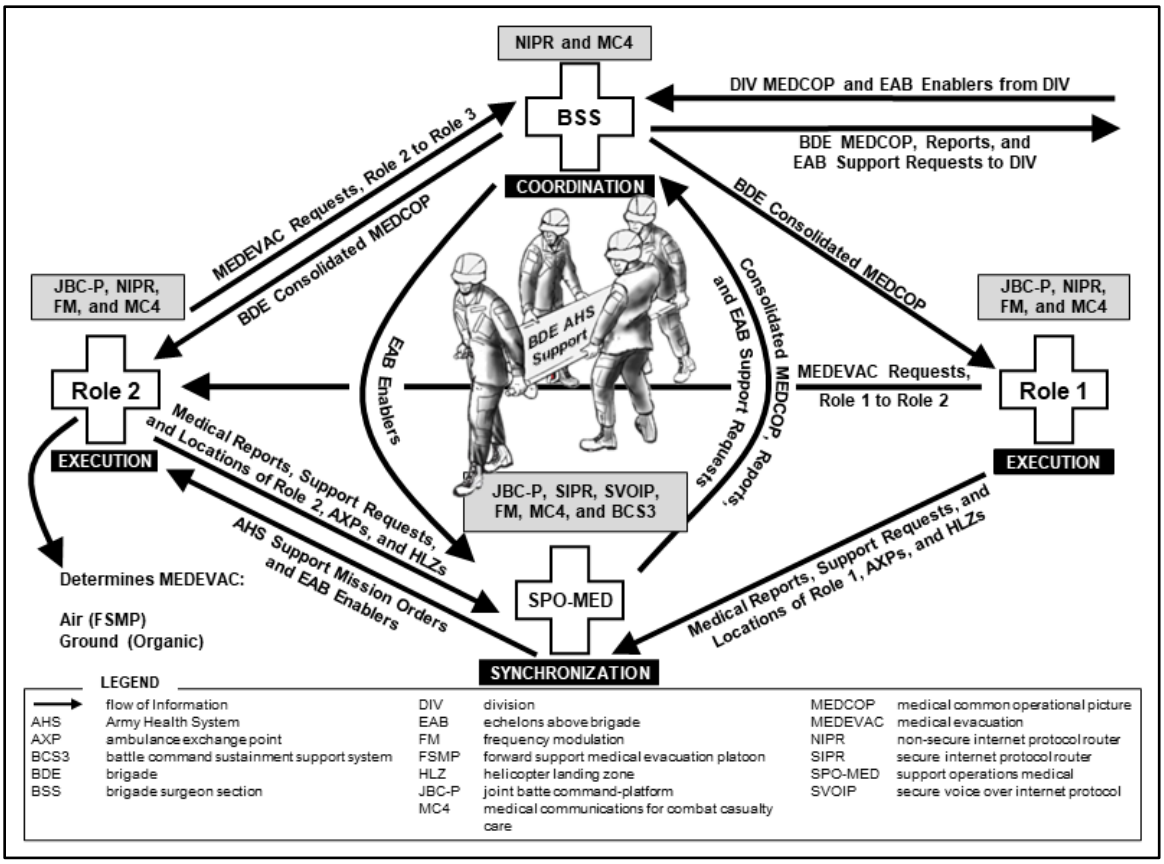

Figure 9-1. Brigade combat team Army Health System coordination, synchronization, and execution relationships

9-50. The AHS relationship is further broken down into coordination, synchronization, and execution. The coordinators concentrate on up and out. This entails working with the division surgeon, other brigade surgeons, coordinating for EAB medical assets per the orders process, and planning AHS support operations at the brigade level. Synchronizers take the FHP and HSS portions of OPORD and EAB assets received from the coordinator and synchronize AHS support across the BCT. Synchronizers normally concentrate on down and in. Executers receive the additional EAB medical assets from the division and are responsible for executing the FHP and HSS plan per the OPORD.

COORDINATION

9-51. Within the BCT the AHS coordinator is the BSS that works within the brigade main and tactical CPs. The BSS with the BCT consists of three personnel: the field surgeon (brigade surgeon), a medical operations officer, and a health care NCO. The main duties and responsibilities of the BSS are the coordination and planning of FHP and HSS within the BCT.

SYNCHRONIZATION

9-52. The SPO-MED is a team assigned to the support operations section of the BSB. The SPO-MED is staffed with three to four personnel: a medical operations officer, a MEDLOG officer, and one or two 68W operations NCOs. The main duties and responsibilities of the SPO-MED are the synchronization of FHP and HSS within the BCT.

EXECUTION

9-53. The Role 1 MTFs and Role 2 MTFs within the BCT are the executors of the AHS support plan and integrate additional EAB AHS assets within their units. The Role 2 MTF is responsible for providing Role 2 AHS support to supported maneuver battalions with organic medical platoons and providing both Role 1 and Role 2 medical treatment on an area basis to those units without organic medical assets operating in the BCT AO. The Role 1 MTF is responsible for establishing the BAS as far forward as possible, performing triage, and providing medical treatment within their capabilities. The Role 1 ambulance squad is responsible for evacuating patients from the forward battle area when required. The combat medic section of the Role 1 provides medical personnel for the two combat platoons in the headquarters company (scout and mortar) and each infantry rifle company to ensure patients are properly treated in the forward area.

Army Health System Information Flow

9-54. Within the BCT, information flow may be challenging due to limited communications platforms as there is disparity between the personnel, equipment assigned, and the physical location of the sections. The BSS is staffed with three personnel, does not have dedicated communication equipment, and must rely on those platforms located in the BCT main CP or the BCT administrative logistics operations center. The SPO-MED is staffed with three to four personnel, is collocated with the SPO, and has additional communications platforms available. The Role 2 has numerous personnel in the company headquarters, has several communications platforms to maintain situation awareness, and should be in contact with the DS ambulances that are attached with the Role 1 MTFs.

9-55. Information should flow from the executors (Role 1 and Role 2) to the SPO-MED who collects and synchronizes the AHS support for the BCT to the BSS for coordination with division. Medical reports, support requests, and location of the MTFs, AXPs, and HLZs are sent from the executors to the SPO-MED who then consolidates that information and creates the BCT MEDCOP. The consolidated medical reports, support requests, and BCT MEDCOP are then sent to the BSS for coordination. The BSS sends the consolidated medical reports, EAB support requests, and BCT MEDCOP to the division headquarters for action. The BSS disseminates the division MEDCOP and EAB enabler support to the subordinated organizations through the orders process.

9-56. The Role 2 should receive each MEDEVAC request from Role 1 MTFs or units without organic medical support in the BCT AO according to a published communication plan that is included in the BCT and Role 2 tactical SOP. Due to the increased communication platforms and personnel, the Role 2 is better postured to process and action a MEDEVAC request within the BCT. The Role 2 commander should be granted mission authority to process the MEDEVAC request. If the determination is made that the MEDEVAC request is a ground mission, the Role 2 commander should have launch authority for the ground platforms as they are organic to the Role 2. If the determination is made that the MEDEVAC request is an AE mission, the Role 2 commander should relay the mission to the FSMP first up aircraft who will process the mission to obtain launch authority according to the FSMP tactical SOP. Evacuation request from the Role 2 MTF to the Role 3 MTF should be processed through the BSS for coordination with EAB MEDEVAC organizations.

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Chapter 10
Medical Information Systems

Medical units have historically lacked trained operators who understand the networking and complete operations of the DMLSS and the MC4 networks and how those networks are employed in the medical unit. Networking and systems setup is not an easy task for most organizations.

SECTION I – MEDICAL INFORMATION SYSTEMS

10-1. The two common medical information system established at a Role 2 are the DMLSS and MC4. It has been observed during training exercises and early deployment that many units rely on a short-term solution of utilizing a contracted Field Service Representative who has experience in these scenarios. Units rely too heavily on Field Service Representatives, resulting in Soldiers never gaining the experience they need to solve the issues. The unit may have personnel who understand how a specific system (example DCAM) works but who do not know if there is a networking issue or even how to fix it. They may have a network operator who understands how to bring up the network but does not understand this system needs to talk to another server and there is something blocking or preventing access to that server.

10-2. The best solution is to have Soldiers trained to diagnose the issue. Units should train personnel so they understand the network or signal flow to facilitate the troubleshooting any issues that may arise while operationally employed. The SASMO patient services NCO is a critical link between the information system end user and the network administrators.

DEFENSE MEDICAL LOGISTICS STANDARD SUPPORT

10-3. The DMLSS is one of the Army medical information systems and is used at the Role 3 MTFs. Key capabilities of this system include requisition management, property accountability, biomedical device maintenance operations, and inventory management. It replaces the multitude of legacy Service-specific logistics systems with one standard DOD MEDLOG Army information system.

10-4. The DCAM is an electronic MEDLOG ordering tool that enables operational units to monitor medical supplies (Class VIII) and replenish levels when required. The BMSO in the BCTs usually manage the DCAM server for the BCT. The DCAM automates the medical materiel supply process at lower roles of care and allows non-logisticians to electronically view and order from supplier catalogs. The DCAM application is deployed as part of the Theater Medical Information Program-Joint (TMIP-J) software suite. The DCAM application also allows users to—

- Download and view supplier catalogs and free issue stock.
- Generate, monitor, and transmit supply orders.
- Track orders and inventory.
- Display medical materiel quality control messages.
- Reorder supplies automatically when items fall below normal operating levels.

MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE AND THEATER MEDICAL INFORMATION PROGRAM-JOINT

10-5. The MC4 system is the Army hardware component program that runs the Joint Operational Medical Information Systems, Theater Medical Information Program software in TOE units and operates on the Army

communications systems. Additional information on the MC4 system and system resources can be found on the Medical Communications for Combat Casualty Care portal website.

OVERVIEW OF MEDICAL COMMUNICATION FOR COMBAT CASUALTY CARE

10-6. The MC4 is a (semi-) ruggedized system-of-systems containing medical software packages fielded to operational medical forces worldwide. The system consists of joint software along with commercial and government-off-the-shelf products including TMIP-J applications provided the Program Executive Office, Defense Healthcare Management System. The TMIP-J applications include software for electronic HREC documentation, a web-based application that serves as a deployed electronic HREC repository, and a web-based application for conducting battlefield surveillance. Although the MC4 program does not create the software, the MC4 program does provide the tools needed to digitally record and transfer critical medical data from the foxhole to MTFs around the world. With more than a decade of experience managing the Army's deployable medical recording system, MC4 remains the most widely used, comprehensive information management medical system on the battlefield system. The MC4 system provides a—

- Army computer infrastructure to enable automated medical data collection and sharing throughout the roles of medical care (from the point of injury to the sustaining base, Role 4).
- Computer infrastructure for the Army's implementation of the Joint Operational Medical Information Systems software.
- Commanders at all roles of care with timely medical information and unit status information.
- Medical units with the capability to capture, store, and transmit high-density medical data to higher roles of care.

10-7. Deployable medical forces use the MC4 system to gain quick, accurate access to patient histories and forward casualty resuscitation information. The system provides units with automated tools facilitating patient and item tracking, blood management, medical reporting, and medical logistical support. Combatant commanders use the MC4 system to access medical surveillance information, resulting in enhanced medical situational awareness.

HARDWARE FOR MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE

10-8. Depending on the size of the unit and the mission, MC4 is fielded in a variety of hardware configurations. Organizations should reference their modified TOE and property book to determine their MC4 configuration authorizations. The hardware configurations can contain—

- Printers.
- Servers.
- Label makers.
- Laptops.
- Handheld devices.
- Industrial image scanners.
- Network enterprise printers.

OVERVIEW OF THEATER MEDICAL INFORMATION PROGRAM-JOINT

10-9. The MC4 system supports the documentation of patient medical care in deployed areas, provides for MEDLOG ordering and inventory management in Role 1 and Role 2, and enables local and medical command and control reporting capabilities to commanders and their staffs. The MC4 system accomplishes this by taking TMIP-J software, provided by the Joint Operational Medical Information Systems Program Management Office, and placing it on Army owned hardware provided by the MC4 Product Management Office. In addition, MC4 systems will be supported by SASMO. The TMIP-J software applications and functions currently on MC4 are—

- Armed Forces Health Longitudinal Technology Application-Tactical.
- Theater Medical Information Program-Joint Composite Health Care System Cache.
- Transportation Command Regulating and Command and Control Evacuation System.

- Theater Medical Data Store.
- Medical Situational Awareness in the Theater and its replacement, Medical Common Operating Picture.

10-10. The Armed Forces Health Longitudinal Technology Application-Tactical can reside on a laptop computer configured as a standalone server or on a large server. The application provides clinical encounter functionality that allows clinicians to diagnose, document care, and track illnesses at deployed locations. It handles the recording and reporting of individual and mass immunizations for the theater environment. Completed encounters are stored locally, sent to Theater Medical Data Store and automatically imported into Medical Situational Awareness in the Theater, and forwarded to the clinical data repository where the patient's longitudinal electronic medical record is stored.

10-11. The TMIP-J Composite Health Care System Cache system is used to document inpatient health care and outpatient order entry and results retrieval. Completed encounters are stored locally and sent to Theater Medical Data Store. The TMIP-J Composite Health Care System Cache has a store-and-forward capability.

10-12. The Transportation Command Regulating and Command and Control Evacuation System is used by Role 3 hospitals. It provides patient transportation information and in-transit visibility to the defense transportation community and medical support information to Role 3 hospitals through a website accessible application. This application passes information to Medical Situational Awareness in the Theater for viewing in-transit visibility information.

10-13. The Theater Medical Data Store serves as the theater database for collecting, distributing, and viewing Service members' pertinent medical information. It provides one central location for health care providers to view theater medical data. The Theater Medical Data Store views and tracks ill or injured patients as they move through the theater levels of care, sustaining base MTFs, and those shared with the Department of Veterans Affairs. The Theater Medical Data Store updates the clinical data repository, where all Service members' electronic HRECs reside.

10-14. The Medical Situational Awareness in the Theater and its replacement, Medical Common Operating Picture, are web-based Secret Internet Protocol Router Network applications that combine information from multiple communities to provide decision support and a common operating picture. The application links together information that encompasses DNBIs, physical and psychological trauma, patient tracking, chemical and biological threats, environmental and occupational health, intelligence, medical command and control data, personnel, unit locations, and weather.

10-15. An excellent source of information about MC4 is the Commander's Guide to MC4. This all-inclusive reference guide provides military leaders with the information necessary to set up and maintain effective C2 of their MC4 systems to enable their units to create comprehensive, lifelong electronic medical records for all deployed Soldiers. The MC4 Commander's Guide can be accessed on the U.S. Army Acquisition Support Center website. The MC4 webpage is a source for additional information on the applications, hardware, and available training.

10-16. In addition, MC4 systems will be supported by the SASMO. The nine MC4 TMIP-Army software applications and functions are the—

- Defense Medical Logistical Support System—Assemblage Management used for medical resupply, logistics inventory management, assemblage management, and product identification and storage.
- Health surveys used for postdeployment assessments.
- Immunization Tracking System used to record and report immunizations.
- Local database used for medical records consolidation and collection.
- Lower Echelon Reporting and Surveillance Module used for patient tracing, evacuation, visibility, status reporting, and treatment.
- Medical Reference Component used as a medical reference library.
- Patient Encounter Module used for patient encounter data collection.

- Personal Information Carrier used to store and transport personal medical information.
- Theater Medical Data Store has replaced the Defense Blood Standard System used for blood products inventory, requisitioning, movement, tracking, and storage.

10-17. To maintain the MC4, the SASMO personnel must be Health Insurance Portability and Accountability Act (HIPAA) trained. The HIPAA Privacy Rule establishes national standards to protect individuals' medical records and other personal health information. It applies to health plans, health care clearinghouses, and those health care providers who conduct certain health care transactions electronically. The HIPAA Privacy Rule requires appropriate safeguards to protect the privacy of personal health information and sets limits and conditions on the uses and disclosures that may be made of such information without patient authorization. It also gives specific rights to patients regarding their health information, including rights to examine and obtain a copy of their HRECs and to request corrections.

10-18. Additional information on HIPAA training is contained in ATP 4-0.6. The following DOD publications govern requirements for personnel who encounter personally identifiable information or personal health information:

- *Department of Defense Privacy Program* (DOD 5400.11-R).
- *Security of Individually Identifiable Health Information in DOD Health Care Programs* (DODI 8580.02).
- *Implementation of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule in DOD Health Care Programs (*DODM 6025.18).
- *Health Insurance Portability and Accountability Act of 1996 (*Public Law 104-191).

SECTION II – EMPLOYMENT OF THE MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE SYSTEM

10-19. The MC4 system links the deployed Army health care providers, diagnostic systems, and organizations into a seamless AHS diagnostic, treatment, MEDEVAC, and unit medical status capability. The MC4 system links the HSS and FHP functions of the AHS across the roles of care and operations from deployed units to the Role 4 sustainment base and AHS leadership nodes. Support for MC4 employment into the operational area begins during predeployment operations with continual support and training throughout the duration of deployment. The support and training enable comprehensive AHS support across the ten medical functions, coupled with accurate and complete longitudinal HRECs for every deployed Soldier.

UNIT-LEVEL ADMINISTRATOR

10-20. The unit-level administrator is an individual assigned to a medical unit with the primary or secondary duty of providing maintenance support for the MC4 systems. The commander or officer in charge should appoint a unit-level administrator with the responsibility for executing MC4 sustainment and support. Areas of responsibility include—

- Completing and maintaining health insurance portability and accountability act training.
- Completing Level 1 information assurance security officer training.
- Attending the MC4 unit-level administrator sustainment and troubleshooting course.
- Setting up and maintaining all system user accounts.
- Performing Tiers 1 and 2 routine maintenance of backups, databases, transmission applications, and log files to ensure optimal system operability.
- Performing Tiers 1 and 2 troubleshooting of the MC4 systems.
- Reporting all MC4 system-related issues to the MC4 technical support teams and informing the commander of ongoing or related issues.

SUPPORT FOR MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE EMPLOYMENT DURING PREDEPLOYMENT OPERATIONS

10-21. Periodically, and particularly prior to deployment, units should evaluate their training, equipment, and personnel readiness. Detailed preparation and training during the predeployment phase ensure units arrive in the operational area ready to complete their MC4 mission. The following types of training are available:

- New equipment training is the initial transfer of knowledge on the operation and maintenance of new and improved equipment with associated software from MC4 to the user.
- Computer and web-based training products are available for individual self-development. Training is available on the MC4 website (see the reference section of this publication).
- Collective training includes training at home station, training at combat training centers, and training while deployed.
- Institutional training may be found at professional development courses at institutions such as the U.S. Army Medical Center of Excellence and the Uniformed Services University of the Health Sciences. These courses familiarize personnel with MC4 prior to new equipment training and assist in sustaining MC4 knowledge and skills.

SUPPORT FOR MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE EMPLOYMENT DURING DEPLOYMENT

10-22. Medical communications for combat casualty care support will vary in the operational area dependent upon the duration of the operation and resources available. The support for MC4 may consist of—

- Mobile training support teams.
- Distributed learning materials.

Note. These learning materials are available on the Army Training Network 2 Go application. The application software is available from the Army Training Network. Refer to the MC4 website for further information concerning distributed learning and other learning modalities.

DEPLOYED MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE AT ROLES 1 AND 2

10-23. The MC4 system is used at MTFs that vary in size, employment, amount, and type of care provided. A Role 1 and Role 2 varies significantly from a Role 3 MTF; therefore, not all MC4 software components are necessary at every MTF. The Theater Medical Information Program Composite Health Care System Cache and the large Armed Forces Health Longitudinal Technology Application-Tactical servers are located at Role 3 MTF; however, they serve Role 1 and Role 2 patients as they transit through the roles of care from Role 1 through intervening roles of care up to Role 4.

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Appendix A

Army Health System Support Estimates, Planning, and Rehearsals

The AHS support planning process is unique in the number and complexity of services and support Army Medicine provides. From estimating the number and types of casualties, to planning for MEDEVAC, food inspections, and the support requirements for the treatment of combat injuries and diseases, the medical planner must bring together the numerous medical functions required to support the mission.

To effectively execute AHS support operations to support the tactical commander, comprehensive planning and thorough coordination and rehearsal with all elements participating in the operations is essential. To ensure the continuum of care from the point of injury or wounding through successive roles of care is uninterrupted, medical treatment and MEDEVAC must be synchronized with all medical functions considered and planned for within the operations process.

SECTION I – ARMY HEALTH SYSTEM SUPPORT ESTIMATE

A-1. Staff medical planners prepare AHS support estimates based on their areas of expertise to assist the commander in decision making. An estimate includes significant facts, events, and conclusions based on current or anticipated situations and provides recommendations on how available resources can best be used (figure A-1 on page A-2). Adequate AHS support plans are dependent on early and continuing estimates by the battalion staff and medical company commanders. Failure to develop these estimates may lead to errors and omissions in developing a COA. For information on the development of estimates, refer to ADP 5-0, ATP 4-02.42, and ATP 4-02.55. The recommendations provided by the staff planners are used by the commander to—

- Identify and eliminate from consideration the COA that are not feasible.
- Select the best COA for further analysis.

1. Mission analysis.
    a. Mission and intent of commander two levels up.
    b. Mission and intent of immediate commander.
    c. Assigned tasks (specified and implied).
    d. Constraints and limitations.
    e. Mission-essential tasks.
    f. Restated mission.
    g. Tentative time schedule.
2. Estimate the situation and determine courses of action.
    a. Terrain and weather.
        (1) Terrain—observation and fields of fire concealment and cover, obstacles, key terrain, and avenues of approach.
        (2) Weather—visibility, mobility, and survivability.
    b. Enemy situation and courses of action.
        (1) Composition.
        (2) Disposition.
        (3) Recent activities.
        (4) Capabilities.
        (5) Weakness.
        (6) Most probable COA (enemy use of METT-TC [I]).
        (7) Most dangerous courses of action.
    c. Friendly situation—METT-TC (I).
    d. Friendly courses of action. Develop a minimum of two.
3. Analysis of courses of action.
    a. Significant factors.
    b. War game.
4. Comparison of courses of action.
5. Decision.

LEGEND

COA	course of action	METT-TC (I)	mission, enemy, terrain and weather, troops and support available, time available, and civil considerations with informational considerations

Figure A-1. Estimate of the situation

A-2. The Army G-1 adopted the Joint Medical Planning Tool (JMPT) as the tool of record for casualty estimation. The AHS support estimate is derived from the casualty estimate. Personnel, medical, and sustainment planners should be familiar with JMPT when conducting casualty estimation planning for military operations. The JMPT Course is a five-day, classroom only course that provides hands-on training on the JMPT, as well as the Medical Planner's Toolkit. Through a series of exercises that utilizes the crawl, walk, run methodology, students will utilize the JMPT and Medical Planner's Toolkit to develop a model that demonstrates the flow of patients from the point of injury through definitive care, implementing planning and logistics strategies for operational missions. For more information on the JMPT course contact Joint Medical Operations course by email at: dha.jbsa.j7.mbx.jmop@mail.mil.

A-3. Regardless of the level of command, the military decision-making process remains unchanged; however, the level of detail and the means of communicating (verbal or written) will differ. At the medical company level, many procedures are already set forth in TSOPs, thereby effectively limiting the level of detailed input required for preparation of the estimate. Although the level of detailed information contained in this appendix is considerable, it is provided for illustrative and educational purposes and should not be considered all inclusive. In the medical company situation, for example, the AHS support estimate for medical company operations may be verbal since TSOPs cover routine activities; however, the BSMC commander may be required to provide a formal written estimate to the BSB support operations for inclusion in the BSB estimate. Additionally, the brigade surgeon may be required to provide formal written input for inclusion in the brigade estimate. For additional information on the AHS support estimate, refer to ATP 4-02.42 and ATP 4-02.55.

A-4. Course of action development, analysis, and wargaming are accomplished after mission analysis. Course of action development and wargaming result in the production of the OPORD and the AHS annexes of the supported units. The commander uses these recommendations to determine and select the best COA. Products of the mission analysis will be restated in the unit mission, which becomes paragraph 2 of the OPORD. The following questions provide examples for assessing key areas during this process:

- Were casualty estimates developed (is the breakdown to the lowest level possible, by TF, by phase line, or other control measures)?
- Were task organizations established (if required, are they different from habitual support relationships)?
- What is the range of enemy indirect fire weapons as they affect AHS assets?
- What are the high value targets for enemy CBRN attacks?
- What actions are being implemented if required to combat the health threat?
- What is the current AHS slant (maintenance status on all unit's key items of equipment, both medical and nonmedical)?

A-5. Once the supported units receive their OPORD, they conduct mission analysis and decide their scheme of maneuver. Part of deciding their scheme of maneuver is the placement of medical treatment units. This information is coordinated with the battalion S-3 (medical plan and operations), which reviews the plans from the battalion-level perspective. The battalion S-3 will issue the battalion OPORD for the medical company and attached units based on the higher headquarters OPLAN or OPORD.

A-6. The battalion OPORD is issued by the higher headquarters for the battalion. The battalion S-3 staff is responsible to the battalion commander for staff supervision of the battalion's AHS support operations. The S-3 is also responsible for coordinating the DS relationships of organic medical units and medical elements OPCON or attached to the supported units. The battalion commander oversees AHS support operations and ensures the supported units are provided adequate support.

A-7. The TMC or MEDBDE (SPT) OPLAN and OPORD, when published, are developed by the operations section using input from each of the staff elements of the headquarters and input from subordinate units. The OPLAN may be revised or updated as required based on mission analysis or changes in AHS requirements.

RESPONSIBILITIES

A-8. After the commander provides planning guidance, the surgeon should prepare estimates of requirements and descriptions of projects to be undertaken for establishing adequate AHS support to the mission. The surgeon makes an AHS support estimate that may stand alone or that may be incorporated into the personnel estimate.

A-9. The estimate forms the basis for the subsequent AHS support plan. The estimate is a logical and orderly examination of all the factors affecting the accomplishment of the mission to determine the most suitable COA. All the significant AHS support possibilities that can affect the accomplishment of the tactical commander's mission must be considered. The AHS support estimate, along with estimates of the other individual staff members, is used by the commander in preparing an estimate. It provides the information on which to base the commander's selection of the best COA. This decision is then included in the operational and logistics support plans.

FORMAT FOR THE ESTIMATE

A-10. A sample format for an AHS support estimate is presented in ATP 4-02.55. This format applies to any level of command and can be used under any operational condition. The format for the estimate should be considered more as a tool to assist the planner than as a rigid format that might complicate the task. The format is not to be considered as an all-inclusive listing but rather as a starting point for consideration.

