ATP 4-02.10

ARMY HOSPITALIZATION (ROLE 3)

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ARMY HOSPITALIZATION (ROLE 3)

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Preface

Army Techniques Publication (ATP) 4-02.10 describes hospitalization, as one of the ten medical functions, as well as tactics, techniques, and procedures to plan and employ a Role 3 Army hospital and hospital augmentation organizations within an area of operations. This publication discusses the medical function and the essential care typically associated with Role 3 hospitalization. This publication was also developed to address hospitalization across the range of military operations, including large-scale combat operations as described in Field Manual (FM) 3-0.

The principal audience for ATP 4-02.10 is commanders, staffs, surgeons and surgeon sections at echelon, Army Health System (AHS) planners, and Army Medical Department personnel and units.

Commanders, staffs, and subordinates ensure that their decisions and actions comply with applicable United States, international, and in some cases host-nation laws and regulations. Commanders at all levels ensure that their Soldiers operate in accordance with the law of armed conflict and the rules of engagement (refer to Field Manual [FM] 6-27).

This publication implements or is in consonance with the following North Atlantic Treaty Organization (NATO) International Standardization Agreements (STANAG) and American, British, Canadian, Australian, and New Zealand (ABCANZ) Armies' standards or publications:

TITLE	NATO STANAG	ABCANZ