A-11. The AHS support estimate is lengthy and includes more details than necessary in some situations. Depending on the situation and the unit for which the estimate is being completed, organic capability of certain medical functions may not exist. The estimate should include these areas, as support or augmentation from corps assets may be required, such as COSC and veterinary services. Each AHS support planner must tailor the estimate to meet their needs. The estimate is a continuous process; as the battle continues, new factors and COA are developed and impact on the estimate.

A-12. Before the AHS support estimate is completed, the commander (or surgeon) starts to prepare the AHS support plan. As each problem is recognized and solved, a part of the plan is automatically defined. Once the estimate is completed, it defines requirements, identifies sources, and determines policies and procedures.

A-13. Staff estimates may be presented orally or in writing. Often only the staff officer's conclusions or recommendations are presented to the commander.

A-14. Depending on the level of command, separate estimates may also be made for the dental, operational public health, veterinary, and COSC medical functions. For information on these estimates, refer to ATP 4-02.55. For additional information on the unique aspects of planning for medical operations in peacetime and conflict, refer to ATP 4-02.42.

SECTION II – ARMY HEALTH SYSTEM SUPPORT PLAN

A-15. The extended battlefield stretches AHS capabilities to the maximum. It presents unprecedented challenges to the AHS support planner as well as to the tactical commander. It is imperative that the AHS support planner be involved in the initial stages of the tactical commander's planning process. A thorough understanding of the tactical commander's plan is necessary for the AHS commander to support the tactical commander during the absence of orders or communications. For additional information on the planning for AHS support, refer to ATP 4-02.42 and ATP 4-02.55. For Army formatting and administrative information pertaining to the preparing of plans and orders, refer to ATP 4-02.55, FM 5-0, and FM 6-0.

A-16. Army Health System support planning is an intense and demanding process. To ensure effective support, the AHS support planner must stay abreast of the tactical commander's plans and objectives. This ensures the AHS support plan provides the flexibility to meet changes in the AHS support 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. The AHS support planner must know what the organic capabilities of the supported units are and—

- When and where the unit will execute the mission.
- How the unit will execute the mission.
- What threat the unit faces.

A-17. The AHS support planners must anticipate possible actions to plan for positive and responsive support to each element supported. The AHS support planner must be prepared to meet the requirements for—

- Medical command and control (FM 4-02 and ATP 4-02.55).
- Medical treatment (organic and area support) (FM 4-02, ATP 4-02.4, and TC 4-02.1).
- Hospitalization (ATP 4-02.10).
- Medical evacuation to include medical regulating and the training of nonmedical personnel to serve as litter bearers (ATP 4-02.2 and ATP 4-02.13).
- Army MEDLOG to include blood management as well as medication storage and handling (ATP 4-02.1).
- Dental services (ATP 4-02.19).
- Operational public health (ATP 4-02.8, ATP 4-25.12, and TC 4-02.3).

- Combat and operational stress control (ATP 4-02.8).
- Veterinary services (ATP 4-02.8).
- Medical laboratory services to include both environmental and clinical laboratories (FM 4-02 and ATP 4-02.8).

A-18. Medical planners must be able to plan for a MASCAL—when large numbers of casualties are produced in a relatively short time. A MASCAL may exceed local AHS capabilities. Key factors for effective MASCAL management are on-site triage, TCCC, effective communication, and skillful evacuation by ground and air resources to ensure—

- Medical units are maximizing the use of available resources, prioritizing missions, and achieving the objective of providing the greatest good for the greatest number of patients.
- Medical personnel are freed from nonclinical duties.
- Nonmedical personnel can serve as litter bearers, perform rescue operations, or perform other nonmedical tasks, as required.

A-19. The commander has overall responsibility for the development of the AHS support plan. The S-3 is the primary staff element involved with coordinating and collecting information from other staff elements and subordinate units that will be used to develop the plan. Army Health System support estimates developed by the staff and subordinate units are provided to the TMC or MEDBDE (SPT) for use in developing the AHS support estimates for the corps or theater. All factors must be considered during the initial development stages of the AHS support plan. The AHS support plan is updated as required to meet tactical or AHS operational requirements. The commander should consider the following factors when developing and reviewing the AHS support plan or providing input to the higher headquarters' AHS support plan:

- Mission.
- Rules of engagement.
- Threat.
- Force protection.
- Medical command or MEDBDE (SPT) estimates, guidance, and intent.
- Operational conditions.
- Operational constraints.
- Terrain and environmental factors (weather).
- Military population supported to include allied and host nation.
- Personnel status (medical company headquarters and subordinate elements).
- Equipment status of the medical company.
- Supply status (Class VIII and nonmedical).
- Host-nation support.
- Medical command, control, communications, computers, and intelligence.
- Training status.
- Current health status of supported units.
- Casualty estimates.
- Medical evacuation and medical regulating requirements.
- Medical evacuation capabilities.
- Hospitalization.
- Combat and operational stress control requirements.
- Laboratory service support.
- Veterinary service support.
- Operational public health requirements.
- Echelons above brigade assets in support of the medical company.
- Additional support requirements.
- Special operations requirements.
- Record and report requirements.

- Phases of operations.
- Courses of action.
- Information requirements (commander critical information requirements such as medical intelligence updates, maps, and essential elements of friendly information updates).
- Blood status.
- Policy and procedure updates.
- Humanitarian aid to local nationals.
- Potential enemy prisoner of war support requirements.
- Potential civilian and refugee actions.

Note. An in-depth discussion of the planning process and the considerations for AHS support operations is provided in ATP 4-02.42 and ATP 4-02.55

PRINCIPLES

A-20. The AHS principles of conformity, mobility, proximity, flexibility, continuity, and control form the underpinnings upon which every AHS support plan is developed (see paragraph 1-19 on page 1-5). The principles guide medical planners in developing an effective, efficient, flexible, and executable OPLAN. The AHS support plans are designed to support the operational commander's scheme of maneuver while still retaining a focus on the delivery of health care.

OPERATIONAL MEDICINE BATTLE RHYTHM

A-21. The AHS support plan must conform to the tactical commander's operations plan, and the AHS support planner must thoroughly understand the commander's intent, concept of operation, and provided guidance. The operational medicine battle rhythm is that of the tactical commander.

A-22. Casualties begin to occur immediately upon engagement with the enemy or potentially sooner, such as during preparations for operations or movement to the line of departure. Due to the necessity to perform lifesaving interventions for Soldiers suffering combat trauma within minutes of wounding or injury, medical resources must be arrayed in proximity to the forces supported. This permits the medical assets to rapidly clear the battlefield of casualties and enhances the tactical commander's ability to quickly take advantage of opportunities that present themselves during the battle.

MOBILITY, SURVIVABILITY, AND SUSTAINABILITY

A-23. Medical units operate across the battlefield and across all of types of terrain. In order for the medical Soldier and medical units to successfully accomplish their mission, medical personnel, vehicles, and equipment must have the same mobility, survivability, and sustainability of those elements used by the fighting force they are supporting. Without comparable vehicles and equipment, the medical force will be unable to maintain the pace set by the combat forces. This may result in lengthening lines of communications, longer MEDEVAC distances, and longer response times to provide initial lifesaving interventions at the point of injury or wounding. Sustainability of vehicles has been an issue in recent operations with mixed fleets of vehicles requiring varying maintenance support, different repair parts, and in some cases, equipment repairers with specialized skills and knowledge.

SCARCE MEDICAL RESOURCES AND TASK ORGANIZATION

A-24. Due to the limited medical capabilities within the operational area, care must be taken to ensure scarce medical resources are employed in a manner that optimizes their effectiveness and efficiency and maximizes the numbers of patients treated. To realize this goal, AHS support plans must be flexible to stay abreast with changing situations on the battlefield, and the medical commander or command surgeon must be empowered to task-organize medical resources and relocate and reallocate these resources to shifting areas of patient density.

A-25. In fluid operations, units in contact will normally be experiencing the highest combat trauma rates, which require increased surgical capability to stabilize nontransportable patients to withstand the rigors of a lengthy evacuation. To provide the required surgical capability needed, the medical commander may have to move an FRSD collocated with a medical company, that is not in contact with the enemy, to augment the unit in contact.

MEDICAL CONCEPT OF SUPPORT PLANNING

A-26. The challenging step for the medical company leaders is to establish their own AHS support plan while synchronizing it with the brigade's support plan and the maneuver battalion's support plan. The medical company leaders should fully understand the Role 1 MTF's plan. This can be accomplished using a medical synchronization sketch (matrix) and medical synchronization meeting as well as by the medical company leaders attending the combined arms rehearsal and sustainment rehearsals. The medical company leaders must ensure the Role 2 AHS support plan is synchronized both at the lower level with the maneuver battalions but also at the higher level with the brigade's concept of support.

A-27. Regardless of what echelon of command AHS support planning occurs the process follows the same general steps. However, at each echelon of command, there are different considerations, and each of the considerations must be analyzed and have action taken against it. For example, a maneuver battalion medical platoon does not need to consider the establishment of an emergency push-pack distribution system for the tactical combat medical care assemblages; however, the medical company may have to consider establishing procedures and orders to accomplish this distribution task.

A-28. The AHS principles are used by all medical planners when developing concepts of support and running estimates during the military decision-making process. The following are additional areas for medical planners to consider during the military decision-making process:

- Step 2 Mission Analysis.
  - Medical intelligence preparation of the battlefield.
  - Health threat(s).
  - Initial patient estimate.
  - Treatment and evacuation running estimates.
- Step 3 COA Development.
  - Medical concept of support for each COA.
  - Refined patient, treatment, and evacuation estimate for each COA.
- Step 4 COA Analysis.
  - Identify medical actions, reactions, and counteractions.
  - Identify medical risks associated with each COA.
- Step 7 Order Production, Dissemination, and Transition.
  - Complete HSS Plan.
  - Contribution to Annex E (Protection).
  - Contribution to Annex F (Sustainment).

A-29. During the military decision-making process the AHS plan should be synchronized from the forward line of troops through the BCT rear area. As part of the orders process, medical planners must establish a MEDCOP that should include—

- Casualty collection points.
- Role 1 (Treatment Team A and Treatment Team B) locations and timelines.
- Ambulance load points that facilitate the ambulance shuttle system.
- Evacuation routes (clean and dirty).
- Patient decontamination points (if not collocated with operational decontamination).
- Role 2 locations and timelines.
- Role 3 locations and timelines.

PROXIMITY PLANNING

A-30. Proximity is to provide AHS support to sick, injured, and wounded Soldiers at the right time and the right place and to keep morbidity and mortality to a minimum. Army Health System support assets are placed within supporting distance of the maneuver forces they are supporting but not close enough to impede ongoing operations. To support the operational commander's plan, it is essential that AHS support assets are positioned to rapidly locate, acquire, treat, stabilize, and evacuate combat casualties. Peak workloads for AHS resources occur during combat operations. This section will discuss how to plan for proximity utilizing the surface evacuation range fan (SERF) tool.

TIME AND DISTANCE ANALYSIS

A-31. Conducting time and distance analysis is a critical process to executing effective evacuation of patients. The results of the initial analysis will establish foundational planning factors for placing roles of care and efficiently employing ground and air evacuation platforms. Figure A-2 depicts the basic formula for calculating time from a known distance and speed.

$$\text{Time} = \left(\frac{\text{Distance}}{\text{Speed}} \right)$$

Figure A-2. Time, distance, and speed formula

A-32. Distance divided by speed equals time in hours, as speeds are generally stated in miles or kilometers per hour. The decimal portion of the result is a fraction of one hour. Multiply this decimal portion by 60 to determine the number of minutes. Figure A-3 depicts an example of this calculation.

$$\frac{\text{108 kilometers}}{\text{40 kilometers per hour}} = \text{2.7 hours} \rightarrow \begin{cases} \text{2 hours} \\ \text{0.7 hours x 60 min} \end{cases}$$

2 hours 42 minutes

Figure A-3. Time calculation

SPEED CONVERSIONS

A-33. The unit of measurement for distance must be the same unit of measurement for speed when calculating for time as depicted in figure A-3 (for example, a calculation for time with a known distance given in kilometers requires a speed unit of measurement given in kilometers per hour [KPH] and a calculation for time with a known distance given in miles requires a speed unit of measurement given in miles per hour [MPH]). Military operation distances are often given in kilometers; however, speeds of evacuation vehicles are often calculated as miles per hour (MPH) except for aircraft, which use knots. Most speed conversions conducted at brigade and battalion levels of medical planning will consist of ground assets in MPH.

A-34. To convert MPH to KPH use the formula: MPH × 1.6 = KPH. An example of this conversion is 25 MPH × 1.6 = 40 KPH. The exact number of kilometers to miles is 1.609344 kilometers to 1 mile. Simplifying the conversion to 1.6 will produce an accurate, manageable outcome for planning in restrictive timelines. To quickly convert between MPH, KPH, or knots, the same formula is used; however, multiply by the appropriate conversion factor in table A-1 on page A-9.

Table A-1. Speed conversion factors

	MPH	*KPH*	*Knots*
MPH	1	1.609	0.869
KPH	0.621	1	0.539
Knots	1.151	1.852	1
LEGEND KPH kilometers per hour MPH miles per hour			

TIME FACTORS

A-35. When actual average travel speeds are known, they should be used. Table A-2 provides an initial reference sheet completing the above calculations with distance in kilometers and speed in MPH.

Table A-2. Time and distance calculations

TIME in minutes		*SPEED Miles per hour* 10	15	20	25	30	35	40	45	50	55	60
DISTANCE Kilometers	***1***	4	3	2	2	1	1	1	1	1	1	1
	5	19	13	9	8	6	5	5	4	4	3	3
	8	30	20	15	12	10	9	8	7	6	5	5
	10	38	25	19	15	13	11	9	8	8	7	6
	15	56	38	28	23	19	16	14	13	11	10	9
	20	75	50	38	30	25	21	19	17	15	14	13
	25	94	63	47	38	31	27	23	21	19	17	16
	30	113	75	56	45	38	32	28	25	23	20	19
	35	131	88	66	53	44	38	33	29	26	24	22
	40	150	100	75	60	50	43	38	33	30	27	25
	45	169	113	84	68	56	48	42	38	34	31	28
	50	188	125	94	75	63	54	47	42	38	34	31
	55	206	138	103	83	69	59	52	46	41	38	34

A-36. When the actual travel speed is unknown, the following time factors are planning estimates according to ATP 4-02.55 for—

- Litter squads are—
  - Four-person squad over average terrain, 900 meters and return in 1 hour.
  - Six-person squad over mountainous terrain, 350 meters and return in 1 hour.
- High mobility multipurpose wheeled vehicle and mine-resistant ambush protected ground ambulances on—
  - Improved road, 45 MPH.
  - Unimproved road, 30 MPH.
- Stryker MEDEVAC vehicle on—
  - Improved road, 60 MPH.
  - Cross country, 40 MPH.

SURFACE EVACUATION RANGE FAN

A-37. The SERF is a tool to use for rapid time and distance analysis. The SERF is a visual representation drawn on a map of potential straight-line ground evacuation time and distance to quickly gauge medical

coverage. It can be useful for AHS support planners to analyze evacuation coverage areas and AXP placement.

Note. The figures depicting the construction and use of the SERF are not to scale with the map graphic and are only used to graphically depict the procedures.

A-38. This graphic tool is used in two ways:

- Point SERF (figure A-4). Drawing a SERF from a current or potential location out of the role of care to visualize the potential or current medical coverage area.

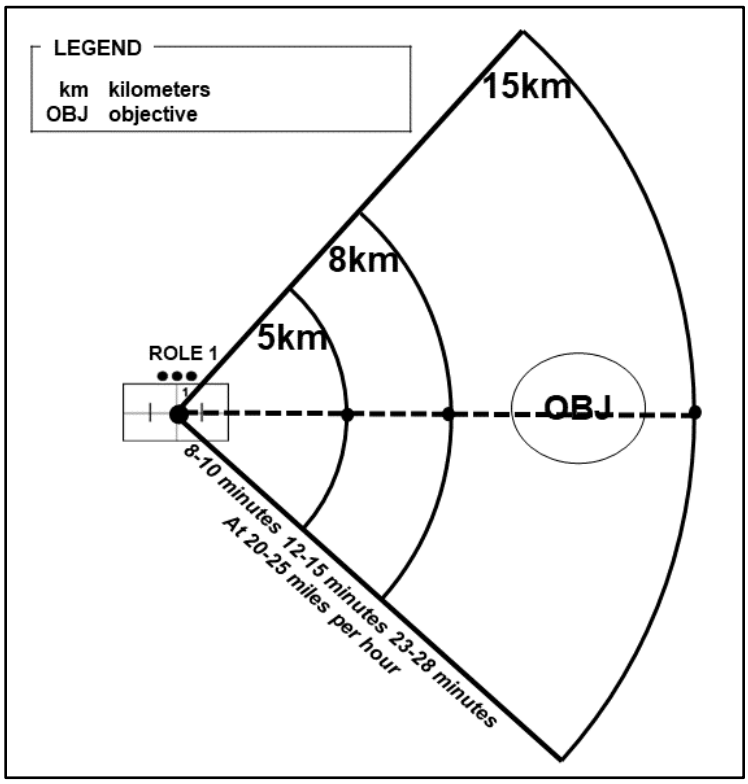

Figure A-4. Point surface evacuation range fan

- Reverse-Point SERF (figure A-5 on page A-11). Drawing a SERF from the furthest point in a tactical objective back towards the axis of advance to evaluate potential sites for role of care occupation.

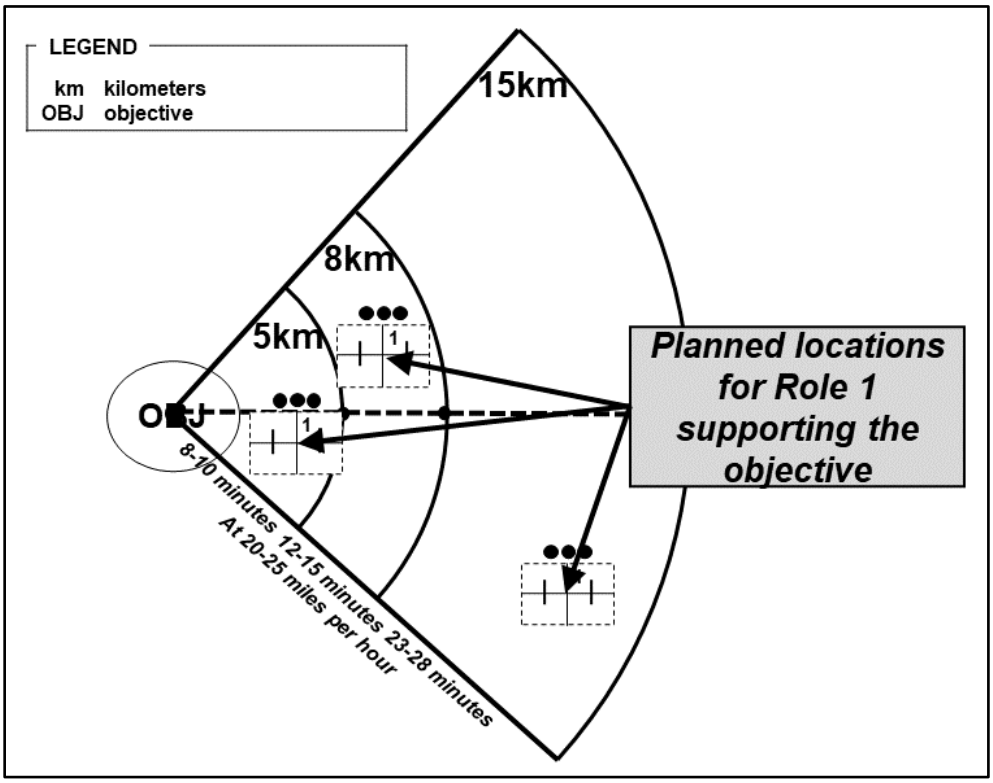

Figure A-5. Reverse-Point surface evacuation range fan

A-39. Additional site selection criteria include—

- Areas not likely to be attacked by enemy forces (such as bridges or passes).
- Areas closed to enemy flanking attacks.
- Areas within proximity that facilitate medical economy of force and communication.
- Easily identified routes to and from forward line of troops to the Role 2 MTF.
- Ideally the fastest routes possible without sacrificing security.

A-40. The SERF tool can be customized to whatever map scale is being used. The SERF can be made of a note card, cardboard, or any other hard cardstock item. The following instructions are how to make a Role 1 SERF tool using an index card; however, the same steps may be used for a Role 2 SERF with increasing the distance calculation.

- Step 1: Place the SERF tool on the map, mark a start point at 5km, 8km, and 15km using the easting lines (figure A-6 on page A-12), and then puncture holes in the center along each line.

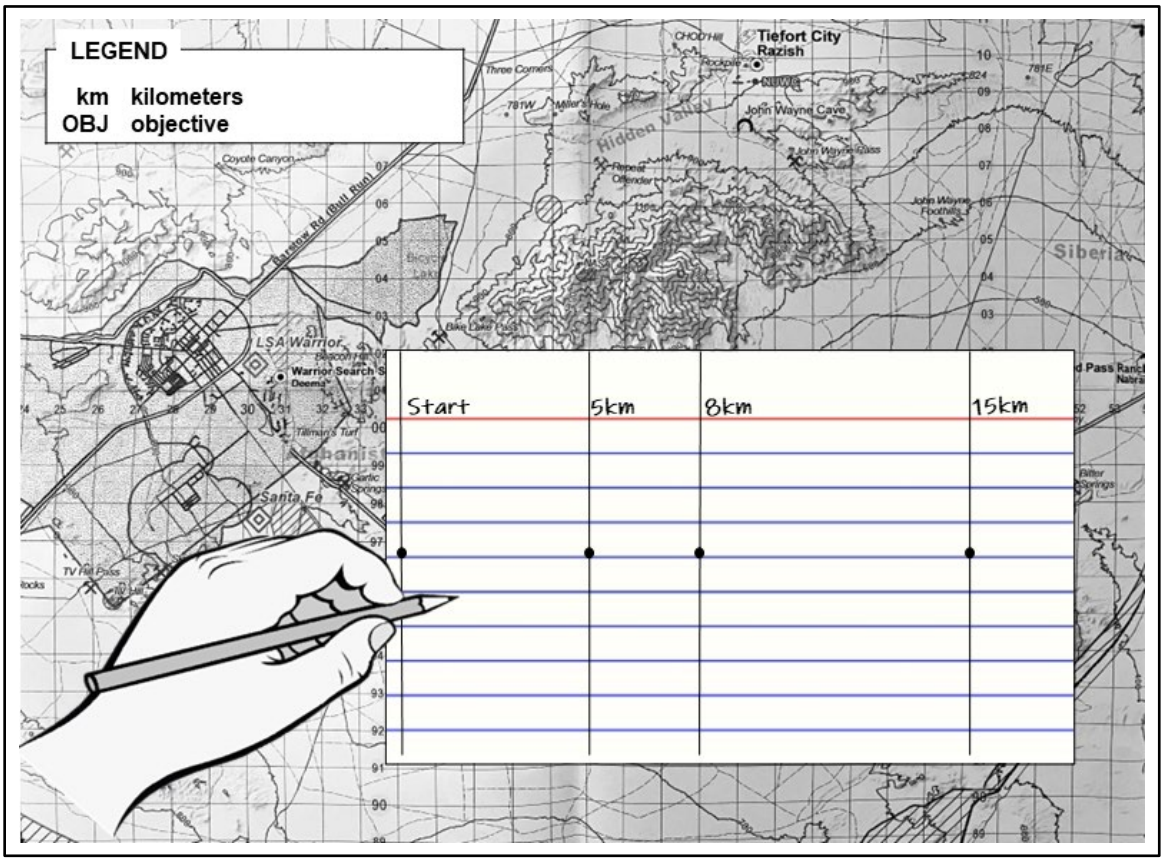

Figure A-6. Step 1 surface evacuation range fan tool construction

- Step 2: Calculate the one-way times using the average safe speeds for the AO for each distance line. The one-way time distance at 20-25 MPH is shown in figure A-7. For the time and distance calculation, see paragraph A-31 on page A-8.

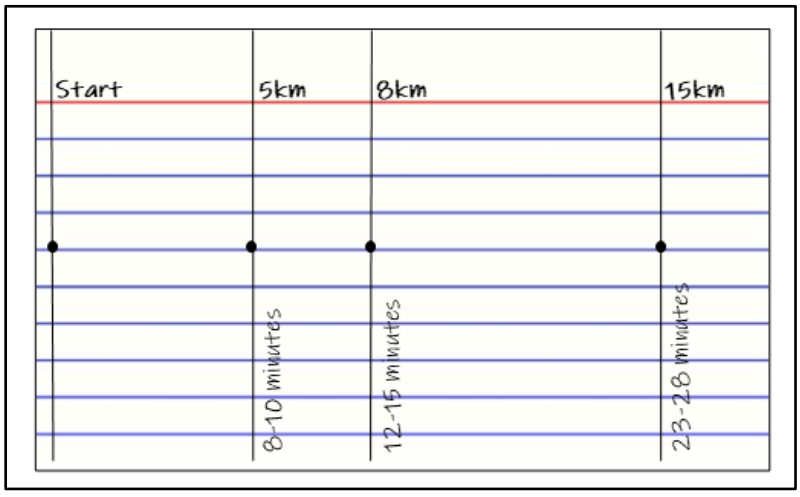

Figure A-7. Step 2 surface evacuation range fan tool construction

- Step 3: Place the start point of the SERF tool over the point being measuring from, and pin the start point down with a pencil or push pin (figure A-8).

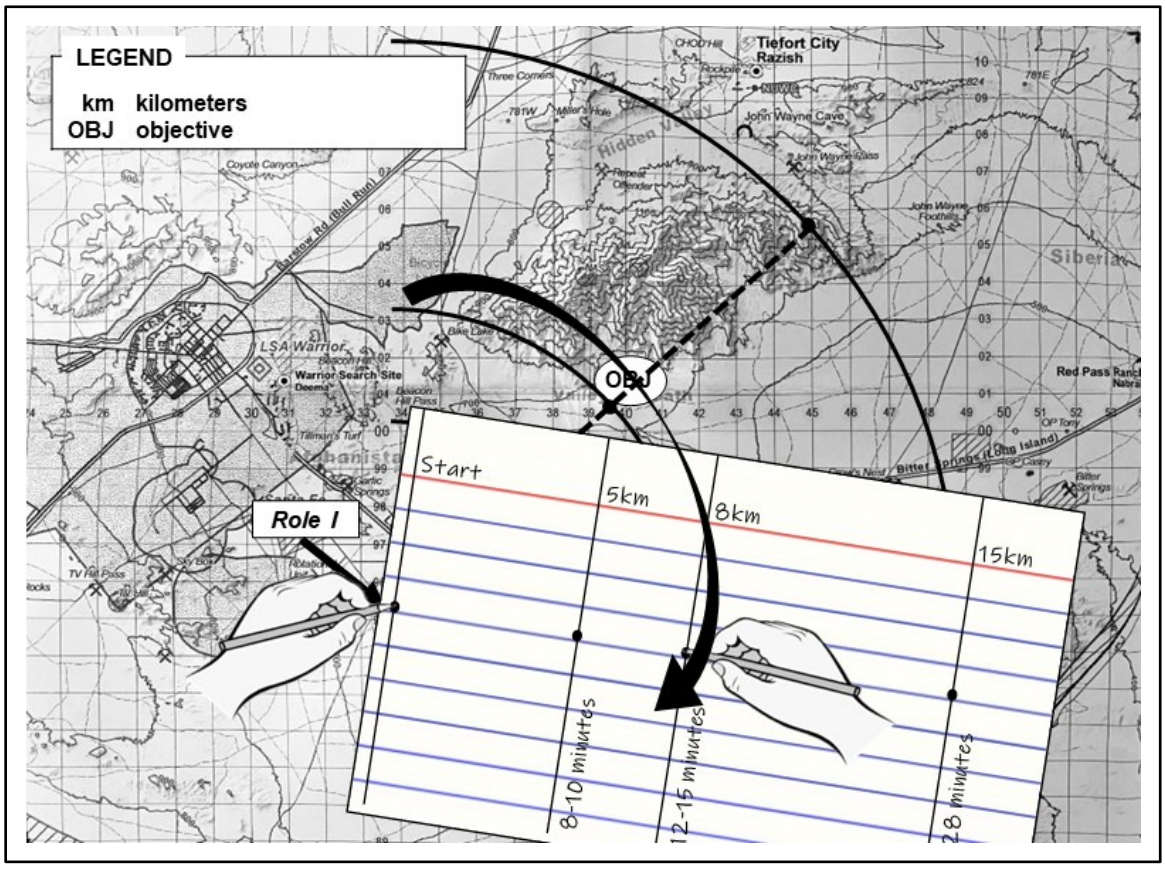

Figure A-8. Steps 3-5 surface evacuation range fan tool construction

- Step 4: Use a map marker in each distance point and draw semi-circles towards the direction of medical coverage.
- Step 5: Mark all the distance lines.
- Step 6: Identify each line with distance line and travel time (figure A-9 on page A-14).

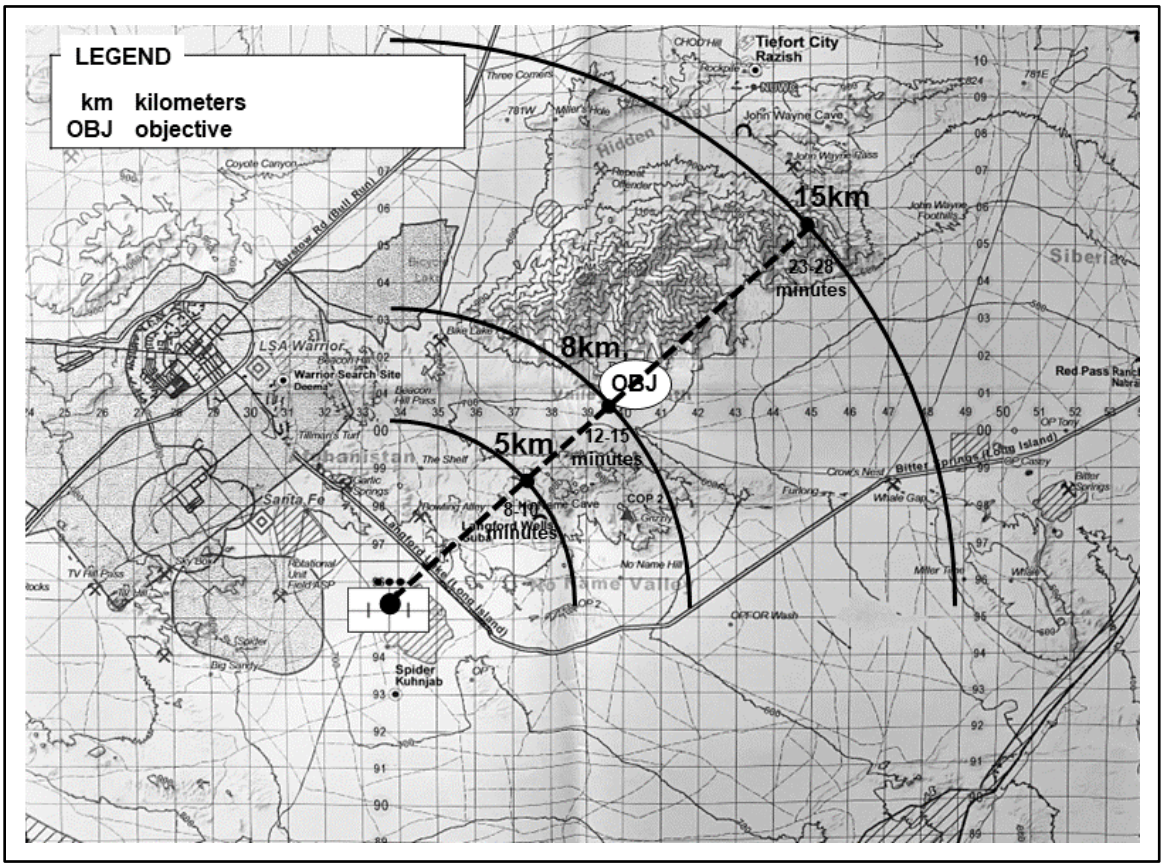

Figure A-9. Step 6 surface evacuation range fan tool construction

A-41. If the AHS support planner is using the same map scale for all mission planning, the SERF can be created on a piece of acetate. This will greatly increase the durability of the tool and allow the AHS support planner to quickly evaluate evacuation distances.

A-42. After the SERF is constructed, the AHS support planners can analyze the terrain and routes to and from the objective. They can mentally add time to the straight-line distance times to quickly determine if they are in a supporting distance from the objective or forward line of own troops. If the AHS support planners concern themselves with being close enough to return ambulances quickly to the forward line of own troops while not compromising their own security, they should not have to worry as much about patient survivability time. Figure A-10 on page A-15 depicts using a Reverse-Point SERF to template a Role 1 MTF, AXP, and Role 2 MTF from the object using time-distance analysis.

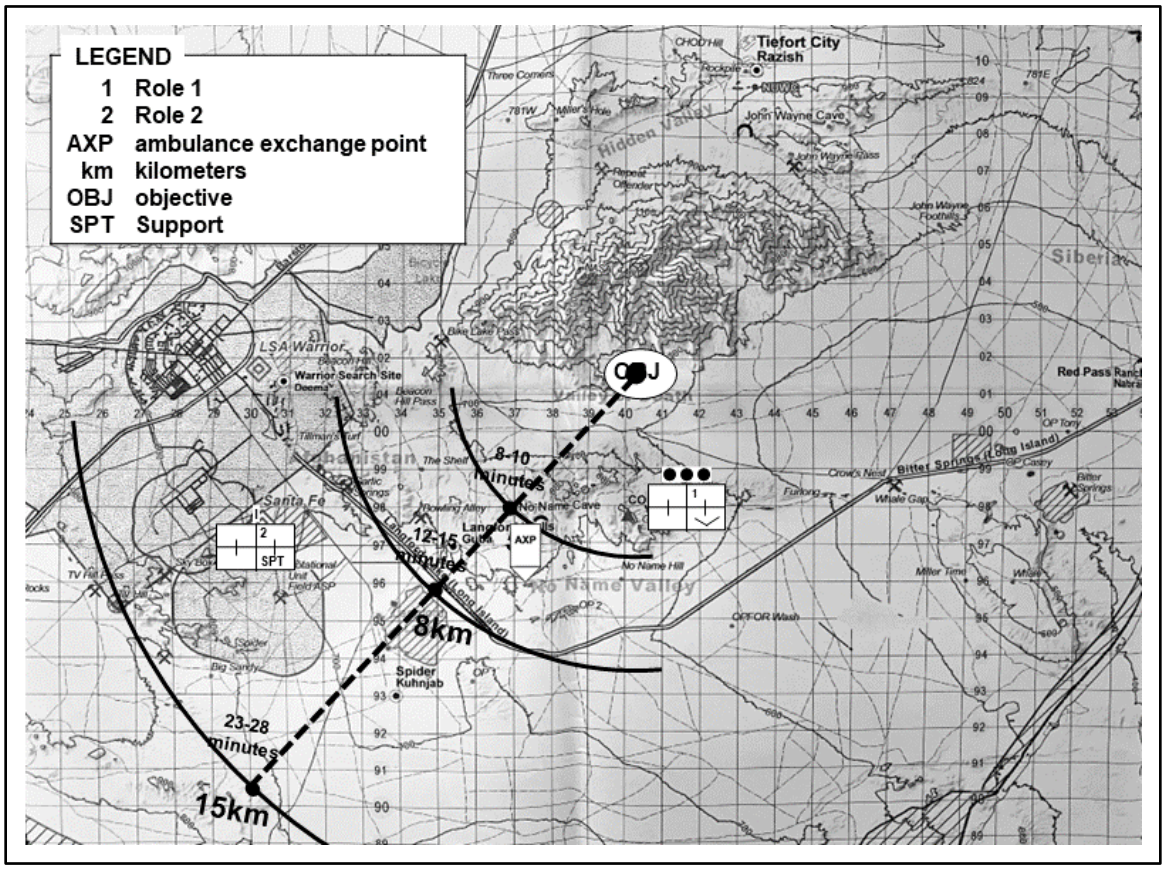

Figure A-10. Utilization of reverse-point surface evacuation range fan

SECURITY IN A DECISIVE OPERATION FOR ARMY HEALTH SYSTEM SUPPORT ASSETS

A-43. Security for AHS support assets during decisive operations should be planned, rehearsed, and executed according to the units tactical SOP. The types of security available to AHS support assets are—

- Organic Security. The AHS support asset has a security attachment assigned to protect the aid station. This is rare and not always feasible.
- Integrated Security. The AHS support asset postures itself inside the security bubble of an established command node. This is the most common means of securing the AHS support asset; however, this can limit the flexibility of AHS support asset.
- Relative Security. The AHS support asset postures itself in an area relatively secure from enemy attack. These are areas cleared and protected by maneuver forces. This requires the full understanding of the tactical plan and active battle tracking.

SECTION III – ARMY HEALTH SYSTEM REHEARSAL

A-44. Medical planners should attend the combined arms rehearsal and the sustainment rehearsal. The sustainment rehearsal should follow the combined arms rehearsal with AHS support rehearsal following the sustainment rehearsal. The key leaders who attend the sustainment rehearsal should also attend the AHS support rehearsal. The medical planners should attend the combined arms rehearsal and sustainment rehearsal, so they are fully aware of the maneuver and sustainment plans that should ensure the AHS support plan is conforming with the other plans. The AHS support rehearsal is a critical step in the synchronization of AHS assets supporting a tactical mission. The AHS support rehearsal is commonly called the "medical

synchronization meeting" or the "med sync." The following briefing topics are provided as "a way" and should not be considered as a definitive answer ("the way") but as a tool to build off and to incorporate into the organization's tactical SOP.

MEDICAL REHEARSALS FLOW

A-45. The medical support rehearsal flow should include—

- Orientation to the maps.
- Overview of the operation.
- Overview and framework for HSS.
- Brief on EAB availability and capabilities.
- Overview of supply routes, objectives, and major infrastructure.

BY PHASE OVERVIEW OF MEDICAL CONCEPT OF SUPPORT

A-46. The medical concept of support should be briefed by phase of operation with each entity briefing its portion. This briefing style ensures AHS assets are synchronized and deconflicted. Each phase should begin with an overview of the maneuver actions during the phase. Table A-3 on page A-16 through page A-18 provides the identified briefer and those topics that should be discussed during the medical concept of support.

Table A-3. Medical concept of support briefing topics

Briefer	***Briefing Topic***
BCT MEDO Medical concept of support	• Introduction and orientation to rehearsal graphic (map or sand table) • Priority of support
BN MEDO Briefed in order by priority of support	• Medical treatment ▪ Role 1 BAS (current and planned locations, jump criteria, or triggers) ▪ Combat slant ▪ Support from higher headquarters ▪ Patient estimate for phase by objective ▪ Casualty collection points (current and planned locations, jump criteria, or triggers) ▪ Next higher role of care • Medical evacuation ▪ Combat slant (medical and nonmedical) and estimated capability or resource shortcomings ▪ Support from higher headquarters ▪ Evacuation plan ▪ Time distance analysis between objectives and Role 1 ▪ Planned HLZs identified near Role 1 ▪ MEDEVAC request procedures • Medical logistics (status, shortcomings, and request supported) • Key medical events or task in phase (acknowledge BCT assets and focus on assets to the maneuver force)

Table A-3. Medical concept of support briefing topics (continued)

Briefer	*Briefing Topic*
BN MEDO Briefed in order by priority of support	• Mass casualty plan • Likely scenarios that initiate specific battle drills or requests for support, such as a loss of a treatment team or an ambulance • CBRN operations plan • Medical reporting requirements
Role 2 Commander Medical concept of support	• Medical treatment ▪ Role 2 (current, planned location, jump criteria, or triggers) ▪ Combat slant ▪ Casualty estimate ▪ Support from higher headquarters or EAB enablers ▪ Next higher role of care • Medical evacuation ▪ Combat slant (medical and nonmedical) and estimated capability or resource shortcomings ▪ Support from higher headquarters or EAB enablers ▪ Time distance analysis between Role 1 and AXP, AXP and Role 2, or Role 1 and Role 2 ▪ Ambulance shuttle system use or triggers ▪ MEDEVAC request procedures • Medical logistics (status, shortcomings, and request supported) • Key medical events and tasks in this phase, acknowledge EAB assets and focus on assets to the Role 1 • Likely scenarios that initiate specific battle drills or requests for support, such as a loss of a treatment squad, a MASCAL, or requirement to execute the planned and resourced CASEVAC plan • Medical reporting PACE • CBRN operations overview
BCT MEDO Medical concept of support	• This portion of the rehearsal should be a confirmation of the information already provided by the MEDOs and medical company to address questions, to clarify discrepancies, and to confirm the information flow between the medical channels (ensuring it aligns with information flowing between operations and sustainment channels) • Medical treatment ▪ Role 3 medical treatment facility (current, planned location, jump criteria, or triggers) ▪ Patient estimate for the phase by priority of support by most deadly COA and most likely COA • Medical evacuation. ▪ Medical evacuation plan following the pneumonic PACE ▪ Medical evacuation request procedures ▪ Time distance analysis from Role 2 and Role 3 both day and night and ground and air or Role 1 to Role 3 during Role 2 bypass ▪ Suitable HLZs ▪ Active AXPs or triggers

Table A-3. Medical concept of support briefing topics (continued)

Briefer	*Briefing Topic*
BCT MEDO Medical concept of support	• CBRN operations overview • Medical reporting PACE • Key medical events and tasks in this phase, focusing on EAB assets in support • Likely scenarios that initiate specific battle drills or requests for support, such as a loss of a key communication link (for example, the SPO-MED loses communications), MASCAL that significantly impacts a maneuver unit's ability to continue its operation, or a loss of a key MEDEVAC asset
Closing Remarks	• The closing remarks should be completed in the same order that the phase overview was completed and should focus on a summary of essential points key to the success of the medical support plan • The BCT XO, BSB SPO, BSB commander, or BCT command sergeant major or commander may have final comments

LEGEND

AXP	ambulance exchange point	HLZ	helicopter landing zone
BCT	brigade combat team	MASCAL	mass casualty
BSB	brigade support battalion	MEDEVAC	medical evacuation
CASEVAC	casualty evacuation	MEDO	medical officer
CBRN	chemical, biological, radiological, and nuclear	PACE	primary, alternate, contingency, emergency
COA	course of action	SPO-MED	support operations-medical
EAB	echelons above brigade	XO	executive officer

SECTION IV – MEDICAL COMMON OPERATIONAL PICTURE

A-47. The outcomes from the AHS support rehearsal is used to develop the MEDCOP. The MEDCOP is a similar tool used by AHS support planners and executors that is tailored to the medical requirements based on the medical situation report and medical status report. The MEDCOP is shared throughout the organization to ensure the AHS support plan is graphically depicted, rehearsed, synchronized, and updated as combat operations occur.

A-48. The responsibility of maintaining and distributing the MEDCOP should be identified in the unit tactical SOP. It should be maintained by the organization that can best maintain situational awareness. For example, if the surgeon section is collocated with the main CP and can maintain the MEDCOP, then that section may be better suited to prepare and maintain the MEDCOP. However, if the Role 2 CP has redundant communications platforms, is staffed 24/7 with multiple personnel, and is communicating with Role 1s on primary methods, then the Role 2 may be better suited to prepare and maintain the MEDCOP and publish for the organization.

A-49. Figure A-11 on page A-19 provides an example with the commander's assessment using the effectiveness pie chart and the selected status pie chart. The effectiveness pie chart is used to graphically depict the ability of an organization to perform its mission. When one third of the pie chart is shaded, it indicates the organization is having some problems. When two thirds of the pie chart is shaded, it indicates the organization is having major problems. When three thirds or a full pie chart is shaded, it indicates the organization cannot perform its mission. The selected status pie chart is divided into four areas identifying the HSS medical functions. The upper left fourth represents personnel, and the upper right fourth represents treatment. The lower left fourth represents Class VIII, and the lower right fourth represents evacuation. The medical function of hospitalization was replaced with personnel as a BCT does not execute the hospitalization medical function. In the example provided personnel status was identified as being the commander's reporting priority. The selected status pie chart is METT-TC (I) dependent and should be established in the unit TSOP.

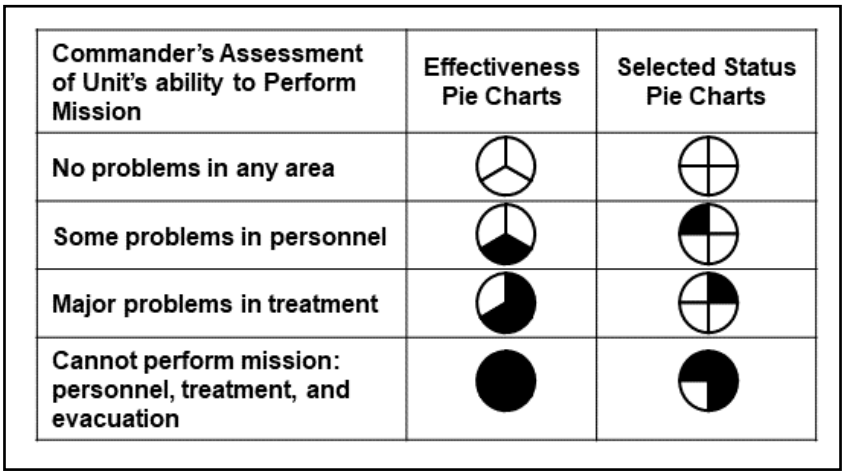

Figure A-11. Status key examples

A-50. A MEDCOP example is shown in figure A-12 on page A-20. The FHP and HSS annexes of the OPORD must identify which organization maintains and distributes the MEDCOP and the PACE plan for that information distribution.

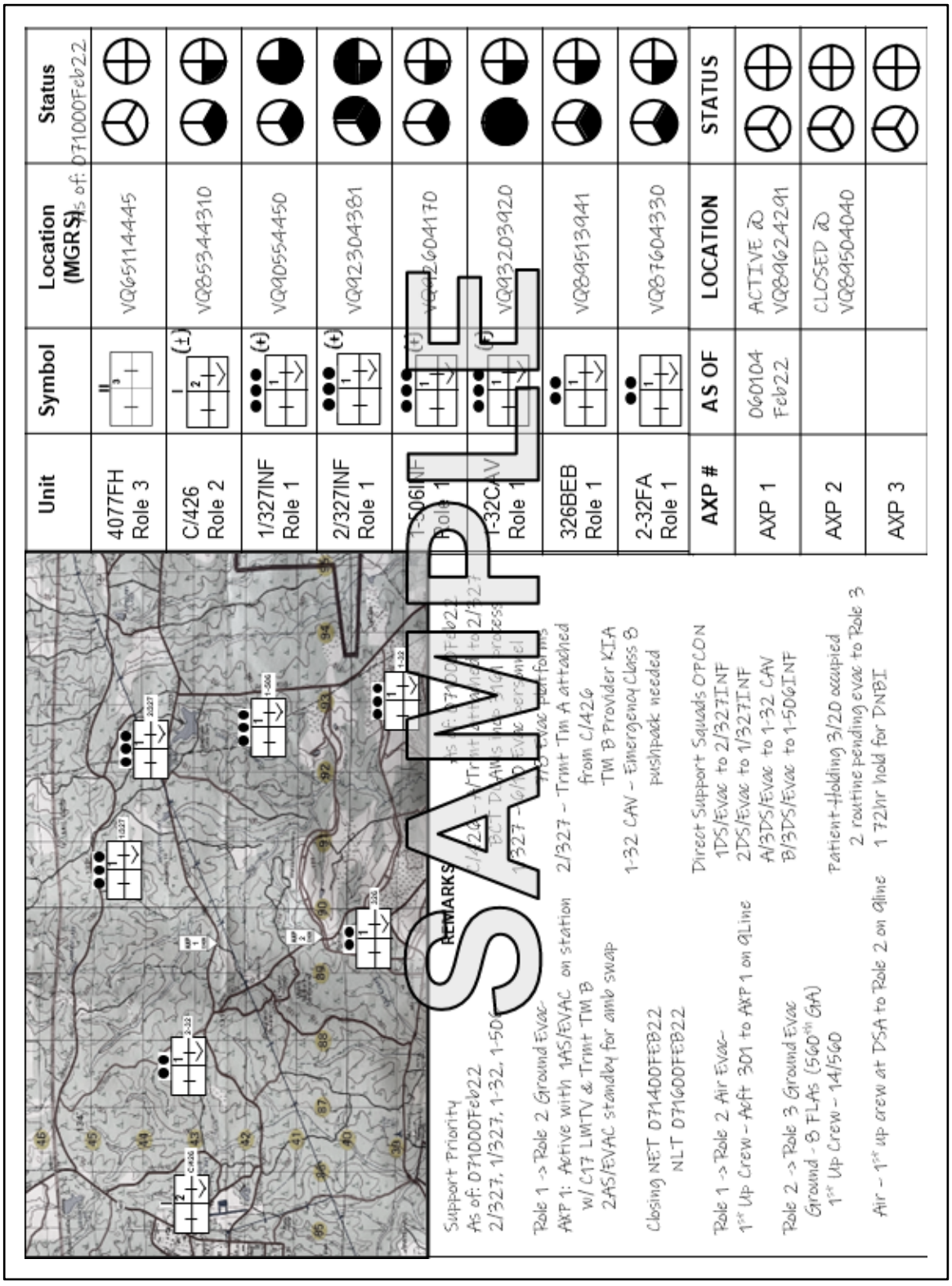

Figure A-12. Medical common operational picture

A-51. The SPO-MED in coordination with the BSB support operations provide planning and oversight of AHS support tasks. This team coordinates with the BSS and, as appropriate, division surgeon sections for all AHS support issues affecting the brigade.

A-52. Brigade combat team medical planning and execution is a collaborative process between the BCT's chief of protection and chief of sustainment, the BSS, the SPO-MED, the BSMC command team, and battalion MEDOs. It requires direct involvement of commanders and staffs.

A-53. All the above personnel have distinct roles in the planning and execution of AHS support operations. The BCT staff in conjunction with the BSS and BSB SPO-MED develop the MEDCOP, medical synchronization sketch (matrix), and medical operational overlay contained in the scheme of protection and concept of sustainment that clearly identifies the BCT AHS support requirements by organization. Based on this information, the BSB staff develops their concept of operations to execute AHS support to meet the BCT protection and sustainment requirements.

WARNING

WHEN THE MEDCOP IS CONSOLIDATED, IT SHOULD BE TREATED AS A SECRET DOCUMENT AND SAFEGUARDED ACCORDINGLY.

A-54. The MEDCOP, medical synchronization sketch (matrix), and medical operational overlay are a written or graphical representation of how the BCT will employ its AHS support assets to support the BCT concept of operations. The BSB SPO-MED may help the BSS and BCT staff in developing these products but is not responsible for them. The BCT MEDCOP, medical synchronization sketch (matrix), and medical operational overlay are submitted to the—

- Brigade combat team chief of protection and included in Annex E (Protection) Appendix 9 (FHP) of the BCT OPORD. The corresponding protection overlay is developed by the BCT chief of protection in conjunction with the surgeon section.
- Brigade combat team chief of sustainment and included in Annex F (Sustainment) Appendix 3 (HSS) of the BCT OPORD. The corresponding sustainment overlay is developed by the BCT chief of sustainment in conjunction with the surgeon section.

A-55. The AHS support plan is split between two warfighting functions (protection and sustainment). To provide briefing brevity and clarity, it is recommended that the medical company commander or the BCT MEDO brief the entire AHS support plan (FHP and HSS) to the commander.

A-56. The BSS should concentrate on future operations while the SPO-MED concentrates on current operations. The SPO-MED team uses the medical and logistic status reports and running estimates to update the synchronization sketch (matrix) for current operations.

A-57. The organizations rely heavily on each other in the planning process and in accomplishing their missions. Tactics, techniques, and procedures should be established to ensure information between these two staffs is standardized and shared on a continuous basis. The requirements for EAB medical assets, prolonged care support, MEDLOG support, and FHP support to the BCT are—

- Determined by the BSS.
- Coordinated by the SPO-MED.
- Employed by the Role 2.

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Appendix B

Mass Casualty Operations

A mass casualty event describes an incident in which medical resources, such as personnel and equipment, are overwhelmed by the number and severity of casualties. MASCALs may occur at any time – in peace, during stability operations, joint response contingencies, or during large scale combat operations. In a MASCAL event, conventional treatment priorities may require modification. The modification may include a variation from the traditional practice of providing early, complete, definitive treatment to each patient based on that individual's needs. Because of this variation from traditional practice, the medical authority must develop, publish, and exercise a MASCAL plan that prepares all medical personnel to effectively respond to a MASCAL situation.

The following sections are in consonance with STANAG 2228 and ABCANZ standard 2141.

SECTION I – MASS CASUALTY MANAGEMENT

B-1. Mass casualty situations are demanding events to be dealt with by medical personnel or staff. A joint approach under the responsibility of the respective commander is required to manage the event successfully. In a MASCAL situation a coordinated response of all staff and agencies (including civilian resources) involved is required, and management of a MASCAL situation is a commander's responsibility. Any MASCAL situation should have the total focus of the commander, especially in a humanitarian and disaster response situation or medical stability operation.

B-2. Mass casualty situations are normally chaotic and may include the full range of casualties from minor injuries to life-threatening injuries. All casualties will have some degree of pain and will be in distress either physically or emotionally. Casualties may present with a single wound, multiple wounds, or wounds from combined sources, such as blast injuries in a nuclear detonation, resulting in both traumatic injury and radiation-related conditions. Additionally, there may be some personnel who are dazed, wandering through the area, uninjured looking for a buddy that may be disrupting operations.

B-3. In a peer-to-peer conflict, the U.S. Army will almost certainly experience episodes of increased casualty numbers that will overwhelm available medical capability and capacity. Such episodes will be classified as MASCAL events. Management of MASCAL events, which invariably require a coordinated response, is a commander's responsibility. The first step in the management of a MASCAL event is recognizing the situation and formally declaring it to be a MASCAL event. Declaring a MASCAL compels the commander to address the situation by coordinating medical and evacuation assets and providing security to key nodes in the medical treatment and evacuation system.

B-4. A major (medical) incident is an incident in which the number of casualties, their severity, type or location will strain available medical resources, thereby requiring a coordinated response. In a major incident, a commander's medical resources are sufficient to respond; however, the commander may need to reallocate available resources to adequately handle the response.

B-5. A MASCAL event is one in which a significant disparity exists between the capacity and capability of a force's medical assets to deal with the number, complexity, and location of numerous casualties. Formal declaration of a MASCAL situation, which is a top-down directed activity, will likely become the commander's main effort and will typically require assets from outside of a commander's direct tasking authority.

PLANNING

B-6. To ensure effective management of MASCAL situations, the AHS support planner must develop and rehearse a MASCAL plan for the unit. The MASCAL plan should include considerations for establishing the station in a noncontaminated environment and establishing the station when a PDS is required to be collocated with the MASCAL station.

B-7. Planning considerations include—

- Establishing a control element to coordinate ongoing activities and release information updates.
- Securing the area and limiting access of nonessential personnel.
- Establishing communications between areas and to higher headquarters, if possible.
- Establishing the triage, treatment, and holding areas.
- Establishing a traffic pattern that provides for the smooth flow of patients and vehicles.
- Marking routes to the different areas.
- Orienting all personnel (medical and nonmedical) operating the MASCAL station to the types of markings used, layout, and routes to be followed during the MASCAL operation.
- Organizing medical personnel for staffing of the different areas.
- Organizing nonmedical personnel for litter bearer duties, messengers, restocking supplies, and other nonmedical functions.
- Ensuring an adequate blood supply and other Class VIII items are available or on order.
- Providing timely evacuation.

B-8. The medical company commander or first sergeant should coordinate with the BSB or units in the BSA to receive nonmedical personnel to provide manpower for nonmedical functions. Furthermore, the medical company commander, with advice and guidance from the senior physician, must be the only person who determines the MTF is experiencing a MASCAL. A MASCAL battle drill should be included in the organization tactical SOP and rehearsed regularly.

MASS CASUALTY REHEARSAL

B-9. The MASCAL plan must be rehearsed on a periodic basis. Rehearsing the plan is essential to ensure all personnel know their roles and responsibilities during a MASCAL situation. A well-rehearsed plan enables the medical element to quickly gain control of a chaotic situation, establish a well-organized and efficient MASCAL station, and maximize the use of scarce resources. Repeated rehearsals of establishing the MASCAL station ensures medical personnel can establish the station quickly and effectively with a minimum amount of supervision and instructions.

B-10. Nonmedical personnel assigned to the unit should be trained in the proper techniques for loading, carrying, and unloading litters. This training enhances their ability to perform the task of transporting patients correctly and using the proper techniques reduces physical fatigue and the risk of injury to the litter bearers. Nonmedical personnel can also serve as messengers throughout the station and provide security and control within the station. Rehearsing with nonmedical personnel should include support of the S-1 for personnel accountability, S-4 in cooperation with unit supply for personal effects of the patients, chaplain for the expectant area, and CLS to continue to provide aid to less critical patients.

TRIAGE CATEGORIES

B-11. Triage is the system of sorting and prioritizing casualties based on the tactical situation, mission, and available resources. It is performed at each role of medical care. Triage is the most effective means of establishing order and the best method for providing the greatest benefit to the greatest number of patients within the limitations of time, distance, and capability. Triage is a constant process as casualties move within and through the roles of medical care. For an in-depth discussion of triaging casualties exposed to CBRN hazards, refer to ATP 4-02.7.

B-12. The decision to withhold care from a casualty who in another less overwhelming situation might be salvaged is difficult. Decisions of this nature are unusual., even in MASCAL situation. Nonetheless, the overarching goal of providing the greatest good to the greatest numbers must guide these difficult decisions.

Commitment of resources should be decided first based on the mission and immediate tactical situation and then by medical necessity, irrespective of a casualty's national or combatant status.

B-13. In order to maximize the expenditure of scarce resources, triage or sorting of casualties is required. Triage requires clinical judgement to evaluate and categorize casualties for medical treatment and evacuation. The goal of military medicine is the return to duty of the greatest possible number of Service members and the preservation of life, limb, and eyesight. The triage categories are immediate, delayed, minimal, and expectant. The triage station is commonly referred to as the IDME or the DIME with each letter representing a triage category. These categories are discussed in decreasing order of surgical urgency.

TRIAGE CATEGORY: IMMEDIATE

B-14. The immediate category requires attention within minutes to two hours upon arrival to avoid death or major disability. The procedures in this category should focus on patients with a good chance of survival with immediate intervention. Injures within this category include—

- Airway obstruction or potential compromise.
- Tension pneumothorax.
- Uncontrolled hemorrhage.
- Torso, neck, or pelvis injuries with shock.
- Head injury requiring emergent decompression.
- Threatened loss of limb.
- Retrobulbar hematoma.
- Multiple extremity amputations.

B-15. Generally, the procedures used are short in duration and economical in terms of medical resources and should concern only those patients with high chances for survival. Approximately 20 percent of the casualties are normally in this category.

TRIAGE CATEGORY: DELAYED

B-16. Injuries in the delayed category include those wounded who will require surgery, but whose general condition permits delay in treatment without unduly endangering life, limb, or eyesight. Sustaining treatment will be required (such as fluid resuscitation, stabilization of fractures, and administration of antibiotics, bladder catheterization, gastric decompression, and relief of pain). Injuries in the delayed category include—

- Blunt or penetrating torso injuries without signs of shock.
- Fractures.
- Soft-tissue injuries without significant bleeding.
- Facial fractures without airway compromise.
- Globe injuries.
- Survivable burns without immediate threat to life (airway, respiratory) or limb.

B-17. When surgical or medical resources are overwhelmed, Soldiers in this category are held until the IMMEDIATE cases are treated. Sustaining treatment will be required such as stabilizing intravenous fluids, splinting, administration of antibiotics, and relief of pain among other medical interventions. These cases may go unoperated for 8 to 10 hours, after which there is a direct relationship between time lapsed and the advent of complications. Approximately 20 percent of the casualties are normally in this category.

TRIAGE CATEGORY: MINIMAL

B-18. Casualties in the minimal category have relatively minor injuries (such as minor lacerations, abrasions, fractures of small bones, and minor burns) and can effectively care for themselves or be rendered minimal medical care. These casualties may also constitute a manpower resource, utilized to assist with movement or care of the injured. When a mass casualty incident occurs in proximity to an MTF, it is likely that these casualties will be the first to arrive, bypassing or circumventing the CASEVAC chain. Such casualties may inundate the MTF leading to early commitment and ineffective utilization of resources. To prevent such an

occurrence, it is imperative to secure and strictly control access to the MTF immediately upon notification of a MASCAL event.

B-19. Casualties in the minimal category have relatively minor injuries that are so superficial they require no more than cleansing, minimal debridement, administration of antibiotics or prophylactic vaccines, and first aid type dressings. They must be rapidly directed away from the triage area to uncongested areas where first aid is available. Most of the injured in this category are ambulatory. Medical providers should query casualties concerning their exposure to a potentially concussive incident and document the event in the Soldier's individual medical record.

Note. Within the behavioral health discipline, the COSC triage categories are contained in ATP 4-02.8.

TRIAGE CATEGORY: EXPECTANT

B-20. Casualties in the expectant category have injuries that overwhelm current medical resources at the expense of treating salvageable patients. The expectant casualty should not be abandoned but should be separated from the view of other casualties and intermittently reassessed. These casualties require a staff capable of monitoring and providing comfort measures. Injuries in the expectant category include-

- Any casualty arriving without vital signs or signs of life, regardless of mechanism of injury.
- Transcranial gunshot wound with coma.
- Open pelvic injuries with controlled bleeding and class IV shock.
- Burns without reasonable chance for survival or recovery.
- High spinal cord injuries.

B-21. Casualties in the expectant category have wounds that are so extensive that even if they were the sole casualty and had the benefit of optimal medical resource application survival would be unlikely. During a MASCAL situation, this type of casualty would require an unjustifiable expenditure of medical resources depriving other Soldiers with a higher probability of surgical or medical rescue. Approximately 20 percent of the casualties are normally in this category.

SECTION II – MASS CASUALTY STATION

B-22. The MASCAL station is established and organized to process incoming casualties rapidly and effectively during a MASCAL situation. In addition to sorting patients and establishing a priority for medical treatment and MEDEVAC, the MASCAL station must finalize patient documentation and other administrative actions required.

ESTABLISHING TRIAGE, TREATMENT, AND HOLDING AREAS

B-23. Depending on the tactical situation or the location of the MASCAL situation, the triage, treatment, and holding areas may be established in the existing MTF, an available shelter, or outdoors. When the existing MTF is used, the triage area should afford easy access for incoming litter bearer teams, ground and air ambulances, and nonmedical transportation assets. Sufficient space must be allocated for ambulance turnaround to ensure a smooth and efficient flow of traffic. The requirements are normally met with the established layout of the MTF; however, depending on the number of casualties being received, additional space may be required to accommodate the patient flow. Weather could also affect the effectiveness and efficiency of the flow of traffic to the MTFs triage area.

B-24. The flow of wounded or injured into the triage area must be controlled. Resuscitation and vascular volume replacement can be initiated in the triage area, if required. Litter stands (standard or improvised) should be established for placing casualties to be triaged. At a minimum, two should be established with a triage officer between the stations. An increase in the noise level and confusion may result if too many casualties are brought into the triage area at one time. These factors can adversely impact the ability of the medical personnel to thoroughly evaluate and prioritize each casualty.

CONTROL ELEMENT

B-25. The MTF commander designates the personnel who will staff the control element. This element is responsible for—

- Implementing the plan.
- Establishing security.
- Limiting access to the MASCAL station area.
- Monitoring and regulating ongoing activities.
- Coordinating medical resource augmentation.
- Providing informational updates and briefings, as required.

B-26. Communication with the triage, treatment, and holding areas is essential to accomplish the coordination and control of ongoing activities. If telephone or radio communications are not available, a messenger system is employed using multiple nonmedical unit personnel for this function.

B-27. The control element should have access to all areas as required to proactively solve issues before they become challenges. The internal communications system should be modified as required to provide communications capability to the major areas of the facility. If an adequate communications system does not exist, a messenger system is established.

PERSONNEL POOLS

B-28. Two personnel pools should be designated, one for medical personnel and one for nonmedical personnel. The MTF commander should designate those individuals who will supervise the management of each pool. As unit personnel complete tasks, shifts, or other duties, they report back to the appropriate personnel pool area. Using this system ensures the efficient use of available resources and permits the reallocation of resources as requirements change. The MINIMAL category of patients can be used as an additional manpower pool while waiting transportation back to their units. With minimal training or briefing, they can act as runners, litter bearers, or guides to free up medical personnel to attend to medical tasks.

DESIGNATION OF AREAS IN THE MEDICAL TREATMENT FACILITY

B-29. Within the MTF, specific areas are designated for each of the triage categories, personnel pools, and control elements. Additionally, internal traffic routes to the x-ray area, laboratory area, preoperative area, recovery area, and holding areas (if augmented by an FRSD) must be identified. Surgical procedures are limited to those required to save life and stabilize nontransportable patients for MEDEVAC.

B-30. Holding areas for each of the four triage categories should be established in the vicinity of the MTF; however, the exception is the EXPECTANT category. The EXPECTANT category must be segregated from and out of sight of the other triage categories, if possible. The EXPECTANT category must be manned with personnel to continue to render aid to those patients. All areas require adequate Class VIII to provide adequate medical support.

B-31. These holding areas need to be marked for day and limited visibility operations. Marking may be accomplished with the use of different color panels or a numbering system. The marking system used should function during good visibility as well as during periods of poor visibility. Materials used for marking purposes should be prepared when the MASCAL plan is developed and stored until required for use. The marking system must be included in the unit tactical SOP and known by all personnel involved with the response to the MASCAL situation. The NATO marking system can be found in AJP 4.10.

USING AN AVAILABLE SHELTER

B-32. A MASCAL situation may occur in an area away from the MTF. It may not be practical or possible to evacuate or transport the casualties to the MTF location. If a structure not previously used for an MTF is available, it may be used. The requirements for the establishment of the area are the same as when an existing MTF is used; however, the actual layout will differ depending upon the structure used. Caution must be used

to develop a traffic plan that will expedite patient flow and avoid congestion and the crisscrossing of internal paths. If possible, the shelter should be inspected by supporting engineer elements for structural integrity and safety.

ESTABLISHING THE MASS CASUALTY STATION OUTDOORS

B-33. In some instances, a MASCAL station may be required to be established outdoors. When this occurs, efficient use of overhead cover and available shade is essential. Unless inclement weather occurs, the triage area and the MINIMAL treatment area remain outdoors. The triage area must remain accessible to incoming vehicles and provide sufficient space for the turnaround of vehicles. It should also not be established too far from the treatment areas as the distance will place an additional burden on the litter bearers. Once triaged, patients should be brought inside an improvised shelter as soon as possible. The use of improvised shelters or the use of cover may be required until more appropriate shelters can be obtained or established. Figure B-1 depicts a Role 2 MASCAL station established outdoors.

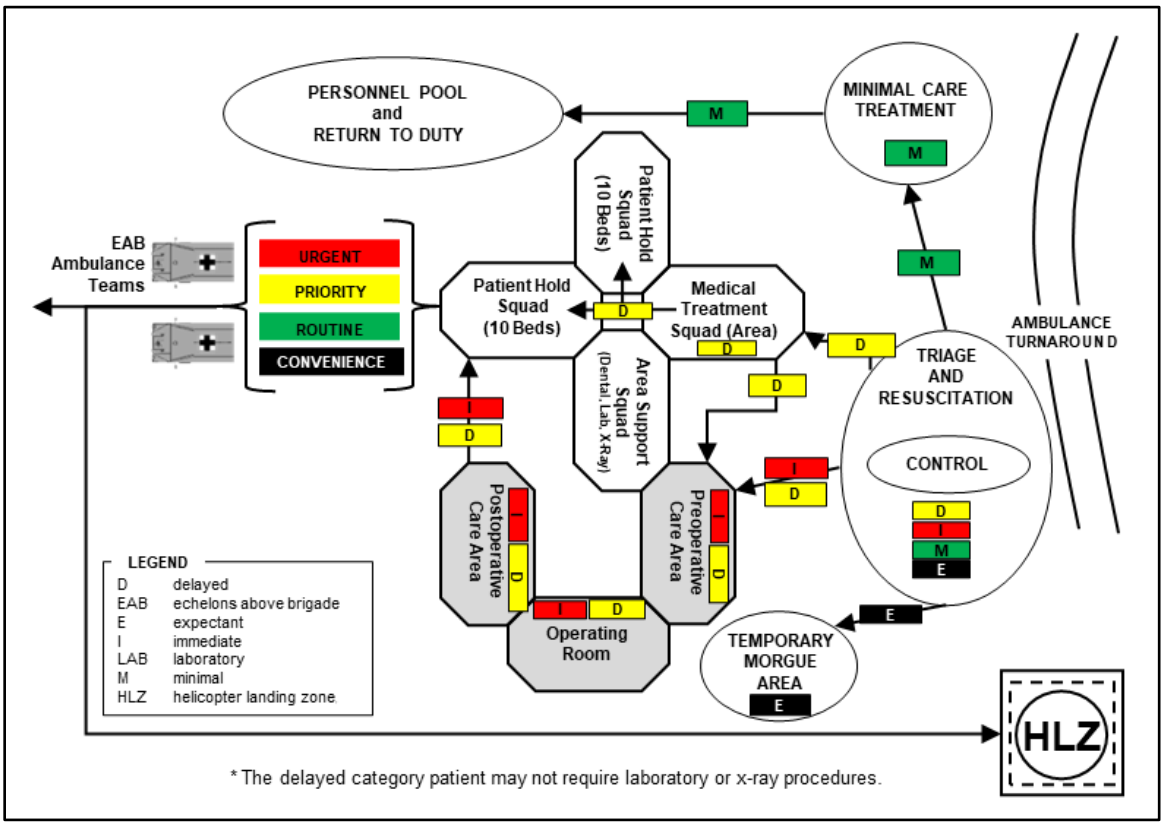

Figure B-1. Mass casualty station established outdoors

B-34. The color codes depicted in figure B-1 for the triage area are according to the standard triage categories used in the AHS during daytime operations for marking. During nighttime operations, these areas are marked with the same chemical light color; however, the expectant area is marked with blue chemical lights. The color marking system must be identified in the unit SOP.

B-35. The color codes depicted in figure B-1 for the evacuation area are not according to a current AHS marking standard however follow the same logic of triage. Urgent evacuation area is red, priority area is amber, and routine area is green. The convenience area is traditionally not marked as these patients may be held in the patient holding area or used as manpower during MASCAL events. The color marking system must be identified in the unit SOP.

PATIENT ACCOUNTABILITY

B-36. During MASCAL situations, medical personnel do not have the time to fully complete the patient's DD Form 1380. A numbering system can be used to expedite this process. The patient can be identified by a number, and this same number is entered on the DD Form 1380. The DD Form 1380 is then attached to the patient's clothing and used to record the treatment and medications the patient receives. When the MASCAL situation begins to resolve, and as time permits, medical personnel obtain the necessary information to complete the patient's DD Form 1380. If the electronic medical record is available at the MTF conducting the MASCAL operation, the handwritten record of the patient encounter should be entered into the electronic medical record at the earliest possible time.

MEDICAL EVACUATION

B-37. When MASCAL situations occur, the number of patients will normally overwhelm the available MEDEVAC resources. Therefore, the MASCAL plan should include designated CASEVAC vehicles with staged litters and Class VIII, preplanned en route security, and a detailed CASEVAC team of nonmedical Soldiers. When possible, patients who have sustained more severe wounds should be evacuated in medical ground or air ambulances. These patients will benefit most from the provision of en route medical care. The lightly wounded and stable patients and those suffering from COSR can be transported by nonmedical transportation assets without serious risk of worsening their medical condition.

B-38. After the patients have received initial treatment and are stabilized and prepared for evacuation to the next role of care, they must be categorized into the evacuation categories of precedence. The evacuation priorities are Urgent, Urgent-Surgical, Priority, Routine, and Convenience. The location where patients are prepared or staged for evacuation is commonly referred to as the UPR (pronounced upper) or Reverse DIME.

B-39. Table B-1 lists the categories of evacuation precedence and the criteria used to determine the appropriate precedence. For further discussion on MEDEVAC, refer to FM 4-02 and ATP 4-02.2.

Table B-1. Categories of evacuation precedence

Evacuation priority	*Precedence criteria*
Priority I—URGENT	Is assigned to emergency cases that should be evacuated as soon as possible and within a maximum of one hour to save life, limb, or eyesight and to prevent complications of serious illness and to avoid permanent disability.
Priority IA—URGENT-SURG	Is assigned to patients that should be evacuated as soon as possible and within a maximum of one hour who must receive far forward surgical intervention to save life, limb, or eyesight and stabilize for further evacuation.
Priority II—PRIORITY	Is assigned to sick and wounded personnel requiring prompt medical care. This precedence is used when the individual should be evacuated within four hours or if the patient's medical condition could deteriorate to such a degree that this person will become an URGENT precedence, or whose requirements for special treatment are not available locally, or who will suffer unnecessary pain or disability.
Priority III—ROUTINE	Is assigned to sick and 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.
Priority IV—CONVENIENCE	Is assigned to patients for whom evacuation by medical vehicle is a matter of medical convenience rather than necessity.
Note. The NATO STANAG 3204 has deleted the categories of Priority 1A—URGENT SURG and Priority IV—CONVENIENCE; however, these categories are still included in the U.S. Army evacuation priorities as there is a requirement for them in an operational environment.	

DISPOSITION OF REMAINS

B-40. In a MASCAL situation, there will be patients who have died before reaching the triage area (dead on arrival) or who die of wounds before they can be stabilized and further evacuated. A temporary morgue area should be established away from and out of sight of the triage and treatment areas.

Note. The temporary morgue area is for use only by the MTF for those patients who have died at the MTF. It is not a temporary collecting point for deceased personnel from other units.

B-41. The temporary morgue can be established behind a natural barrier, such as a stand of trees, or it can be set off from the triage area using tentage or tarpaulins. This area is not an actual morgue as it has neither the required equipment nor is it staffed—it is only a holding area. A DD Form 1380 must be completed for each of the deceased, and it must be signed by a physician. The remains are held until MA support can be obtained.

B-42. If the Role 2 must relocate before MA support arrives, the Role 2 MTF must ensure an identification tag remains with each deceased individual and an 8-digit grid coordinate of the location of the temporary morgue is provided to the battalion S-4.

Appendix C

Records, Reports, and Planning Tools

Individuals entering the medical treatment chain must be accounted for at all times. Prompt reporting of patients and their health status to the next higher headquarters is necessary for the maintenance of a responsive personnel replacement system and the Army Casualty System.

SECTION I – RECORDS

C-1. The purpose of a medical record is to document patient encounters, health assessments, potential exposures to toxic industrial materials or CBRN hazards and concussive incidents, treatments received, and medications provided. The longitudinal medical record is initiated when a Soldier joins the Service and continues through the Soldier's entire military career. It is essential that the individual medical record be comprehensive and captures all required data for medico-legal purposes, research, and education and aids in determining military retention, eligibility for benefits, and readiness for mobilization.

C-2. This appendix provides guidance on the maintenance of the Soldier's individual HREC (handwritten) and CEMRs in the field. The governing regulation for health care documentation is AR 40-66. This appendix also provides sample report formats that can be used if the electronic systems are not available. Proper record keeping improves patient accountability and status reporting which are both required to—

- Provide the commander with an accurate account of personnel losses due to medical causes (enemy action and related combat losses and DNBI).
- Verify personnel replacement requirements.
- Assist the command surgeon in the preparation of the AHS support estimate and plan.
- Alert Operational Public Health personnel to the health threat in a given operational area.

This paragraph is consonance with STANAG 2132 and ABCANZ standard 2136.

UNITED STATES TACTICAL COMBAT CASUALTY CARE CARD

C-3. Personnel use the DD Form 1380 to record data like that recorded on the inpatient treatment record cover sheet or the SF 600 (*Chronological Record of Medical Care*). Some MTFs prefer to use SF 600 instead of DD Form 1380. If an MTF receives a patient who already has a DD Form 1380, the patient's DD Form 1380 will be attached to the patient's SF 600, and both will become permanent records of the patient. For additional information on the preparation and use of DD Form 1380 and other health care documentation, refer to AR 40-66.

C-4. Combat medics, Role 1 BASs, Role 2 MTFs, and nonfixed troop or health clinics working overseas, on maneuvers, or attached to commands moving between stations use DD Form 1380. It may also be used to record an outpatient visit when the HREC is not readily available at an MTF. During times of hostilities, the DD Form 1380 can be used in the operational area.

C-5. The DD Form 1380 meets the essential information requirements specified in the STANAG 2132 and ABCANZ standard 2136, and the DD Form 1380 will continue to be used to document and relay casualty data. The United States acknowledges and accepts that other countries will use the format prescribed in the STANAG 2132 and ABCANZ standard 2136 as well as variants based on national preference.

MANAGEMENT OF DEPLOYED INDIVIDUAL MEDICAL RECORDS

C-6. Medical records may be handwritten or electronic with the electronic medical record is the preferred method for compiling a HREC. In some deployed settings the electronic HREC may not be available at all roles of care. When using handwritten documentation, care must be taken to ensure the documentation accompanies the patient through the evacuation process.

MAINTENANCE OF HEALTH RECORDS

C-7. Health records are maintained by the MTF that provides primary care for the Soldier. Unit commanders will ensure HRECs are always available to Army Medicine personnel who require such records in the performance of their duties. Unit commanders also ensure the information in the HREC is kept private and confidential according to law and regulations governing patient records administration.

C-8. Health records located at Role 1 and Role 2 MTFs are maintained by unit medical personnel. The medical officer in charge of the MTF serves as the custodian of the HRECs and CEMRs. Medical officers oversee the HRECs and CEMRs for the members of the units and civilian employees for whom they supply primary medical care. They are also in charge of the HRECs, CEMRs, and the records of other individuals receiving treatment from the MTF.

C-9. Health records are important for the conservation and improvement of the patient's health. Therefore, medical officers will ensure that all pertinent information is promptly entered in the HREC or CEMR in their custody. If any such pertinent information has been omitted, the medical officer will take immediate action to obtain such information from the proper authority and include it in the HREC.

C-10. Public Law 104-191, *Health Insurance Portability and Accountability Act of 1996*, provides for the privacy rights and protection of health information of Soldiers while ensuring necessary and required health or medical information is accessible to medical personnel and other appropriate entities. This applies whether the Soldier is deployed or at home station, whether the information is written, verbal, or in digital format.

C-11. Detainees are afforded safeguards to patient confidences and privacy within constraints of U.S. law, whether the information is entered in electronic format, written down, or verbally presented. Medical records for enemy prisoner of war or detainees will be identified by the interment serial number. If an interment serial number has not been assigned, the individual will be identified by the capture tag number. Once the individual has been processed by the theater interment facility, the individual will be assigned an interment serial number and the HREC is annotated appropriately. For additional information on AHS support to detainee operations, refer to ATP 4-02.46.

HEALTH RECORDS FOR DEPLOYED SOLDIERS

C-12. The HREC of deployed Soldiers and the CEMR of deployed civilians will not accompany them to the combat area. The supporting MTF will initiate a DD Form 2766 (*Adult Preventive and Chronic Care Flowsheet*), DD Form 2766C (*Adult Prevention and Chronic Care Flowsheet [Continuation Sheet]*), DD Form 2795 (*Pre-Deployment Health Assessment*), and DD Form 2796 (*Post Deployment Health Assessment [PDHA]*). If an individual deploys, the DD Form 2766 and DD Form 2766C will be photocopied prior to deployment, and the photocopies will be kept in the individual's medical record. The original DD Form 2766 and any DD Form 2766C will accompany the individual to the field. The DD Form 2766 serves as the treatment folder for the individual who is deployed. Other forms, such as DD Form 2766C, DD Form 2795, DD Form 2796, and SF Form 600, will be filed on the fastener inside DD Form 2766. The photocopies of the DD Form 2766 and DD Form 2766C will be removed and shredded when the originals are placed back into the HREC or CEMR. Forms that had been filed inside the DD Form 2766 folder will be removed and placed in the HREC or CEMR.

C-13. When processing individuals for deployment, the MTF and dental treatment facility will audit everyone's HREC or CEMR and record essential health and dental care information on DD Form 2766. If a HREC or CEMR is not available, DD Form 2766 will be completed based on individual interviews and any other locally available data. A HREC may not be available for most individual ready reserve personnel, individual mobilization augmentees, and retired personnel because these HREC may remain on file at the Human Resources Command or the Department of Veterans Affairs.

C-14. Upon notification of deployment, all military personnel will complete DD Form 2795. A copy of the form will be filed on the fastener inside the DD Form 2766 folder, one copy will remain in the HREC, and the original form will be sent to the Armed Forces Health Surveillance Center. If the deployed individual is taking part in a classified operation, the DD Form 2795 is still required, but the form will be maintained only in the personnel folder.

C-15. The completed DD Form 2766 and a copy of any printout from an automated immunization tracking system will be provided to the individual's command or to the individual, and then handed off to the MTF in the AO responsible for providing primary medical care to that individual. That MTF will maintain the DD Form 2766 as an outpatient field file for reference as needed. The MTF will ensure the blood type from a verified blood bank typing is recorded accurately. The field file will consist of, in part, DD Form 2766, DD Form 2795, and possibly DD Form 2766C, DD Form 2796, SF 600, SF 558 (*Medical Record - Emergency Care and Treatment [Patient]*), SF 603 (*Medical Record - Dental*), or DD Form 1380. These forms will be filed on the fastener inside the DD Form 2766. If DD Form 2766 is not available, the individual's field file may be managed as a drop file (forms not attached) and integrated into the DD Form 2766 when it is available.

Storage of Health Records and Civilian Employee Records

C-16. Deployed (Roles 1 and 2) MTFs will secure a field chest or field file containers in quantities sufficient for the troop and civilian employee population supported. They will maintain the DD Form 2766 for everyone receiving primary medical care from their MTF.

Establishment and Management of the Field File in the Operational Area

C-17. A DD Form 2766 and the medical records identified above will be maintained by medical companies operating a Role 2 MTF or the medical platoon or section operating a Role 1 MTF, or the records will be handed off to the MTF providing the individual primary care. Supported units will be required to provide the primary care MTF a battle roster of personnel assigned. This roster should be provided when personnel assignment changes are made or upon request.

C-18. The MTF, when possible, will attempt to ensure that the HREC or CEMR accompanies the medically evacuated individual. If an individual's primary MTF changes, the HREC or CEMR will be transferred to the gaining MTF. If an individual requires hospital admission, every attempt will be made to forward the HREC or CEMR to the admitting hospital.

C-19. When the MTF determines an individual was evacuated without the DD Form 2766 and other medical records in the file, the Soldier's DD Form 2766 and other medical records are forwarded to the medical command headquarters responsible for regulating patients out of the operational area. The medical command headquarters forwards the outpatient field file to the hospital where the patient was evacuated. The hospital patient administration section will attach the file to the inpatient chart, and the file is evacuated with the patient out of the operational area or theater. If the Role 3 MTF has an electronic medical record capability, the medical information contained in the handwritten record should be entered into the electronic medical record system at the soonest time possible.

SECTION II – REPORTS

C-20. Most organizations have reporting requirements in the form of a standardized report or a locally created format. The proponent publication for standardized reporting format is FM 6-99. The reports described in this section are the standardized medical reports required of all MTFs in the OE and should not be modified. Maintaining a standardized format allows for report consolidation as the reports are forwarded to higher commands or higher medical command and control organizations. The reporting frequency and a sample format of a report used by a unit should be included in the unit tactical SOP.

DAILY BLOOD REPORT

C-21. The daily blood report (DBLDREP) is a standardized report used to convey unit blood supply to medical staff and higher headquarters. This report is utilized by any MTF that has a blood supply. The

standardized blood report (DBLDREP) can be found in FM 6-99 as REPORT NUMBER: D001. For additional information on the use and disposition of the DBLDREP, refer to ATP 4-02.1.

MEDICAL SITUATION REPORT

C-22. The medical situation report is a standardized report used to convey a quick, consolidated medical status report as a snapshot instead of a full report. This report is similar to the NATO commander's medical report (COMMEDREP) STANAG 2020, NATO ATP-105. The standardized medical situation report can be found in FM 6-99 as REPORT NUMBER: M040. For more information on the medical situation report, refer to ATP 4-02.55.

MEDICAL STATUS REPORT

C-23. The medical status report is a standardized report used to provide status on hospitalization, incidence or frequency of disease, and unresolved problems or items of significant interest having impact upon the overall medical capability or health of the command. The standardized medical status report can be found in FM 6-99 as REPORT NUMBER: M050 {USMTF #B907}. For more information on the medical status report, refer to ATP 4-02.55.

PERSONNEL STATUS REPORT

C-24. The personnel status report is a standardized report used to convey the status of unit personnel. The standardized personnel status report can be found in FM 6-99 as REPORT NUMBER: P005 {USMTF # G880}. For more information on the personnel status report, refer to FM 1-0 and AR 638-8.

DAILY DISPOSITION LOG

C-25. The daily disposition log is a non-standardized report that may be created in a locally required format. The daily disposition log is maintained by all MTFs. An example of a daily disposition log is provided in figure C-1.

Daily Disposition Log

Date-Time Group: 160230LJAN94

Name	*Grade*	*Unit/nation*	*Injury/illness status*	*Disposition time*
JOHANNIK, L. M.	E8	3 ID/U.S	GSW, L LEG/WIA	R2MTF/0900L
MULLANEY, M.	E9	2/327 INF, 101 ABN (ASSLT)/U.S.	LACERATION L HAND/WIA	R2MTF/1007L
NELSON, C.	O5	C CO 426 BSB, 101 ABN (AASLT)/U.S.	HEAD INJURY/WIA	R2MTF/1056L
CHAN, J.	E9	82 ABN/U.S.	UNCONTROLLED VOMITING/BW/WIA	R2MTF/1234L
GAVIN, J.	O6	505 ABN, 82 ABN/U.S.	COSR/DNBI	R2MTF/1414L
CONRAD, J.		DETAINEE	FRAG WOUND OF HEAD/DOA/KIA	MA/1459L
HOLLEIN, J.	O3	2 CHEM BN	CHEMICAL INJURY SYSTEMIC/WIA	586 FH/1634L
WINTERS, R.	O4	506 ABN/U.S.	PUNCTURE WOUND R ANKLE/NBI	R2MTF/1834L
TAYLOR, M.	O8	101 ABN/U.S.	BURN, 3D DEGREE CHEST/WIA/DOW	MA/1945L

LEGEND

AASLT	air assault	DNBI	disease and nonbattle injury	KIA	killed in action
ABN	airborne	DOA	dead on arrival	L	left
BN	battalion	DOW	died of wounds	MA	mortuary affairs
BSB	brigade support battalion	EPW	enemy prisoner of war	MTF	medical treatment facility
BW	biological warfare agent	FH	field hospital	NBI	nonbattle injury
CHEM	chemical	FRAG	fragmentation wound	R	right
CO	company	GSW	gunshot wound	R2	Role 2
COSR	combat and operational stress reaction	ID	infantry division	U.S.	United States
		INF	infantry	WIA	wounded in action

Figure C-1. Example daily disposition log

C-26. Regardless of the format, the locally required format should be included in the tactical SOP. The information from this log is extracted, when required, and provided to the S-1 or supported unit requesting the information. The daily disposition log is also the primary source document for information needed in the preparation of DA Form 1156 (*Casualty Feeder Card*), patient summary report, and the patient evacuation and mortality report. The daily disposition log can be modified to include other information if required by higher headquarters.

C-27. The daily disposition log does not lend itself to transmission. However, the information may be extracted and provided via courier or electronic means to agencies responsible for preparing consolidated reports or casualty feeder reports.

PATIENT SUMMARY REPORT

C-28. The patient summary report is a non-standardized report that may be created in a locally required format. The patient summary report is maintained by all MTFs. Figure C-2 is provided as an example format, regardless of the format the locally required format should be included in the tactical SOP. The patient summary report is a weekly report compiled as of 0001 hours, Sunday. It is prepared by MTFs and is submitted to respective surgeons as required. The command surgeon can, however, dictate the frequency of submission to meet command requirements. Furthermore, the format can be adjusted if additional information is required by higher headquarters.

PATIENT SUMMARY REPORT

DTG: 170345LMAR98

FROM: 160001LMAR98 TO: 162359LMAR98

PATIENTS		WIA	NBI	DISEASE	*NP	TOTAL
ALPHA	U.S.	2	1	1		4
BRAVO	ALLIED	1			1	2
CHARLIE	EPW/DETAINEE	5		4		9
TOTALS		7	1	5	1	15
DISPOSITION						
DELTA	RETURNED TO DUTY	3		1		4
ECHO	EVACUATED BY AIR	1				1
FOXTROT	EVACUATED BY GROUND	2	1	4	1	8
GOLD	DOW EN ROUTE	1				1
HOTEL	DOW IN MTF	1				1

SAMPLE

Note: This report, when completed, will be classified in accordance with local command policy – encode/encrypt fro transmission

* Neuropsychiatric or stress-related patients should be reported in this category.

LEGEND

DOW	died of wounds	NBI	nonbattle injury
DTG	date-time group	NP	neuropsychiatric
EPW	enemy prisoner of war	U.S.	United States
MTF	medical treatment facility	WIA	wounded in action

Figure C-2. Example of a patient summary report

SECTION III – PLANNING TOOLS

C-29. This section provides several planning tools in the form of matrices for planning or controlling AHS support operations. This section is not all encompassing as there are numerous planning tools such as:

- Joint Medical Planning Tool (JMPT).
- Logistics Estimation Workbook (LEW).
- Operational Logistics (OPLOG) Planner.

C-30. In addition to the OPLOG planner, the Combined Arms Support Command planning data branch publishes several spreadsheet-based estimation tools and are located on the Army Sustainment Resource portal. These tools include—

- Class III bulk estimation tool allowing the user to develop the Class III bulk estimates at the line item number level by varying the usage profile.
- Convoy Planning Tool that estimates the time a convoy will take based on factors such as distance, speed, and number of vehicles in the convoy.
- Food and Water Tool focusing on developing different meal plans for specific populations.
- Platform Calculator providing an estimate of how many pallets and specific vehicles are needed to carry a given quantity of supplies. Results are shown by class of supply and total.
- Quick Logistics Estimation Tool providing estimated requirements for one or multiple units for each class of supply using minimum-average-maximum.

C-31. Any planning tool used should be modified as required for each specific mission and scenario. For additional information on AHS support planning and synchronization, refer to ATP 4-02.55.

PLANNING MATRIX

C-32. This matrix provides the leader with a quick reference to unit locations and supported and supporting units. Whenever planning for AHS support, all medical functions must be considered, even if the units providing this support are not located in the immediate vicinity. Table C-1 on page C-6 through page C-9 provides a sample format for a planning matrix inclusive of all medical functions.

Table C-1. Sample format for a planning matrix (medical functions)

Medical function	*Units*	*Location*	*Supported units*	*Location*	*Remarks*
MEDICAL COMMAND AND CONTROL	2d Brigade Combat Team Headquarters	Vicinity of NT413874 near the BSA	2d Brigade Combat Team and attached units in the AO	On a line from NT380920 to NT460902 to NT460830 to NT380830 back to NT380920 inclusive. This area encompass-es the brigade's AO.	The brigade command headquarters and planning elements coordinate and direct operations and security throughout the brigade's AO as directed by the brigade's command and higher command authorities guidance and planning.

Table C-1. Sample format for a planning matrix (medical functions) (continued)

Medical function	*Units*	*Location*	*Supported units*	*Location*	*Remarks*
MEDICAL TREATMENT Role 1	1-8th Infantry Battalion Aid Station	Vicinity of NT405851	1-8th Infantry and attachments	Vicinity of NT402842	Role 1 medical care provided at or near the point of injury or illness by combat medics of 1-8th Infantry.
Role 2	204th Medical Company BSB	Vicinity of NT419875	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Role 2 medical care for the brigade is provided as well as Role 1 care for units without organic AHS support. Provides AHS area support throughout the brigade's AO.
HOSPITALIZATION	28th Hospital Center	Vicinity of NT442904	Brigade units and attachments to include joint and multinational partners	Inclusive of the brigade's AO	Provides Role 3 AHS support for all entitled elements within the brigade's AO.
MEDICAL EVACUATION Casualty collection points	1-8th Infantry	Vicinity of NT402842	1-8th Infantry and attachments	Vicinity of NT402837	Casualty collection points located under cover and concealment near the engagement area to the rear of engaged friendly element. Treatment is continued or initiated, MEDEVAC or CASEVAC to the BAS or higher roles of care dependent on operations, severity of wounds, and availability of transport assets.
Patient collection points	1-8th Infantry	Vicinity of NT405851	1-8th Infantry and attachments	Vicinity of NT402837	Patient collection point is collocated with the BAS for patient waiting for MEDEVAC to higher roles of care or waiting transport back to their units.

Table C-1. Sample format for a planning matrix (medical functions) (continued)

Medical function	*Units*	*Location*	*Supported units*	*Location*	*Remarks*
Role 2 ground (evacuation squad forward) ambulances	204th Medical Company BSB	Vicinity of NT419875	1-8th Infantry and attachments	Vicinity of NT402837	Role 2 (evacuation squad forward) ground ambulances located at 1-8th BAS to transport appropriate patients to higher roles (Role 2) of care.
Air ambulances	2-4th General Support Aviation Battalion	Vicinity of NT419875	2d Brigade Combat Team with attachments with priority given to engaged brigade units	Inclusive of the brigade's AO	Medical evacuation by air ambulance support is provided from the BSA with forward employment of assets dependent upon operational requirements.
MEDICAL LOGISTICS Medical supply and equipment	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Replenishment of Class VIII supply is the function of the BMSO primarily by the management of MESs and basic ordering of replenishment.
Blood	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Minimal blood capability at the medical company. Additional blood bank services are provided by the supporting Role 3 MTF. When a forward surgical team is attached, blood bank requirements must be adjusted to meet the higher anticipated demand for the product.
DENTAL SERVICES	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Provides Level 1 dental support to brigade units. Level 2 dental support is provided by Role 3 MTF. Level 3 dental support is provided by 207th dental company (area support).

Table C-1. Sample format for a planning matrix (medical functions) (continued)

Medical function	*Units*	*Location*	*Supported units*	*Location*	*Remarks*
OPERATIONAL PUBLIC HEALTH	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Provides Role 2 operational public health services on an area support basis. Additional support provided by the Role 3 MTFs such as medical laboratory support if required. AHS support for all entitled elements within the brigade's AO.
COMBAT AND OPERATIONAL STRESS CONTROL	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Provides systematic support on an area basis to all organizations within the brigade. Additional support provided by the Role 3 MTFs if required.
VETERINARY SERVICES Animal medicine	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Provides Role 2 veterinary medicine services on an area support basis.
Food Inspection	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Provides Role 2 food inspection services on an area support basis.
MEDICAL LABORATORY SERVICES	204th Medical Company BSB	Vicinity of NT410975	2d Brigade Combat Team and attachments	Inclusive of the brigade's AO	Role 2 laboratory capability with enhanced capacity and capability provided by the supporting Role 3 MTF. Higher order capacity is provided by the area medical laboratory.

LEGEND

AHS	Army Health System	BSB	brigade support battalion
AO	area of operation	CASEVAC	casualty evacuation
BAS	battalion aid station	MEDEVAC	medical evacuation
BMSO	brigade medical supply office	MES	medical equipment set
BSA	brigade support area	MTF	medical treatment facility

EXECUTION MATRIX

C-33. The execution matrix (table C-2) provides a simplified format for delineating critical tasks. It is organized by time sequence and permits the leader to see immediately, what events should be taking place. The elements included are—

- Item Number: An item number is assigned to identify the event.
- When: This indicates, as closely as possible, the date-time group an event should take place.
- Who: This indicates the specific unit and equipment required to complete the task.
- What: This identifies the specific event that must occur.
- Where: This indicates the location where the event is to occur. It is depicted by grid coordinates.
- Remarks: Additional information is provided, if required.

Table C-2. Sample format for an execution matrix

Item	*When*	*Who*	*What*	*Where*	*Remarks*
1	Date-time group	Litter teams	2 teams forward sited with C Company	Line of departure/start point (grid coordinates)	Augmentation support
2	Date-time group	Treatment Team	Treatment team displaces forward; establishes	Phase Line Red (grid coordinates)	Link up with 2LT Bannon

INFORMATION DISPLAY OR STATUS CHART

C-34. The commander may want information displayed graphically to make a quick appraisal of the situation or status of key functions. This information may be displayed using a bubble chart (table C-3) with each function color-coded depending upon its readiness status. An example of color-codes and corresponding readiness status is—

- GREEN—80 percent or greater combat capability remains (full strength).
- AMBER—60 to 79 percent combat capability remains (mission capable with only minor deficiencies).
- RED—40 to 59 percent combat capability remains (marginally mission capable with major deficiencies).
- BLACK—less than 40 percent combat capability remains (NOT mission capable).

Table C-3. Sample format for an informational display or status chart

Medical function	*Pre-engagement*	*Engagement*	*Post-engagement*	*Reconstitution*
Medical Command and Control				
Medical Treatment				
Hospitalization				
Medical Evacuation				
Medical Logistics				
Dental Services				
Operational Public Health				
Combat and Operational Stress Control				
Veterinary Services				
Medical Laboratory Services				

SYNCHRONIZATION MATRIX

C-35. A synchronization matrix can be used to provide a highly visible, clear method of ensuring planners address all medical functions when they are developing courses of action. The matrix shows the relationships between activities, units, support functions, and key events. Sample formats for synchronization matrices are provided in table C-4.

Table C-4. Sample format for an Army Health System support synchronization matrix

Tasks	*TAA*	*LD/SP*	*PL Red*	*PL Blue*	*Objective*	*Remarks*
CBT medic	NR393562 130200ZMar	NR503633 130500ZMar	NR893743	NS367399	NS479418	Goes forward with assigned maneuver unit.
Litter team	NR393562 130200ZMar	NR503633 130500ZMar	NR783632	NS313897	NS43709	Augmentation support; sited with units in contact.
CCP			NR773555	NS360537	NS421665	Unmanned CCP.
AXP			NR703341	NS257308	NS408843	Medical evacuation personnel staff point.
MED PLT						
TM A	NR393562 130200ZMar	NR503633 130500ZMar	NR753633	NS102654	NS102654	Medical platoon establishes BAS (Role 1 MTF); Leapfrog treatment teams, if required.
TM B	NR393562 130200ZMar	NR503633 130500ZMar	NR753633	NR753633	NS423001	
BSMC	NR393562 130200ZMar	NR503633 131105ZMar	NR773555	NS360537	NS421665	Establish Role 2 MTF in TAA.
AA	NR393562 130200ZMar	NR503633 131105ZMar	NR703341	NS257308	NS408843	Forward sited AA at AXP.
FRSD	NR393562 130200ZMar	NR503633	NR773555	NS360537	NS421665	Collocates with BSMC and ERPS.

LEGEND

AA	air ambulance	Mar	March
AXP	ambulance exchange point	MED PLT	medical platoon
BAS	battalion aid station	MTF	medical treatment facility
BSMC	brigade support medical company	PL	phase line
CBT	combat	SP	start point
CCP	casualty collection point	TAA	tactical assembly area
ERPS	en route patient staging system	TM	team
FRSD	forward resuscitative surgery detachment	Z	Zulu
LD	line of departure		

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Appendix D

Management of Ground Evacuation Operations

Conducting ground evacuation operations, both CASEVAC and MEDEVAC, is challenging and personnel intensive. A ground evacuation operation should be treated as a deliberate operation that is rehearsed and synchronized with the combatant commander's support plan.

SECTION I – AMBULANCE SHUTTLE SYSTEM OPERATIONS

D-1. The ambulance shuttle system (figure D-1) is an effective and flexible method of employing ambulances to maintain a steady stream of evacuation. The ambulance shuttle system includes an AXP, an ALP, ARP, or an ambulance control point (ACP). Communication systems are vital to the effective use of the full ambulance shuttle system.

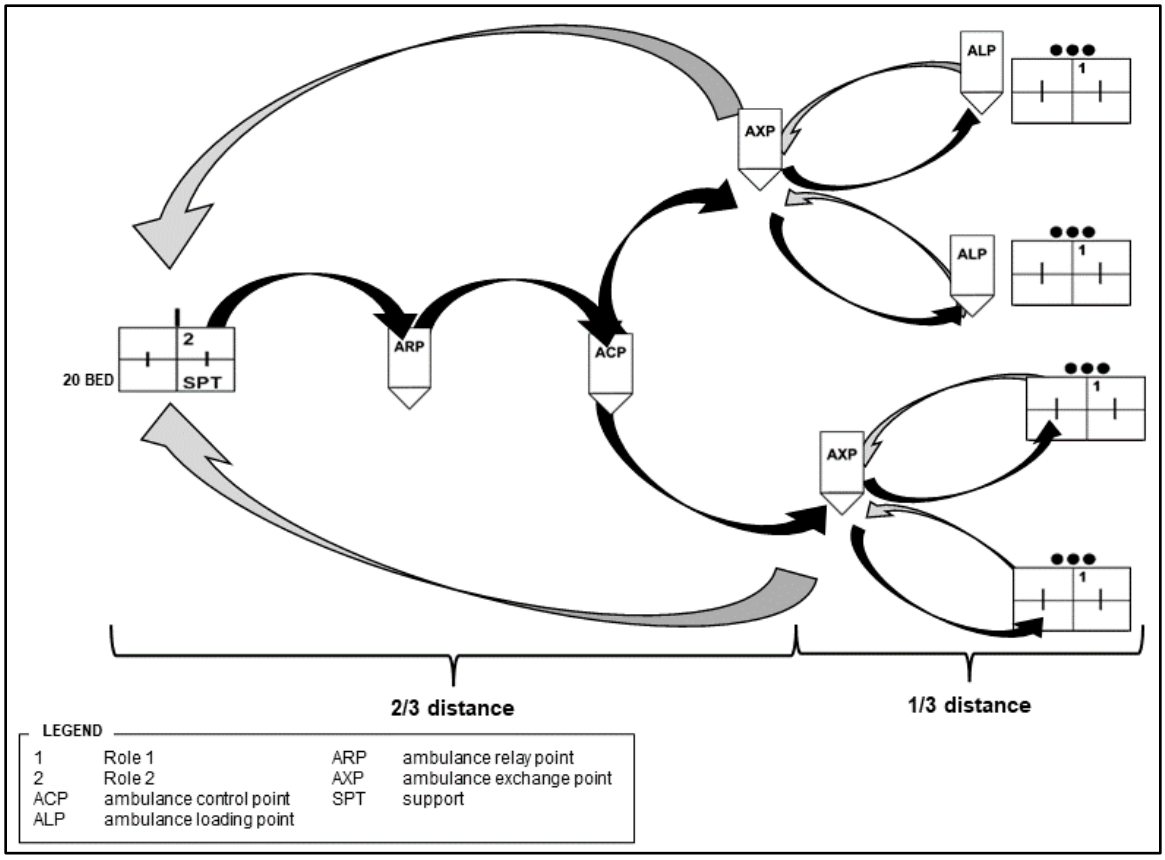


Figure D-1. Complete ambulance shuttle system

D-2. An *ambulance exchange point* is a place on the ground where a patient is transferred from one evacuation platform to another (such as litter to vehicle; tracked vehicle to wheeled vehicle; ground vehicle to air ambulance) en route to an MTF (ATP 4-02.2). The *ambulance loading point* is the point in the shuttle system where one or more ambulances are stationed ready to receive patients for evacuation (ATP 4-02.2).

The ALPs are commonly called "manned AXPs"; however, this term use is incorrect. The ALP could be at a MTF or an AXP. The *ambulance relay point* is point in the shuttle system where one or more empty ambulances are stationed to advance to a loading point or to the next relay post to replace departed ambulances (ATP 4-02.2). The Role 2 evacuation platoon headquarters or a point forward of the Role 2 could be an ARP. The *ambulance control point* is a manned traffic regulating, often stationed at a crossroad or road junction, where ambulances are directed to one of two or more directions to reach loading points and medical treatment facilities (ATP 4-02.2). The ambulance control point consists of a Soldier(s) stationed at a crossroad or road junction and acts as a switch for ambulances advancing to one of multiple ALPs. This point is an added level of control between ALPs and ARPs to ensure the effective replenishment of empty ambulances to ALPs.

D-3. Although the ambulance shuttle system can be employed in part by Role 1, the ambulance shuttle system is better utilized by Role 2 evacuation platoons to maximize the effectiveness of the ambulance fleet. Communication between each point must be established, rehearsed, and executed for the ambulance shuttle system to be effective. For more information on the use of the ambulance shuttle system, refer to ATP 4-02.2.

ABBREVIATED AMBULANCE SHUTTLE SYSTEM

D-4. An abbreviated version of the ambulance shuttle system (figure D-2) can be used to improve travel times for the ground evacuation of patients versus a complete ambulance shuttle system. In the abbreviated ambulance shuttle system control of ambulance distribution is sacrificed at longer distances or in environments where communications are denied by enemy. Communication between each node of the ambulance shuttle system is paramount for the successful allocation and timely response of empty ambulances.

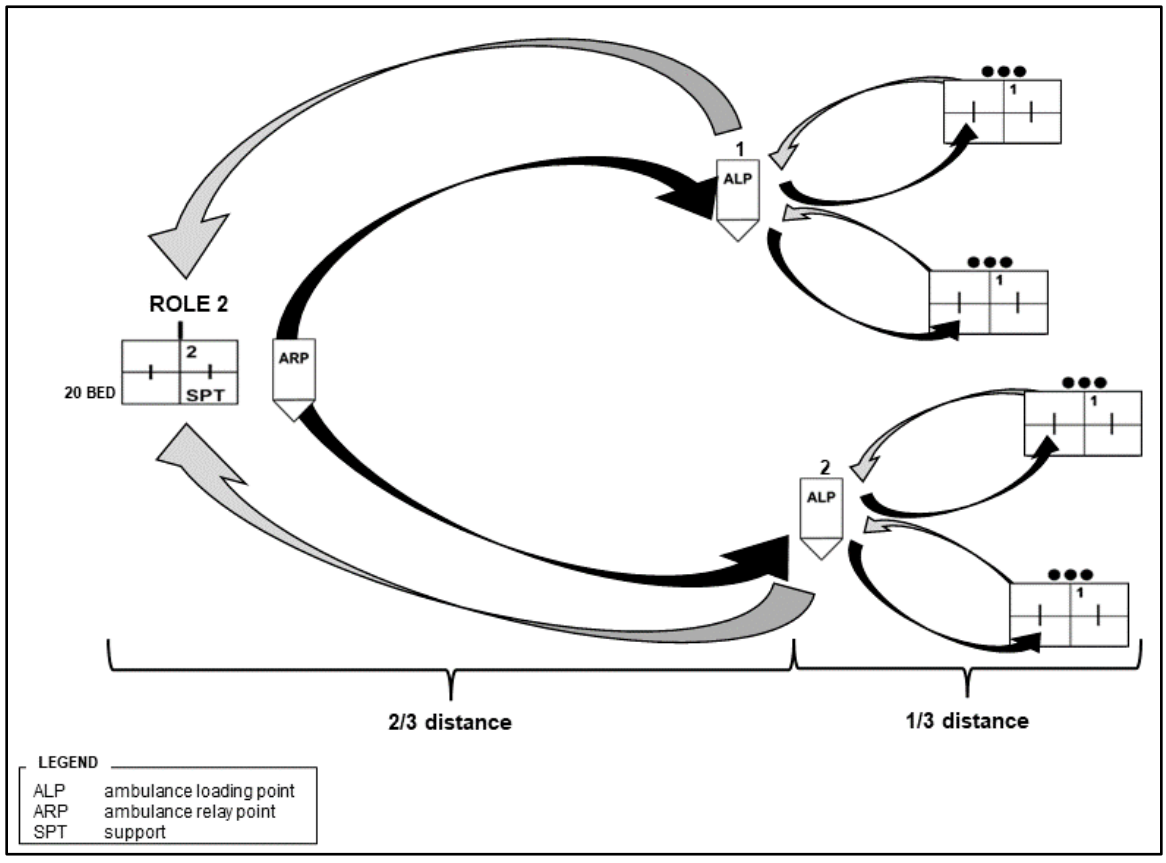


Figure D-2. Abbreviated ambulance shuttle system

D-5. Army Health System support planners may preposition DS ambulances from the Role 2 with Role 1 MTFs, which provides the Role 1 with an ALP. The Role 2 AXP or ALP will be templated on the AHS support plan with the area support ambulances from the Role 2 prepositioned at the AXP or ALP.

D-6. One benefit of the abbreviated ambulance shuttle system is there are fewer points to control. The reduced number of control points may increase the travel times to replenish the ALPs. The increase time and distance should be accounted for during AHS support planning.

AMBULANCE SWAP SYSTEM

D-7. The ambulance swap system (figure D-3), which has been observed in training environments, uses the Role 1 MTF as the ALP and the Role 2 MTF as the ARP. Using DS ambulances at Role 1, the intent is to "swap" ambulances between Role 2 MTF and Role 1 MTF as they are used.

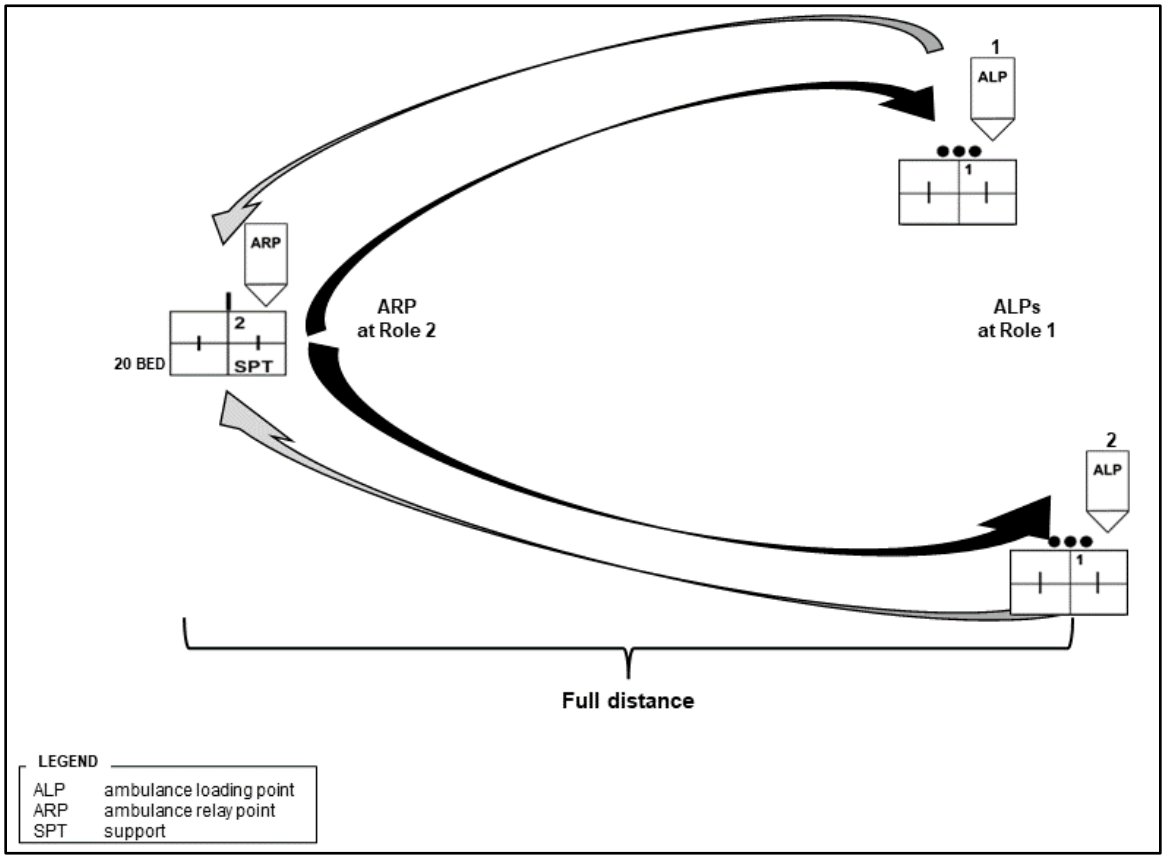


Figure D-3. Ambulance swap system at Role 1

D-8. This system often fails at great distances due to a lack of responsiveness from returning or empty ambulances. This system is further complicated in formations that have a mixed fleet of ambulances as seen in the ABCT and SBCT.

SECTION II – AMBULANCE EXCHANGE POINTS

D-9. The AXP may be staffed or unstaffed. Unstaffed AXPs may serve as rendezvous points for the rapid transfer of a patient from one transportation mode to another. In most cases, these points will not be staffed. Ambulance exchange points are positions where patients are exchanged from one evacuation platform to another. They are established for—

- Moving patients from slower vehicles to faster vehicles (evacuation efficiency).
- Allowing air and ground assets a safer location to load or transfer patients (risk reduction).
- Returning forward evacuation assets to the battlefield rapidly (medical economy of force).

D-10. An AXP is a predetermined point that may be activated by events, such as the passing of phase lines, or for specific time periods. Ambulance exchange points are moved frequently to reduce their signature and enhance the survivability of the ambulance assets. Their use is extremely important when a tracked vehicle is evacuating patients. As tracked vehicles are slower than wheeled vehicles, AXPs should be established as close as possible to the supported units to reduce the time and distance requirements for the tracked vehicles.

D-11. The AXP is one point or location in an ambulance shuttle system. For additional information on the ambulance shuttle system, refer to paragraph D-1 on page D-1. Ambulance exchange points are normally used between a Role 1 MTF and the Role 2 MTF. The direct support Role 2 ambulance teams located at the Role 1 MTF move patients to the AXP. The patients are then transferred to the waiting area support Role 2 ambulances and transported to the Role 2 MTF. Unless the patient is being transferred from a slower vehicle to a faster vehicle, the AXP will add time to the patient's evacuation time. However, rehearsing AXP scenarios beforehand will lessen the amount of additional time required if such a stop is required.

D-12. In a LSCO environment, Role 1 MTFs are more flexible in closing distances to CCPs reducing the need for additional transfer points; however, Role 1 MTFs can effectively use AXPs at battalion level when risk to medical resources prevents the Role 1 MTF from closing the distance to the forward line of own troops. In this way, fewer medical resources are committed to high-risk areas, but evacuation travel times are traded for this risk reduction. For more information of utilizing an AXP at a Role 1 MTF, refer to ATP 4-02.4.

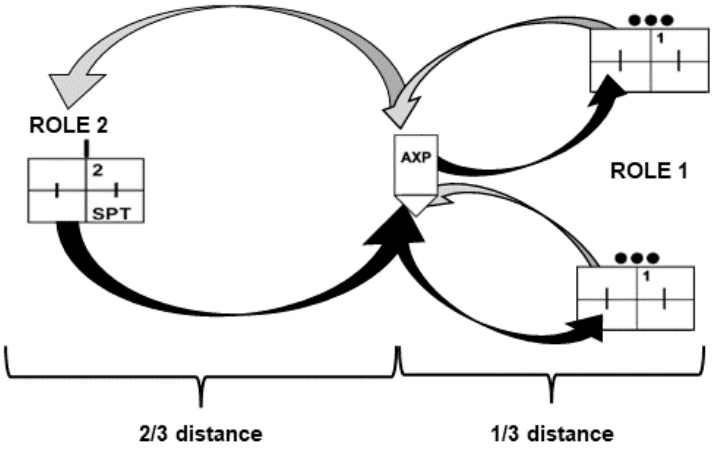
AMBULANCE EXCHANGE POINT PLACEMENT AND EXECUTION CONSIDERATIONS

D-13. The AXP may serve three battalions or squadrons (BSMC); three brigades (reinforcing mission) (MCAS), or a specific number of nondivisional Role 1 MTFs (MCAS). Therefore, the AXP should be centrally located to reduce ambulance turnaround and enhance the timely execution of the MEDEVAC mission. This may not always be possible due to terrain or other factors. The distance from the supported Role 1 MTF depends upon the terrain, the tactical situation, the type of vehicles being operated (wheeled versus tracked), and the type of operation being conducted (offense, defense, or retrograde). Additionally, the medical company has an area support mission within the support area. All ambulance assets cannot be forward sited to units in contact as sufficient assets must remain in the support area to accomplish the area support mission.

D-14. Ambulance exchange points should be located, usually one-third the distance rearward from support units, where they can best provide the required support to reduce ambulance turnaround time to supported units. Distances between each sending element and receiving element should be taken into consideration. Ambulance exchange points are often placed two-thirds of the distance (figure D-4 on page D-5) from the receiving elements to facilitate rapid returns of evacuation platforms to collect more patients. Ambulance exchange point placement considerations include locations—

- Accessible by both sending and receiving evacuation platforms.
- Not in areas likely to be attacked or denied by the enemy.
- Easily identifiable by both parties.
- Capable of supporting rapid casualty transfer and location movement.

- *Ambulance exchange points (AXPs)* are predetermined positions where patients are exchanged from one evacuation platform to another. Plan AXPs as if they will be done during periods of limited visibility.
- Forward of the Role 1 battalion aid station (BAS), AXPs are used if there is a threat of enemy ground activities, large concentrations of lethal weapons systems, and/or effective use of antiaircraft weapons threaten a BAS position closer to the forward line of troops, or if the BAS becomes overextended.
- They are best placed 1/3 the distance from casualty collection points or Role 1s to maintain a medical economy of force to the forward lines.
- AXPs will add time to patient's wait for a provider's care; if AXPs are not rehearsed, that time may be significant.
- *Reconnaissance* locations whenever possible to ensure the AXP is suitable for rapid exchanges.
- Ensure the radio frequency is published for AXPs to aid in each vehicle finding each other at night.
- Do not place AXPs in areas likely to be attacked or denied by the enemy.
- Notify the receiving medical node as soon as possible to allow them time to reach the AXP.
- Brigade AXPs can use the ambulance shuttle system to improve response times to their AXPs of the Role 2 is further away in time/distance.



LEGEND

AXP	ambulance exchange point
SPT	support

Figure D-4. Ambulance exchange point placement and considerations

ESTABLISHING AND REHEARSING A COMMUNICATION PLAN

D-15. Establishing and rehearsing a communication plan following the pneumonic PACE for AXPs will improve the effectiveness of the AXP use. An example of a PACE plan for AXP link is—

- Primary (P)—Joint Battle Command-Platform free text message.
- Alternate (A)—FM radio communications.
- Contingency (C)—Use of a buzz saw at night for both air and ground.
- Emergency (E)—Use of vehicle white light or flare.

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Appendix E

Telemedicine Tactics, Techniques, and Procedures

Today's force projection Army (and the mission it is required to perform) increases the need for rapid acquisition, aggressive initial emergency medical treatment, and timely MEDEVAC of patients. The use of new technologies and techniques can enhance operational medicine's ability to provide AHS support. Medical communications for combat casualty care provides the essential links with AHS support personnel, with other units and commands in the operational area, and with other theater organizations. This appendix will discuss the employment of telemedicine and those techniques that may increase the survivability of Soldiers who are wounded in action.

SECTION I – TELEMEDICINE

E-1. Telemedicine, also referred to as virtual health, encompasses a set of tools that leverages information and communication technologies to extend medical care across geographic distances and boundaries. Unfortunately, the terms telemedicine and virtual health are often misinterpreted by the public to be synonymous with video visits.

E-2. The first use of telemedicine was recorded in 1968, and the U.S. military has been testing telemedicine solutions for the MHS for nearly 30 years, however telemedicine was not recognized as an operational requirement until 2017. Although U.S. Army specific requirements for telemedicine remain vague, it is clear from experience and research that operational virtual health is part of a tool set that is useful for management of complex patients in austere environments and the OE.

E-3. Operational virtual health provides the resource of clinical expertise to the point of need. When clinicians managing patients reach the limit of their knowledge, skills, or abilities, two options exist for ensuring a patient receives optimal care: evacuate or call for help. Increasingly, calling for help has been identified as best practice because calling ensures the resources match the requirement. More importantly, telemedicine has improved the care provided to the patient. Telemedicine provided during high-fidelity medical simulation of prolonged field care has been demonstrated to reduce mortality and improve quality of care provided by less experienced providers.

E-4. Telemedicine—conversations between two caregivers—can be accomplished through telementoring, teleconsultation, or a combination of the two. The conversations simultaneously enhance the knowledge, skills, and abilities of the local caregiver through education during the mentoring or consultation as well as that of the remote expert (advisor) through increased understanding of austere and operational contexts.

TELEMENTORING

E-5. Telementoring is a process by which a medical professional with greater knowledge and experience guides another medical professional with less knowledge who is treating a patient at a remote location. Telementoring assists the combat medic in providing lifesaving measures. The primary situation is a mentor (physician or PA) at a Role 1 guiding a combat medic in the treatment of a wounded Soldier on the battlefield. This guidance enables the combat medic to make an accurate assessment of the patient's condition and treat the patient according to the guidance provided by the mentor. Telementoring is ONLY provided on an "as needed" basis and is not used on every patient.

E-6. Combat operations in austere settings can overwhelm health care resources and produce resource limited contexts of prolonged care, and MASCAL situations expected from LSCO. Telementoring offers a

safe, viable adjunct to health care in these settings to increase capability of any caregiver at the point of need and thus increase capacity to manage casualties in these deployed environments.

E-7. Every deployed health care professional or local caregiver making use of telementoring is responsible for evaluating the appropriateness of applying it in the settings of any clinical situation. When telementoring modalities are used appropriately, telementoring can increase the operational reach of the deployed health care professionals to support the warfighter across the multidomain battlefield. Telementoring may be accomplished by—

- Minimum: Voice telephone connection with or without asynchronous media.
- Better: Voice connection WITH concurrent email or photo exchange (for example, send a photo of the call script, vital signs flowchart, the casualty care environment, and available kit) closely followed by a phone call.
- Best: Synchronous, real-time audio or video feeds with or without remote diagnostic equipment using the teleconsultation script as a guide.

TELECONSULTATION

E-8. The types of teleconsultations consist of emergent, urgent, and routine request. There is a spectrum of technology (phone, email, video teleconference, or remote health care monitoring) available for health care professionals to deliver telemedicine capabilities for the warfighter and provide emergent, urgent, and routine consultations.

E-9. For most routine cases, asynchronous consultation is often sufficient. For urgent and emergent cases, voice communications plus or minus images sent via email or text is recommended.

EMERGENT

E-10. Local caregivers must recognize when to use teleconsultation. Conceptually, the more severe the patient's injury or illness is, the earlier and more frequently the local caregiver should engage with the remote expert. If available, continuous monitoring for an extended consultation (for example, tele-critical care) should be employed. Emergent consults are for patients with critical illness or injury. Indications to consider critical care consultation are—

- Vital signs are very abnormal for more than 30 minutes where the—
  - Heart rate is less than 30 beats per minute or greater than 120 beats per minute.
  - Systolic blood pressure is less than 90 or greater than 200 millimeters of mercury.
  - Respiration rate is greater than 30 breaths per min.
  - Oxygen saturation is less than 88 percent.
  - Low urine output (less than 0.5 milliliters per kilogram per hour for greater than 2 hours).
  - Complex arrhythmias.
- Unfamiliarity with the medical issues, such as organ dysfunction or major physiology, derangements that would benefit from critical care consultation (for example, renal failure, liver failure, or severe anemia/thrombocytopenia.)
- Respiratory failure requiring advanced support (for example, intubation or mechanical ventilation).
- Hemodynamic instability, evidence of shock, or shock.
- Complex wounds.
- Severe infection, sepsis, or septic shock.
- Severe electrolyte abnormalities, often evidenced by pathognomonic electrocardiogram changes.
- Encephalopathy or severe traumatic brain injury with concern for elevated intracranial pressure.
- Poisonings or toxicology emergencies.
- Any questions regarding a patient with a life threatening or potentially life-threatening condition.
- Unique patient populations (for example, obstetrics or pediatrics) when there is a need for specialty consultation.

- Chemical casualty.
- Emergent teleconsultation may be accomplished by—
  - Minimum: Voice telephone call with next higher role of care provider reading from DD Form 1380 and a locally produced teleconsultation script.
  - Better: Use a locally produced teleconsultation report, such as a prolonged care flowsheet.
  - Best: Use the joint trauma system recommend virtual critical care consultation guide and send a picture or casualty capabilities as well as vital sign trends to the consultation via email or message using appropriate operational security and protections of patient privacy.

URGENT

E-11. Urgent consults are all other cases that do not fall under the routine or emergent categories. Urgent consults usually require specialty medical advice and would benefit for synchronous communication between the local caregiver and the remote consultant. Specialties include—

- General surgery.
- Orthopedic surgery.
- Pediatrics.
- Infectious disease.
- Toxicology.
- Hematology or oncology.
- Obstetrics or gynecology.
- Dental.
- Emergency medicine.
- Burn center.
- Veterinary military working dogs.

ROUTINE

E-12. Routine consults require a consultant response within 24 hours. Routine patients have NORMAL vital signs and are not at risk for deterioration within the next 24 hours. The care provider and patient have time to wait for a response. Some mission requirements demand more immediate medical decisions due to shorter time allotments for communications or operational context. Limitations due to time should encourage local caregiver to use urgent consultation systems.

E-13. Routine consults should use the Global Teleconsultation Platform (formerly known as PATH/HELP). In its current form, Global Teleconsultation Platform requires users to have a username and password. Individuals must request an account through the Global Teleconsultation Platform website to establish a username and password.

SPECIAL CONSIDERATIONS FOR BEHAVIORAL HEALTH PATIENTS DURING TELECONSULTATION

E-14. Embedded providers are responsible for triaging and screening patients to ensure they are appropriate for telehealth. Exclusionary criteria include, but are not limited to—

- Refusal to participate in virtual behavioral health.
- Acutely violent, unstable, impulsive, or agitated behavior.
- Need for special monitoring not available at the site (for example, substance withdrawal).
- Symptoms that could be exacerbated by video teleconference (for example, ideas of reference, psychosis, or thought insertion).
- Information which should be shared in person (for example, HIV positive).
- Hearing, visual, or cognitive deficits that limit the patient's ability to fully participate.

E-15. Appropriate uses of virtual behavioral health appointment in the deployed, rotational, or remote setting include, but are not limited to—

- Coordination of care for the stable patient.
- Continuity of care with rear-detachment or garrison behavioral health provider.
- Second opinion evaluations from a consultant.

E-16. The COSC detachment has been the primary means for providing behavioral health care in theater since Operation Enduring Freedom. These COSC detachments exclusively focus on specialty behavioral health care services, often operating independently from other medical services. The COSC detachment operates in a "hub and spoke" manner such that the COSC detachment is established at a forward base, and the behavioral health teams travel to other forward bases from their "home base" as part of battlefield circulation. The COSC clinics utilize traveling teams of behavioral health providers and technicians or telemedicine equipment to reach patients in remote areas. The COSC detachments in some instances might also be collocated at large, permanent restoration centers at Role 3.

SECTION II – TELEMEDICINE TECHNOLOGICAL SUPPORT

E-17. Clinicians use a variety of asynchronous tools like text messaging, email, and web-portals as well as phone calls and, when needed, video teleconferencing tools to provide medical services and communicate with each other every day. These tools are abundant and may be used to support care delivery in daily patient care, emergency care, deployed medicine, disaster medicine, and pandemics.

E-18. Telemedicine capability is a function of network resources, particularly bandwidth and latency, matched to the number of patients or encounters. While network resources may be robust and able to support multiple continuous remote monitoring encounters, they may rapidly diminish when supporting a real-time, high quality, video teleconference to facilitate a procedure.

E-19. Asynchronous support is unidirectional information flow (text or email), sometimes known as store and forward, refers to telemedicine delivered later than when the patient or another health care provider requests it. This could be text-based interactions, a specialist reviewing labs or records later, or a patient conducting an online assessment for medications. Asynchronous modes of communication require little bandwidth making it possible for many local caregivers to consult remote experts simultaneously, but it may take longer to receive responses.

E-20. Synchronous support is bidirectional information flow (voice, video, or both). Synchronous telemedicine refers to telemedicine performed in real-time via video or phone consult. In practice, this looks like an urgent care provider assessing symptoms of a sore throat and fever, a psychiatrist managing a patient's medication, or a primary care provider conducting a follow-up visit with a patient. Synchronous and higher quality modes of communication require increased amounts of network resources and increased training to support local caregiver needs. Increasing network resources increases local capabilities, encounter volume, or both. In some AOs, Global Teleconsultation Portal can convert to a synchronous specialty care appointment via video teleconference.

E-21. Teleconsultation is widely accessible and used daily in all environments without specialized communications equipment. Health care professionals may use technology that is already available for example phones (cell, radio, satellite), computers (voice, text, tablet application), photographs, or video media if operationally available.

E-22. Video teleconsultation is likely needed for procedural telementoring and, if needed, interactions between the consultant or expert and the patient, for example, direct-to-patient virtual care. The best technology available that optimizes the consultation should be used; however, precious time or resources should not be wasted to establish a video teleconference if lesser or more available technology is sufficient.

SECTION III – OPERATIONAL TELEMEDICINE BEST PRACTICES

E-23. Telemedicine, unfortunately, has one major limitation—it requires network resources. If the network is not available, it is not possible to conduct telemedicine. Telemedicine is nothing more than communication about a patient across space using technology. This may occur asynchronously using text, email, or web-portal. All of these require minimal network resources. Synchronous voice using radio or telephone call is sufficient for most consultations. Voice calls plus asynchronous file transfer (for example, images) is a highly flexible and adaptable solution for using telemedicine in very austere locations. Table E-1 provides the operational telemedicine best practices.

Table E-1. Operational telemedicine best practices

Setting capability	*Asynchronous*	*Synchronous*		*Continuous (synchronous with no signal loss indefinitely)*	
	Email, text, and images	*Voice*	*Video teleconference, low data* *Interruptible*	*Remote monitoring (vital signs)*	*Video teleconference, high data* *Uninterruptible*
Non-Urgent Provider Consult	X				
Urgent Provider Consult	X	X			
Non-Urgent Patient Encounter	X	X	X		
Optimal Critical Care Consultation	X	X	X		
Remote Monitoring	X	X	X	X	
Procedural (surgical) Support/Mentoring				X	X

E-24. One of the greatest drawbacks to using teleconsultation during care in the AO is that it takes time. Telemedicine is inherently inefficient as a care medium because the remote consultant must use words, and sometimes images, to understand what is happening locally and then must effectively communicate the recommendations. The following tips may help improve this inefficiency:

- To improved telemedicine efficiency healthcare professional should use a script when presenting a patient to the remote consultant. Ideally, this script is the same one used during simulation-based training and the remote expert has a copy of it.
- Whenever possible, the local caregiver should send a copy of the script, documentation flowsheets of patient vital signs and treatments, and other background information to the remote consultant before engaging in the telemedicine encounter. Valuable background information includes—
  - A list or picture of the local medical supplies and equipment including monitoring capabilities.
  - A list of available medications.
  - A list of fluids and blood products.
  - Diagnostic tests available (for example, labs or imaging).
  - Pictures of the patient and the care environment.

E-25. These items help provide context and prevent the consultant from giving recommendations that are not possible for the local caregiver to carry out. The best practices for telemedicine use in the AO are explained in table E-2 on page E-6.

Table E-2. Best practices for telemedicine support in the area of operation

Telemedicine is a skill that must be practiced by both local caregivers and remote experts for interactions to be efficient and effective. Ideally, the care this care team should train together using simulated patient care to optimize their communication and ensure their technology choices match their clinical needs.
Prior to travelling to the area of operation, care teams should develop a communication plan for telemedical support (Primary, Alternate, Contingency, Emergency). This includes when and how (technology) to use telemedicine.
Local caregivers must recognize when to "make the call." Conceptually, the "sicker" a patient is, the earlier and more frequently the local caregiver should engage with the remote expert. If available, continuous monitoring for an extended consultation should be employed.
Effective and efficient teleconsultation takes practice but can be improved by— • Using a script familiar to the both the local caregiver and remote consultant. • Sending background information using asynchronous technology ahead of synchronous telemedicine encounters. • Using closed loop communication that includes intentional pauses in communication for read-back and clarification. • Having the remote expert document the telemedicine encounter, and sending that documentation with a summary of recommendations to the local caregiver.
Solve technical challenges using a well-developed and practiced communication plan.

E-26. Health care professionals should send images of patients and care context to remote experts before starting a telemedicine encounter. This helps the remote expert to provide "consultation in context" and avoids recommendations that are discordant with local capabilities. Photographs that are less than 500MB are often of insufficient quality to convey information to a remote consultant. Images should be compliant with the Health Insurance Portability and Accountability Act whenever possible. Personally identifiable information, for example like full face images and unique tattoos unless they are essential for communicating injury or disease state, should not be included in the photo to the remote expert. Images of the environment that could cause a safety issue for the local care team by exposing their location, affiliation, or other information that could be used against them (for example, media implications of the image) should not be included.

Note. Digital photos may also contain "geotags" that can provide an exact location where it was taken. This feature can be disabled if there are security concerns.

E-27. If a patient is critically ill or injured and the health care professional needs help, they should call early and call often. Consultation is a sign of strength and confidence on behalf of the health care professionals who recognize their own limitations.

SECTION IV – COMMUNICATION PLANNING FOR TELEMEDICINE

E-28. The safety and quality of care is the responsibility of the local caregiver and, therefore, telemedical support in the AO requires preparation and a communication plan to be successful. If a local caregiver intends to have consultation available but is unable to reach a remote consultant through one communication method, alternate methods should already have been established and tested. Thus, PACE planning takes two forms, one about when to utilize telemedicine and one for how to use telemedicine. An example of this communication plan is shown in table E-3 on page E-7.

Table E-3. Notional communication plan for telemedicine

	Patient care plan	*Telemedicine technology*
Primary	Use local assets; evacuate the patient; pre-position resources (for example, expect to need a surgeon, have an operating room and a surgeon locally available).	**Power**: Electrical grid **Network**: Fiber or cable internet **Equipment**: Dedicated telemedicine equipment (example video teleconference, exam station, room camera, augmented reality device, peripheral devices)
Alternate	Use established telemedicine relationship to support care-in-place or during evacuation.	**Power**: Solar cell battery **Network**: 4G or LTE cellular network **Equipment**: Mobile phone or tablet with or without peripheral exam equipment
Contingency	Use ad hoc telemedicine relationships (for example, "phone-a-friend") to support care-in-place or during evacuation.	**Power**: Gasoline generator **Network**: Satellite **Equipment**: Laptop or desktop computer, digital camera, email
Emergency	Use un-approved, non-standard local solutions (for example, local economy, high-risk care by untrained individual) to achieve "best-possible" outcome.	**Power**: Batteries **Network**: Telephone, radio **Equipment**: Phone, radio

E-29. Like the need for planning, optimal teleconsultation requires practice for its efficient and effective execution. Telemedicine is a skill set for both local caregivers and remote experts. Before traveling to the AO, caregivers should engage their telemedicine team using the technologies in their PACE plan. Practicing caring for patients with the remote expert team during high-quality training, ideally using high fidelity manikin, simulation-based training, builds trust between the caregiver and the remote expert and builds strong habits like using a script to convey information.

E-30. Telemedicine is a skill set and a tool that requires training, practice, and a communication plan. A team that has used telemedicine in training is able to adapt to conditions on the ground and optimize care for their patient.

E-31. The telemedicine technology PACE plan supports the alternate and contingency patient care plans. The power, network, and equipment items should be considered independently of plans and mixed-and-matched according to need and functioning. Thus, the primary power plan could support the alternate network and contingency equipment. The technology plan should build from most reliable to least reliable.

SECTION V – SECURITY DURING TELECONSULTATION

E-32. Traditional teleconsultation is unclassified, and the local caregiver should maintain normal rules of operational security when utilizing unclassified networks. Consultants in standard medical systems typically do not have means of secure communications. Teleconsultation should not be delayed due to an unsecure connection unless operational situations dictate otherwise. Encryption may enhance security or protect patient information but is not a requirement at this time.

E-33. Maintaining patient privacy should be a priority, and many simple or available tools for communication meet patient privacy requirements. When sending patient information or images by open communication methods, patient identification should be limited to gender and age. Location can be generic addressing temperature (hot, warm, or cold), surroundings (urban or rural), or environments (desert or tropical). Location to the level of continent or region can be useful for the consultant or expert to better identify diseases specific to certain areas (hemorrhagic fevers, or malaria). Photographs should not include the face or identifiable scars or tattoos unless unavoidable due to location of injury.

SECTION VI – DOCUMENTATION

E-34. Documentation of care in an OE is ultimately the responsibility of local caregivers. All theater and local command documentation requirements should be completed locally. It is useful, however, for the remote expert to document their thoughts and consultation when possible. All efforts should be made by the remote expert to send recommendations to the local caregiver. These recommendations should be copied into or from the operational virtual health report. If the patient is a DOD beneficiary and the local caregiver can give at least two of the patient identifiers, the consultant should document the encounter in the electronic medical record by copying the information from the operational virtual health report to the medical record note. At least two of the following patient identifiers are needed to document care in the electronic medical record:

- Patient name
- Social Security Number
- Department of Defense identification number
- Date of birth
- Pseudo identification number

E-35. Many teleconsultation encounters for patients will likely be utilizing the remote expert platform especially for those—

- Whom are not DoD beneficiaries (for example, local nationals or other government agencies) but for whom U.S. military caregivers are responsible.
- Whom the local or austere caregiver cannot give the patient's name or identifying information.

Appendix F

Waste Management

Proper management of waste materials generated in the field is critical in protecting the health of Soldiers and the environment. Handling these materials improperly can create dangerous working conditions, damage vital natural resources, impede mission accomplishment, and cause irreparable harm to training areas and increase FHP demands to units. Poor waste management practices can also lead to criminal and civil penalties, substantial cleanup costs, and detract from the military's relationships with local communities and host nation. As a result, the DOD demands integration of environmental considerations into all military planning and decision-making.

SECTION I – WASTE MANAGEMENT COMPLIANCE

F-1. Within the United States and its territories, the military must comply with U.S. Environmental Protection Agency regulations, as well as state and local requirements. The obligation to adhere to these regulations is not altered by funding considerations. While outside the United States, units must follow the requirements of the applicable host nation Final Governing Standards. If no governing standards exist, units must comply with DODM 4715.05 and the Overseas Environmental Baseline Guidance Document 4715.05, Vol. 5. For more information on waste management and disposal procedures of waste materials, refer to 29 CFR 1910.120, ATP 4-25.12, and TM 3-34.56.

F-2. Army OPORDs or OPLANs should also address waste management procedures in Annex F (Sustainment). Joint orders and plans should include waste management requirements in Annex D (Logistics), Annex L (Environmental Considerations), or Annex Q (Medical Services).

SECTION II – CLASSIFICATION OF WASTE MATERIALS

F-3. The classification process of waste materials is used to determine the method in which the waste must be disposed of to prevent harm to people and the environment. Classifying waste identifies items or component parts of some items that can be reclaimed and reused to conserve resources. Segregation and storage are essential to preventing illness and chemical or biological exposures.

SOLID WASTE

F-4. Solid waste includes garbage, rubbish (non-hazardous solid waste), HW, regulated medical waste, human waste, and wastewater. Each type of solid waste has specific management and disposal procedures that should be followed.

MANAGEMENT OF SOLID WASTE

F-5. At the unit-level collection and storage of SW is the responsibility of the individual and is monitored by the field sanitation team by the methods of separation, storage, and collection. Before departing a field site, commanders should ensure no SW (including wire, sandbags, brass, and paper) remains in the training area.

Reduce, Reuse, or Recycle

F-6. Commanders, supervisors, and unit field sanitation team members should continually seek ways to reuse or reduce the generation of waste materials. Source reduction and reuse are the preferred means of pollution

prevention and are often easily implemented (for example, using empty boxes as storage bins). Recycling is another excellent way to reduce the amount of SW requiring disposal on installations and in the field.

F-7. Composting is a form of organic waste treatment that will reduce the volume of SW requiring disposal. The suitability of composting as a waste disposal method depends upon the amount of organic waste generated, susceptibility to vectors, available land, manpower, and duration of occupancy. The methods of composting range in complexity in terms of labor and equipment requirements. Additional information on composting is available from Army Public Health Center Ground Water and Solid Waste Program website.

F-8. Source separation should be used to remove recyclable, reusable, and marketable materials to reduce the quantity of waste requiring disposal. The best means of achieving appropriate segregation is by providing separate, labeled containers for different types of wastes. A less desirable option is to take waste and recyclables to a consolidated segregation yard where assigned personnel manually separate the waste.

Collection

F-9. All SW should be placed in plastic bags, tied, and consolidated as quickly as possible at designated waste collection points. These collection points should employ closeable containers, such as dumpsters or garbage cans with lids. Waste collection points should be located at least 30 meters (100 feet) from dining facilities. Receptacles, dumpsters, and compactors used by dining establishments will be cleaned according to the guidelines in TB MED 530.

F-10. Waste should be removed at least twice per week from collection points and daily from food service facilities. A contractor will often perform collection services, particularly if wastes are disposed in a municipal facility. The collection method will depend on the disposal method, which is a factor of unit size.

F-11. Solid waste should be collected in a vehicle dedicated for that purpose. If a vehicle is converted for use in trash collection, this vehicle should have a low gate for easy access and a suitable cover, such as chicken wire or canvas, to keep trash from blowing off. Vehicles used to transport trash must be cleaned prior to use for other missions. For example, the truck must be cleaned and disinfected with a 200 milligrams per liter chorine solution prior to transporting foodstuffs.

DISPOSAL OF SOLID WASTE

F-12. The options for disposal of waste materials are dependent on the category of the waste being disposed of. The military item disposal instructions available on the Army Public Health Center website provides disposal guidance and information for Army and other DOD activities.

F-13. The Military Item Disposal Instruction system is a database designed to provide disposal options for most military and medical items. The system provides methods of destruction for the disposal of hazardous and non-hazardous items used within the DOD. The Military Item Disposal Instruction system aids the PVNTMED officer and the logistician in proper disposal of outdated medical and nonmedical items. The database also serves the Defense Logistics Agency (DLA) Disposition Services in their disposal mission. Additional information on the Military Item Disposal Instruction website includes information papers and summaries of federal environmental regulations.

F-14. The primary options for disposal of nonhazardous SW in the field are burning, burial, or backhauling. Within the United States, all SW generated during field exercises must be backhauled to garrison or picked up by contractors. For more information on open-air burn pits, refer to DODI 4715.19. For more information on landfills in support of military operations, refer to Unified Facilities Criteria 3-240-11.

F-15. During overseas training exercises, host-nation requirements, which normally require the same policies of backhauling or contract disposal, must be followed. If incineration, open burning, or landfilling is used during contingency operations, additional security measures must be taken to deter scavenging by local populations.

HAZARDOUS AND SPECIAL WASTE

F-16. Hazardous waste is a regulatory term for certain discarded materials that are potentially harmful to human health or the environment. Examples of common HW found in field settings include used solvents,

compressed gas cylinders, and contaminated soil from fuel spills. Subtitle C of the Resource Conservation and Recovery Act (published in Title 40 CFR part 260-280) governs HW management in the continental United States and serves as the foundation for standards outside the continental United States.

F-17. Special wastes are discarded materials that do not meet the regulatory criteria for classification as a HW but still pose hazards to human health or the environment and require special management. Examples include used oil or antifreeze collected for recycling, alkaline batteries, and asbestos-containing materials. Units must often manage special wastes separately from regular trash.

MANAGEMENT OF HAZARDOUS AND SPECIAL WASTE

F-18. In addition to the Military Item Disposal Instruction system, the Hazardous Materials Information Resource System is a DLA database containing material safety data sheets for military supply items. The DLA maintains this system and allows users to search for product information by several means, such as by nomenclature or national stock number. The database is accessible online at DLA Information Operations Logistics Applications website. The safety data sheet provides information on safe storage and compatibility requirements that can be applied to HW in extreme environments. Hazardous wastes should be segregated based on hazard and stored in a well labeled, closed container according to the Final Governing Standards or DODM 4715.05-G.

DISPOSAL OF HAZARDOUS AND SPECIAL WASTE

F-19. The Military Item Disposal Instruction system provides detailed disposal guidance for thousands of military items, including medical supplies. Like the Hazardous Materials Information Resource System, this system provides multiple search options. The Military Item Disposal Instruction system, however, classifies each listed item as HW or non-HW and provides specific disposal information.

F-20. Logistics planners must determine the means of HW disposal prior to deployment by contacting the supporting DLA Disposition Services. Decisions not to use the DLA Disposition Services must receive concurrence from the component chain of command to ensure contracts and disposal criteria are at least as protective as criteria used by the DLA. If local contractors cannot meet the DLA criteria in DODM 4160.21 Volumes 1 through 4, wastes must be backhauled to a DLA Disposition Services facility. Units must never incinerate or bury any HW unless explicitly approved by both U.S. and host nation authorities. Other than potentially creditable HW pharmaceuticals, no HW shall be imported into the United States without prior coordination with the DLA, Army G-9, and the Environmental Protection Agency.

MEDICAL WASTE

F-21. Regulated medical waste is a term for waste materials that are potentially capable of causing disease and may pose a risk to either individuals or community health if not handled or treated properly. Regulated medical waste materials are generated by medical, veterinary, and dental treatment facilities in the diagnosis, treatment, research, or immunization of human beings or animals.

MANAGEMENT OF MEDICAL WASTE

F-22. Regulated medical waste is waste generated in the diagnosis, treatment, research, or immunization of human beings or animals that can cause disease or pose a risk to individuals or a community if not handled properly. These wastes are also called infectious waste, biohazardous waste, clinical waste, biomedical waste, or simply medical waste. Terms will vary based upon locality and host nations, states, or local laws may have additional wastes classified as regulated medical waste not identified here. Regulated medical wastes are grouped by waste source. When outside the continental United States, the definitions specified in the host nation Final Governing Standards are applicable. If host nation Final Governing Standards do not exist, follow the definitions of DODM 4715.05.

F-23. There may be diseases unique to a specific theater. The theater surgeon should designate whether nonbloody wastes from these diseases requires segregation and management as regulated medical waste. The decision is based on the nature of the disease, prevalence, the method of transmission, and other risks.

F-24. Whole corpses are not considered regulated medical waste. Quartermaster units will manage human remains according to JP 4-0. Animal body parts, carcasses, and bedding (not contaminated by medical research) are not considered regulated medical waste and may be incinerated or landfilled.

F-25. Personnel handling blood-soaked clothing or personal equipment (such as body armor) should adhere to the handling guidance provided in TM 3-34.56. Blood-soaked items can be rendered non-infectious by washing the items with soap and hot water. The cleaning guidance provided on clothing and equipment labels should be followed, or quartermaster personnel should be consulted for detailed laundering instructions. Equipment that remains stained after laundering should be returned through supply channels for either turn-in or exchange. Logistics personnel will evaluate item serviceability and make the final decision regarding disposition of government-issued clothing and equipment.

STORAGE OF REGULATED MEDICAL WASTE

F-26. Regulated medical waste should be segregated and secured at the point of generation and not mixed with HW. Regulated medical waste is collected in red bags, or another specified color for the TO, with a minimum thickness of 3 mils or that meets the 165-gram impact strength American Society for Testing and Materials D1709-01 and 480-gram tear strength American Society for Testing and Materials D1922-15 standards. Efforts must be made to ensure the waste being placed into red bags does not contain any ammunition, unexploded ordnance, or other explosive hazards. All bags or receptacles used to segregate, transport, or store regulated medical waste must be clearly marked with the universal biohazard symbol and the word BIOHAZARD in English and any other language prevalent in the operational area.

F-27. Sharps are collected in puncture-resistant, leak-resistant, and uniquely colored or marked containers. If proper containers are not available through the supply system, any rigid plastic or metal container (such as coffee cans or plastic drink bottles) can be used for collection. These expedient containers should be placed into red bags or proper sharps containers as soon as possible for disposal. Medical waste is never compacted before disposal. When being sealed, bags containing regulated medical waste must not be shaken or squeezed to reduce volume.

F-28. Regulated medical waste storage areas should be located near medical units or the BMSO area where access can be controlled. Regulated medical waste must be stored in access-controlled areas that are ventilated and offer protection from the sun, rain, and pests. Regulated medical waste must never be mixed or stored with other SW or HW. The type, quantity, and disposition of stored regulated medical waste should be recorded in a logbook or electronic journal for proper tracking purposes. Besides the space needed for storing regulated medical waste, additional space should be allocated for storing supplies, including spill and cleanup kits, medical storage bags, sharps containers, storage drums, personal protective equipment, and shipping labels.

DISPOSAL OF REGULATED MEDICAL WASTE

F-29. Regulated medical waste is considered a hazardous material for transportation purposes and must comply with transportation and safety requirements. Medical waste may be transported in military, government, or contractor vehicles. It must be secured to prevent excessive movement and cannot be transported in the same vehicle with Class I. Vehicles used to transport regulated medical waste must be cleaned and disinfected before being used for any other purpose.

F-30. Contractors with the requisite training, skills, and equipment should be used for regulated medical waste disposal whenever possible. Scopes of work for contracts must be precise in outlining the proper procedures for collection, transportation, disposal, and documentation of regulated medical waste. When contractor services are unavailable, the hierarchy for regulated medical waste disposal is high temperature, two stage incineration, sterilization, retrograding, or burial according to guidance provided for the TO.

F-31. The preferred method for disposing of regulated medical waste is by incineration in an approved regulated medical waste incinerator. Open burning of regulated medical waste is prohibited during contingency operations, except when no alternative disposal method is feasible. Burning regulated medical waste may be permitted using approved open burning methods if approved through the commander of the respective geographic combatant command, who has the authority and responsibility, as delegated by the Secretary of Defense, to determine situations or circumstances under which no alternative disposal method

is feasible. The open burning of regulated medical waste must conform to policies and procedures established for the TO and be outlined in the SW management plan for the contingency operation. At locations where regulated medical waste is being disposed of through open burning, the respective combatant command will issue specific engineering and medical guidance that maximizes the protection of human health and safety.

F-32. If use of a regulated medical waste incinerator or sterilization is not possible, regulated medical waste may have to be transported to a sustainment area where the appropriate facilities are available. These movements must be coordinated with higher headquarters to ensure compliance with any governing international agreements.

F-33. The last resort is burying untreated regulated medical waste in a sanitary landfill located in an area with a deep groundwater table. Regulated medical waste must be buried below 2.4 meters (8 feet) to prevent scavenging. A layer of lime may be placed over the waste prior to burial to accelerate decomposition and provide a measure of chemical disinfection. Medical waste burial sites must be marked, and grid locations must be reported through the chain of command to facilitate the possible requirement that it will have to be recovered in the future.

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Appendix G

Medical Training

The mission of the medical company is not just medical treatment and evacuation. It is responsible for the medical training of both its own medical personnel and all nonmedical personnel assigned or attached to the unit or units they are supporting. The medical company may be responsible for predeployment, deployment, and postdeployment medical training for CLSs, unit field sanitation teams, and CBRN teams.

The following sections are in consonance with ABCANZ standard 2109.

SECTION I – MEDICAL TRAINING CONSIDERATIONS

G-1. Company leaders and combat medics should make every "garrison medical support task" a training event. For example, if an ambulance crew is designated to provide medical support at a range or drop zone, the crew should conduct "mission analysis" and pack according to probable injuries instead of just relying on the standard MES, ground ambulance, and aid bags. Those personnel executing the "garrison medical support task" should have the unit tactical SOP, battle drills, or doctrine and expect an oral summary of what the references contained.

G-2. Successful medical support is not only training the medical personnel, but also ensuring the nonmedical personnel are well trained at managing medical support requirements, MASCALs, and conducting CASEVAC.

G-3. Company leaders should ensure their Soldiers are involved in maneuver unit training events. For example, the medical company leaders coordinate with the maneuver medical platoons and task organize DS ambulances to deploy with Role 1 and execute MEDEVAC from Role 1 to the Role 2 or installation MTF.

G-4. Company leaders should capitalize on every opportunity to participate in company-level training. For example, manual carries and litter team training can be concurrent training events at a company small arms range or at an Army physical readiness training event. This training opportunity can further be developed by establishing a company CCP and employing CLS personnel through concurrent training opportunities.

G-5. Several training events planned, resourced, and rehearsed prior to field training exercises or deployments. Typically, there is some down time for the medical platoons and the field surgeon, PA, and NCOs. This down time can be better used if they are prepared to execute training and the training can be executed with little notice. Examples of training that can be preplanned include initiating intravenous access, assessing a patient, filling out DD Form 1380, conducting a patient handover to another health care provider, presenting a patient to the PA over an FM radio using telementoring procedures, and treating a COSR patient.

G-6. The BSMC commander and BSMC first sergeant are usually the senior Medical Service Corps and senior medical NCO in the BCT. As the subject matter experts on the AHS, they should provide officer and NCO professional development for all operational medicine personnel in the BCT. This includes teaching, coaching, mentoring, and extending training opportunities to the maneuver battalion medical platoons.

G-7. Training can be conducted through monthly brigade medical synchronization meetings or quarterly combined training opportunities. These senior leaders should seek support from the brigade leader, through the brigade surgeon, and the battalion leaders for a consolidated medical training program. This program should be given the same priority and support as other brigade training events to achieve a "trained" rating on the mission essential task list and collective task assessment. This could be accomplished by including

training on expert field medical badge tasks, medic tables 1-8 testing, or other medical topics the field surgeons want to train the combat medics on. A consolidated training program would facilitate AHS standardization in the brigade.

SECTION II – COMBAT LIFESAVER TRAINING

G-8. Immediate, far forward medical care is essential on a widely dispersed and fluid battlefield to prevent Soldiers from dying of wounds. Medical personnel may not be able to reach and apply lifesaving measures to all wounded Soldiers in a timely manner. The CLS is a nonmedical Soldier trained to provide lifesaving measures beyond the level of self-aid/buddy aid. Each squad, crew, or equivalent-sized deployable unit will have at least one member certified as a CLS. Functioning as a CLS is a secondary mission undertaken when the tactical situation permits.

G-9. A properly trained CLS can stabilize many types of casualties and can slow the deterioration of a wounded Soldier's condition until medical personnel arrive. The CLS is a bridge between the Tier 1 TCCC skills given to all Soldiers at basic training and the medical training given to the combat medic or provider. For more information on the tiered TCCC skills, refer to DODI 1322.24.

ROLE OF THE COMBAT LIFESAVER

G-10. The role of a CLS is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway or respiratory problems. Each CLS receives training on the skills required to prevent complications and treat other associated, but not immediately life-threatening, injuries. The CLS is trained to provide immediate care that can save a casualty's life, such as stopping severe bleeding and performing needle decompression of the chest for a casualty with tension pneumothorax. The CLS may assist the combat medic in providing care, preparing patients for evacuation, or assisting medical personnel treating patients in a prolonged care situation when the CLS has no combat duties to perform.

G-11. The major advantage of the CLSs is that they will probably be nearby if a member of their squad or crew is injured. Large-scale combat operations are characterized by a widely dispersed, rapidly moving battlefield. This presents constraints on the rapid acquisition of casualties and medical treatment. These constraints in many cases limit the ability of medical platoon personnel to provide immediate, far forward medical treatment. It may take a combat medic several minutes or longer to reach the casualty, especially when the combat medic is treating seriously wounded members of the unit.

TRAINING THE COMBAT LIFESAVER

G-12. Corps, divisions, and brigades, and battalions will implement CLS training within their commands and designate a staff surgeon responsible for supervising their CLS programs. The training support package is the primary method of training for CLS.

G-13. Student and instructor materials for units and organizations are included in the training support package. Training and testing will be conducted according to the tasks, conditions, and standards established by TRADOC.

G-14. Proof of CLS course completion will be placed in the Soldier's military personnel folder according to AR 600-8-104. Soldiers who successfully complete CLS in initial military training will be issued certificates of training according to the regulation and awarded course credit in the Army Training Requirements and Resources System.

G-15. Combat lifesaver training locations that already self-manage their training documentation in Army Training Requirements and Resources System in their local troop schools or other local Army Training Requirements and Resources System school code will continue to document their training completion roster utilizing local Army Training Requirements and Resources System clerks as before. For those training locations that do not have an established Army Training Requirements and Resources System CLS under a local Army Training Requirements and Resources System school code, instructors will submit class completion rosters to MEDCoE Instructional Technology Support Services Help Desk.

G-16. The Army CLS course does not limit the number of retests that can be administered to a student on a failed examination. However, the Soldier must be allowed at least one retest on each examination. The course manager may establish a maximum number of retests or procedures for approving more than one retest per examination.

G-17. Units without qualifying medical platoon personnel will request training instructor support from the next higher command surgeon or local installation MTF. In accordance with the individual critical task list Task: 081-68W-2003 the course manager must ensure instructors possess—

- MOS 68W, Combat Medic Specialist.
- Basic life support certification.
- Initial instructor evaluation that was completed (by the Course Manager or Medical Director) no later than 30 days prior to the start of instruction.
- Additional duty orders identifying the instructor as the primary or alternate instructor.
- Training on equipment, course material, and course requirements.

EQUIPMENT AND SUPPLIES

G-18. Unit personnel are not authorized to increase or delete items contained in the CLS aid bag. All Class VIII supplies and materiel required for CLS training will be requisitioned through normal supply channels. The primary instructor should arrange for equipment and supplies as early as possible. The local Training Aids Devices Simulations and Simulators should be used from the Training and Audiovisual Support Centers that may include the Trauma Effects Mannequins. Training items will not be provided by U.S. Army Medical Center of Excellence.

ENROLLMENT

G-19. Enrollment requests should be sent a minimum of four weeks prior to beginning of the course. Enrollment instructions are in the training support package.

FACILITIES

G-20. Facilities must be reserved well in advance. The facilities chosen should allow clear observation of demonstrations and provide room for student practice. Handwashing devices are required.

COURSE MATERIAL

G-21. Combat Lifesaver Course instructors are provided lesson plans, student self-study materials, written (multiple-choice) examinations, solutions to written examinations, and performance checklists. Training, testing, and grading are conducted under the supervision of qualified instructors at the Soldiers' home stations. Combat lifesaver presentations are in the training support package. No other course material is authorized for Army use.

G-22. Testing includes both proctored multiple-choice and performance examinations. Only one examination response is returned for grading upon completion of the course. This is a GO or NO GO course. Program managers are not authorized to augment correspondence course material, change the length of the course, or increase or delete items contained in the CLS aid bag.

RECERTIFICATION AND SUSTAINMENT TRAINING

G-23. The CLS tasks are perishable skills. Combat lifesavers must recertify every 12 months on the performance-tested tasks in the CLS course with the recertification occurring at unit level according to AR 350-1.

G-24. The printed material in the correspondence course can be locally reproduced and used for sustainment training. To the extent needed to sustain skill proficiency, CLS will be exercised during home station training activities (to include field-training exercises) and during deployment for training (to include rotations through combat training centers).

G-25. The training support package includes the standards for recertification that unit instructors will need to accomplish the recertification. It is the responsibility of the personnel staff, not the medical platoon leader, to ensure personnel records are updated following completion of CLS training.

COMBAT LIFESAVER AID BAG

G-26. The CLS carries a small aid bag containing supplies for controlling bleeding, relieving tension pneumothorax, and performing other procedures. For a current listing of the supplies found in the CLS aid bag, refer to the Medical Materiel Information Portal website which is managed by the U.S. Army Medical Logistics Command. The CLS aid bags will be issued to the CLS only upon deployment (training and actual).

G-27. It is the responsibility of each CLS to ensure—

- Their aid bag is stocked according to the prescribed packing list.
- All stocked items are serviceable.
- Items have not exceeded their expiration dates.

CLASS VIII RESUPPLY OF COMBAT LIFESAVER AID BAG

G-28. Medical companies maintain stocks of medical materiel to resupply CLS aid bags during operations. In a deployed environment, resupply is accomplished in the same manner as during home station operations:

- Units with assigned medical platoon personnel will request Class VIII resupply for CLS aid bags through the medical company's medical supply section or office.
- Brigade units without assigned medical platoon personnel request Class VIII support through the supporting medical activity.
- Emergency resupply is provided to all units by the nearest medical unit capable of doing so.

SECTION III – UNIT FIELD SANITATION TEAM TRAINING

G-29. Countering health threats that Soldiers are confronted with is as simple as implementing and enforcing unit-level field hygiene and sanitation practices and monitoring individual personnel protective measures. These are the reasons why the unit field sanitation team was created and why the team continues to be the most effective tool commanders have at their disposal to ensure their Soldiers remain healthy and fit to accomplish the mission. For more information on unit field sanitation teams, refer to ATP 4-25.12.

IMPORTANCE OF THE UNIT FIELD SANITATION TEAMS

G-30. Historically, in every conflict up through World War II in which the United States was involved, approximately 20 percent of hospital admissions were the result of combat injuries. The other 80 percent were the result of DNBI. In some areas, the incidence of arthropod borne disease was high enough that entire divisions became combat ineffective.

G-31. The problem was so severe that the U.S. War Department ordered the establishment of antimalarial details within every company, battery, or similar-sized unit. Once established and trained, antimalarial details were very successful in reducing the incidence of arthropod borne disease. As a result of their success, the antimalarial details were redesignated as unit field sanitation teams, and their duties and responsibilities were significantly increased. A DNBI casualty is defined as a Soldier who is lost to an organization by reason of disease or injury and who is not a battle casualty.

G-32. Contemporary operating forces are frequently required to maneuver in some of the harshest environments on earth. Many of these areas present significant health threats that can quickly result in the spread of disease and increased incidences of nonbattle related injuries if not properly addressed. The rates of DNBI from 1991 to 2003 are depicted in table G-1 on page G-5.

Table G-1. Disease and nonbattle injury rates in contemporary operations

Operation	*Percentage of casualties attributed to disease and nonbattle injury*
Operation Desert Shield/Desert Storm, 1991	6.5 percent
Operation Joint Endeavor, 1995	7.1 percent
Operation Joint Guardian, 1999	8.1 percent
Operation Enduring Freedom, 2001	5 percent

ESTABLISHING UNIT FIELD SANITATION TEAMS

G-33. The drop in DNBI rates reflected in G-1 is due largely to the efforts of well-trained, appropriately equipped, and command supported unit field sanitation team members. Commanders of all company-sized units should establish, train, equip, and deploy unit field sanitation teams when required. Establishing and employing unit field sanitation teams is covered in AR 40-5, AR 350-1, and DA PAM 40-11.

G-34. Soldiers selected for unit field sanitation teams must have the confidence and support of the commander and be given sufficient time to perform their duties adequately. It is critical for commanders to—

- Provide command emphasis regarding the importance of field hygiene and sanitation and personal protective measures.
- Set the example of the importance of the program for their Soldiers.
- Enforce the standards set for the use of personal protective measures.
- Select only the very best Soldiers to staff the field sanitation teams.
- Ensure their teams are well trained and equipped to perform their duties.

MISSION

G-35. The mission of the unit field sanitation team is to assist commanders in maintaining the health and the well-being of the Soldiers assigned to the unit. They accomplish this by—

- Performing arthropod and rodent management control measures within the unit area.
- Supervising the disinfection of unit bulk water supplies and monitoring residual chlorine levels.
- Teaching Soldiers—
  - Individual water purification techniques.
  - The dangers of consuming food and drinks from unapproved sources.
- Inspecting unit-level food service personnel, feeding facilities, and food service equipment.
- Supervising the placement, construction, and maintenance of—
  - Field-level garbage disposal facilities and soakage pits.
  - Field latrines and urinals and then conducting regular sanitation inspections.
  - Handwashing stations at latrines and feeding areas and the replenishment of supplies such as water, soap, paper towels, or alcohol-based hand sanitizer.

Note. Unit details, not the field sanitation team members, are responsible for constructing and maintaining field waste disposal facilities.

- Training, guiding, and inspecting personnel hygiene practices to establish and maintain high levels of personal hygiene.
- Providing information and assistance relating to individual personal protective measures to include use of the DOD Insect Repellent System.
- Assisting in the selection of unit field sites and in reporting the presence and location of suspected toxic industrial materials as necessary.

- Identifying noise hazards in the unit area as well as a list of potential hazards within the unit area for the unit commander.
- Reporting findings of inspections to the unit commander.

ORGANIZATION

G-36. The unit field sanitation teams consist of one NCO and one enlisted Soldier. In units with organic medical platoon personnel, the NCO should be a medical NCO. Soldiers appointed to field sanitation teams should have at least six months of service remaining with the unit after completion of certification training. Unit field sanitation teams are established within company-sized units while deployed or when operating in the field for extended periods of time.

DEPENDENCIES

G-37. Unit field sanitation teams depend on support from PVNTMED personnel at brigade and EAB. These personnel provide—

- Field sanitation team certification training.
- Field screening and presumptive analysis of water supplies.
- Basic pest management and surveillance.
- Limited application of pesticides.
- Limited medical surveillance.

FIELD SANITATION TEAM TRAINING

G-38. Unit Field Sanitation Team course standards and training support packages are established and maintained by the Director, Distributed Learning Division, U.S. Army Medical Center of Excellence. Field sanitation team training should be conducted under field conditions. The certification course consists of 40 hours of—

- Classroom instruction.
- Demonstrations on the proper use and maintenance of field sanitation team equipment (field sanitation kit, national stock number 4540-01-578-4352).
- Practical exercises designed to test the Soldiers' competence.

G-39. At the end of the training program, Soldiers are given an examination that consists of 50 questions. After the successful completion of the training program and the examination, Soldiers are awarded field sanitation team certification. Field sanitation team certification training must be conducted when—

- Commanders appoint Soldiers to perform as members of unit field sanitation teams.
- Members of the unit field sanitation teams require sustainment training.
- Units are scheduled to operate in the field for extended periods of time or when deploying.

G-40. Establishing and training additional field sanitation teams can be beneficial in situations where commanders are responsible for having a presence in multiple locations. This is especially true in situations where the terrain, distance between locations, and tactical situation make it difficult for two teams to adequately support the Soldiers at those locations.

SECTION IV – CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR MEDICAL TRAINING

G-41. All deploying personnel should be trained in CBRN related self-aid/buddy aid, and CLS skills to include immediate decontamination, administration of CBRN medical countermeasures and barrier creams, and the wear, care, and inspection of individual protective equipment and personal protective equipment.

G-42. The IPE is the personal clothing and equipment provided to all military personnel to protect them from CBRN hazards. Personal protective equipment that meets civilian certifications as required by the U.S. Department of Labor Occupational Safety and Health Administration is considered PPE.

PREDEPLOYMENT TRAINING

G-43. Medical platoon personnel will provide a health threat briefing to deploying personnel identifying health threats and countermeasures to include applicable immunizations and other preexposure drugs. A best practice is for all medical platoon personnel and selected nonmedical augmentees is to be trained in recognizing signs of exposure to CBRN, CBRN casualty triage, TCCC in a CBRN environment, and how to thoroughly decontaminate CBRN-contaminated casualties. Topics for training include—

- Roles of medical platoon personnel.
- Roles of nonmedical augmentees.
- Patient decontamination principles.
- Zones of contamination.
- Safety, heat injury prevention, and water consumption.
- Employment of the BAS Chemical Biological Protection System.
- Establishment and operation of a battalion-level PDS.
- Core components of the PDS and patient flow.
- Patient decontamination site operational considerations.
- Procedures for closing down a PDS.

G-44. If time permits, nonmedical augmentees should receive additional training on topics such as: basic medical signs and symptoms of chemical agents; safe patient litter transfer techniques; roles and responsibilities; the use of detection devices; the importance of work-rest cycles; and prevention of heat injuries.

G-45. The U.S. Army Medical Research Institute of Chemical Defense, Chemical Casualty Care Division, provides medically accredited and Army Training Requirements and Resource System approved courses. Specialized training is focused on fundamental HSS tactics, techniques, and procedures associated with treatment and medical management of patients in a chemical or biological warfare agent environment. Contact the U.S. Army Medical Research Institute of Chemical Defense, Chemical Casualty Care division at phone: 410-436-2230, DSN: 584-2230 or at https://usamricd.amedd.army.mil/training. The following Army Training Requirements and Resource System approved courses are available:

- Medical Management of Chemical and Biological Casualties Course (MCBC), #6H-F26.
- Field Management of Chemical and Biological Casualties Course (FCBC), #6H-F37/300-F31.

PREATTACK POSTURE

G-46. Given the likely disruption of transportation, communications, and operations during and following a CBRN attack, preparation is the key to continuing operations in a CBRN environment and effectively providing HSS. Preparing a simple, but complete, tactical SOP and HSS plan that integrates CBRN is the first step. Critical training for medical personnel before a CBRN attack includes how to—

- React to a CBRN attack individually and as a unit.
- Operate the Role 1 or Role 2 in a CBRN environment.
- Effectively care for CBRN patients.

SECTION V – TRAINING OPPORTUNITIES

G-47. Company leaders should take every opportunity available to training with EAB medical units that are identified in chapter 8. This can be accomplished by requesting those EAB enablers to conduct consolidated training opportunities on home station or at the combat training centers. For example, if the Role 2 is executing a company field training exercise, the company leaders should request the eight ambulances from the MCGA. It is critical for those training opportunities be identified well in advance following the U.S. Army Training Strategy and should include units from all components.

G-48. The medical company may be required to provide additional training to medical and nonmedical personnel. Table G-2 on page G-8 identifies specific medical training for medical personnel that should be incorporated into the medical company's training strategy. Table G-3 on page G-9 identifies additional

medical training for nonmedical personnel. The additional medical training identified in table G-2 and table G-3 are designed to follow the U.S. Army Training Strategy, and these tasks should be incorporated at every opportunity as a inject medical into a training event. The training identified on table G-2 and table G-3 are not all encompassing. Individual unit mission-essential task list, area of concentration or military occupational specialty Soldier Training Publication, and licensing education requirements (for example, National Register Emergency Medical Technician—Basic) should be referenced to establish a complete training program.

Table G-2. Additional training for medical personnel

Continuing medical education and clinical training of subordinate medical platoon personnel.
Providing training to battalion medical platoon personnel in TCCC principles and procedures. To include the tenants of holistic health and fitness in accordance with FM 7-22.
Providing training for medic tables 1-7 and support for medic table 8 biannual recertification of the military occupational specialty 68W Combat Medic Specialist personnel in accordance with TC 8-800.
Training and rehearsals on medical battle drills that include— • Establishing the Role 2 MTF. • Conducting extended medical support operations. • Relocating the Role 2 MTF. • Establishing and rehearsing a CCP include triage. • Evacuating patients. • Establishing a PDS.
Training to recognized, treat, and document suspected or known CBRN contaminated patients.
Training to operate (triage, decontamination, treatment, and transport) in MOPP level 4.
Training to establish and manage a temporary morgue in a noncontaminated area and CBRN contaminated area.
Planning, executing, and maintaining the training of medical platoon personnel for battalion PDS operations. This includes— • Roles of medical platoon personnel. • Roles of nonmedical augmentees. • Patient decontamination principles. • Zones of contamination. • Safety, heat injury prevention, and water consumption. • Employment of the BAS chemical biological protective shelter system. • Establishment and operation of a battalion-level patient contamination site. • Core components of the patient contamination site and patient flow. • Patient decontamination site operational considerations. • Procedures for closing a patient contamination site.
Training on medical records management per AR 40-400 and AR 40-66.
LEGEND AR army regulation BAS battalion aid station CBRN chemical, biological, radiological, and nuclear CCP casualty collection point FM field manual MOPP mission orientated protective posture MTF medical treatment facility PDS patient decontamination site TC training circular TCCC tactical combat casualty care

Table G-3. Additional training for nonmedical personnel

Planning, executing, and maintaining the training of nonmedical augmentees for battalion PDS operations. This includes— • Roles of medical platoon personnel. • Roles of nonmedical augmentees. • Patient decontamination principles. • Zones of contamination. • Safety, heat injury prevention, and water consumption. • Employment of the BAS chemical biological protective shelter system. • Establishment and operation of a battalion-level PDS. • Core components of the PDS and patient flow. • Patient contamination site operational considerations. • Procedures for closing a PDS.
Planning, executing, and maintaining the training of battalion nonmedical augmentees as aid and litter teams. This includes the following: • Litter carries. • Manual carries. • Load and unload unit vehicles for CASEVAC. • Load and unload unit MEDEVAC vehicles. • Transmit a 9-line MEDEVAC request. • Vehicle marking and notification techniques for CASEVAC per unit tactical SOP. • Traversing rough terrain with a litter. • Organization and layout of the CCP layout. • Triage categories.
Supervising all unit-level TCCC training (also part of warrior tasks).
Planning and oversight of operational public health training for unit personnel (to include personal hygiene).
Planning and oversight of H2F training for the battalion in accordance with FM 7-22.
Providing Soldier and leader training on the prevention of negative COSR and other stress-related reactions.
LEGEND BAS battalion aid station CASEVAC casualty evacuation CCP casualty collection point COSR combat and operational stress reaction FM field manual H2F holistic health and fitness MEDEVAC medical evacuation PDS patient decontamination site SOP standard operation procedure

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Glossary

This glossary lists acronyms and terms with Army and join definitions. Where Army and joint definitions differ, (Army) precedes the definition. The proponent publication for other terms is listed in parentheses after the definition.

SECTION I – ACRONYMS AND ABBREVIATIONS

AATF	air assault task force
ABCT	armored brigade combat team
ADP	Army doctrine publication
AE	aeromedical evacuation
AFI	Air Force instruction
AFMAN	Air Force manual
AFPAM	Air Force pamphlet
AFTTP	Air Force tactics, techniques, and procedures
AFTTP(I)	Air Force tactics, techniques, and procedures (instruction)
AHS	Army Health System
AJP	allied joint publication
ALP	ambulance loading point
AML	area medical laboratory
AO	area of operations
AOR	area of responsibility
ARP	ambulance relay point
ATP	Army techniques publication
ATTP	Army tactics, techniques and procedures
AXP	ambulance exchange point
BAS	battalion aid station
BCT	brigade combat team
BMSO	brigade medical supply office
BSA	brigade support area
BSB	brigade support battalion
BSMC	brigade support medical company
BSS	brigade surgeon section
BUMEDINST	Bureau of Medicine and Surgery instruction
C2	command and control
CAB	combined arms battalion
CASEVAC	casualty evacuation
CBRN	chemical, biological, radiological, and nuclear

CCP	casualty collection point
CEMR	civilian employee medical record
CFR	Code of Federal Regulations
CG	commanding general
CLS	combat lifesaver
COA	course of action
COMDTINST	commandant instruction
COSC	combat and operational stress control
COSR	combat and operational stress reaction
CP	command post
CRT	contact repair team
DA	Department of the Army
DA PAM	Department of the Army pamphlet
DAFI	Department of the Air Force instruction
DCAM	DMLSS Customer Assistance Module
DD Form	Department of Defense form
DLA	Defense Logistics Agency
DMLSS	Defense Medical Logistics Standard Support
DNBI	disease and nonbattle injury
DOD	Department of Defense
DODD	Department of Defense directive
DODI	Department of Defense instruction
DODM	Department of Defense manual
DS	direct support
EAB	echelons above brigade
FDT	forward distribution team
FHP	force health protection
FM	field manual
FMSWEB	Force Management System Website
FRSD	forward resuscitative and surgical detachment
FSMP	forward support MEDEVAC platoon
GTA	graphic training aid
H2F	holistic health and fitness
HLZ	helicopter landing zone
HREC	health record
HSS	health service support
HW	hazardous waste
IBCT	infantry brigade combat team
IP	integrated policy
JP	joint publication
KPH	kilometers per hour

LSCO	large-scale combat operations
MA	mortuary affairs
MAP	modified table of organization and equipment assigned personnel
MASCAL	mass casualty
MC4	medical communications for combat casualty care
MCAA	medical company air ambulance
MCAS	medical company (area support)
MCRP	Marine Corps reference publication
MCTP	Marine Corps tactical publication
MCWP	Marine Corps warfighting publication
MDMC	multi-domain task force medical company
MDVSS	medical detachment, veterinary service support
MEDBDE (SPT)	medical brigade (support)
MEDCOP	medical common operational picture
MEDEVAC	medical evacuation
MEDLOG	medical logistics
MEDSEC	medical section
MES	medical equipment set
METT-TC (I)	mission, enemy, terrain and weather, troops and support available, time available, and civil considerations with informational considerations
MLC	medical logistics company
MMB	multifunctional medical battalion
MPH	miles per hour
MTF	medical treatment facility
NATO	North Atlantic Treaty Organization
NAVFAC MO	Navy facilities maintenance operations
NAVMED P	Navy publication medical
NCO	noncommissioned officer
NTRP	Navy tactical reference publication
NTTP	Navy tactics, techniques, and procedures
OE	operational environment
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
PA	physician assistant
PDS	patient decontamination site
PVNTMED	preventive medicine
RTD	return to duty
S-1	battalion or brigade personnel staff officer
S-2	battalion or brigade intelligence staff officer
S-3	battalion or brigade operations staff officer
S-4	battalion or brigade logistics staff officer

SBCT	Stryker brigade combat team
SERF	surface evacuation range fan
SF	standard form
SOP	standard operating procedure
SPO-MED	support operations section-medical
STANAG	standardization agreement
SW	solid waste
TB	technical bulletin
TB MED	technical bulletin medical
TC	training circular
TCCC	tactical combat casualty care
TM	technical manual
TMC	theater medical command
TMIP-J	Theater Medical Information Program-Joint
TO	theater of operations
TOE	table of organization and equipment
UFC	Unified Facilities Criteria
USAREUR	United States Army Europe

SECTION II – TERMS

air assault

The movement of friendly assault forces by rotary-wing or tiltrotor aircraft to engage and destroy enemy forces or to seize and hold key terrain. (JP 3-18)

ambulance control point

A manned traffic regulating, often stationed at a crossroad or road junction, where ambulances are directed to one of two or more directions to reach loading points and medical treatment facilities. (ATP 4-02.2)

ambulance exchange point

A location where a patient is transferred from one ambulance to another en route to a medical treatment facility. Also called AXP. (ATP 4-02.2)

ambulance loading point

This is the point in the shuttle system where one or more ambulances are stationed ready to receive patients for evacuation. (ATP 4-02.2)

ambulance relay point

A point in the shuttle system where one or more empty ambulances are stationed to advance to a loading point or to the next relay post to replace departed ambulances. (ATP 4-02.2)

area defense

A type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright. (ADP 3-90)

area of operations

An operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces. Also called AO. (JP 3-0)

area of responsibility

The geographical area associated with a combatant command within which a geographic combatant commander has authority to plan and conduct operations. Also called AOR. (JP 1, Volume 1)

Army Health System

A component of the Military Health System that is responsible for operational management of the health service support and force health protection missions for training, predeployment, deployment, and postdeployment operations. The Army Health System includes all mission support services performed, provided, or arranged by Army Medicine to support health service support and force health protection mission requirements for the Army and as directed, for joint, intergovernmental agencies, coalition, and multinational forces. (FM 4-02)

attack

A type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. (ADP 3-90)

breach

A tactical mission task in which the unit employs all available means to break through or establish a passage through an enemy defense, obstacle, minefield, or fortification. (FM 3-90-1)

casualty

Any person who is lost to the organization by having been declared dead, duty status—whereabouts unknown, missing, ill, or injured. (JP 4-02)

casualty evacuation

The movement of casualties aboard nonmedical vehicles or aircraft without en route medical care. Also called CASEVAC. (ATP 4-02.13)

combat and operational stress reaction

The physical, emotional, cognitive, or behavioral reactions, adverse consequences, or psychological injuries of Service members who have been exposed to stressful or traumatic events in combat or military operations. (DODI 6490.05)

command and control

The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Also called C2. (JP 1, Volume 2)

common operational picture

A display of relevant information within a commander's area of interest tailored to the user's requirements and based on common data and information shared by more than one command. (ADP 6-0)

decisive action

The continuous, simultaneous execution of offensive, defensive, and stability operations or defense support of civil authorities tasks. (ADP 3-0)

defensive operation

An operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations. (ADP 3-0)

delay

When a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on enemy forces without becoming decisively engaged. (ADP 3-90)

detachment left in contact

An element left in contact as part of the previously designated (usually rear) security force while the main body conducts its withdrawal. (FM 3-90-1)

division

An echelon of command and tactical formation that employs brigade combat teams, multi-functional brigades, and functional brigades to achieve objectives on land. (ADP 3-90)

envelopment

A form of maneuver in which an attacking force seeks to avoid the principal enemy defenses by seizing objectives behind those defenses that allow the targeted enemy force to be destroyed in their current positions. (FM 3-90-1)

exploitation

A type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth. (ADP 3-90)

fixing force

A force designated to supplement the striking force by preventing the enemy from moving from a specific area for a specific time. (ADP 3-90)

flank attack

A form of offensive maneuver directed at the flank of an enemy. (FM 3-90-1)

force health protection

Measures that promote, improve, or conserve the behavioral or physical well-being of Soldiers comprised of preventive and treatment aspects of medical functions that include: combat and operational stress control, dental services, veterinary services, operational public health, and laboratory services. Enabling a healthy and fit force, prevent injury and illness, and protect the force from health hazards. (FM 4-02)

frontal attack

A form of maneuver in which an attacking force seeks to destroy a weaker enemy force or fix a larger enemy force in place over a broad front. (FM 3-90-1)

health service support

The support and services performed, provided, and arranged by Army Medicine to promote, improve, conserve, or restore the behavioral and physical well-being of personnel by providing direct patient care that include medical treatment (organic and area support) and hospitalization, medical evacuation to include medical regulating, and medical logistics to include blood management. (FM 4-02)

infiltration

A form of maneuver in which an attacking force conducts undetected movement through or into an area occupied by enemy forces to occupy a position of advantage in the enemy rear while exposing only small elements to enemy defensive fires. (FM 3-90-1)

medical evacuation

The timely and effective movement of the wounded, injured, or ill to and between medical treatment facilities on dedicated and properly marked medical platforms with en route care provided by medical personnel. Also called MEDEVAC. (ATP 4-02.2)

medical intelligence

That category of intelligence resulting from collection, evaluation, analysis, and interpretation of foreign medical, bio-scientific, and environmental information that is of interest to strategic planning and to military medical planning and operations for the conservation of the fighting strength of friendly forces and the formation of assessments of foreign medical capabilities in both military and civilian sectors. Also called MEDINT. (JP 2-0)

mobile defense

A type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force. (ADP 3-90)

movement to contact

A type of offensive operation designed to develop the situation and to establish or regain contact. (ADP 3-90)

nontransportable patient

A patient whose medical condition is such that he could not survive further evacuation to the rear without surgical intervention to stabilize his medical condition. (ATP 4-02.2)

offensive operation

An operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers. (ADP 3-0)

operational public health

The application of public health practices and conduct of public health-related activities within a geographic area where military operations are conducted by TOE units. (AR 40-5)

patient

A sick, injured or wounded Soldier who receives medical care or treatment from medically trained personnel. (FM 4-02)

penetration

A form of maneuver in which an attacking force seeks to rupture enemy defenses on a narrow front to disrupt the defensive system. (FM 3-90-1)

pursuit

A type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it. (ADP 3-90)

retirement

When a force out of contact moves away from the enemy. (ADP 3-90)

retrograde

A type of defensive operation that involves organized movement away from the enemy. (ADP 3-90)

striking force

A dedicated counterattack force in a mobile defense constituted with the bulk of available combat power. (ADP 3-90)

triage

The process of sorting casualties based on need for treatment, evacuation, and available resources. (FM 4-02)

turning movement

A form of maneuver in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives behind the enemy's current positions thereby causing the enemy force to move out of their current positions or divert major forces to meet the threat. (FM 3-90-1)

withdraw

To disengage from an enemy force and move in a direction away from the enemy. (ADP 3-90)

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Standard Forms are available online: www.gsa.gov.

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08 November 2022

By Order of the Secretary of the Army:

JAMES C. MCCONVILLE
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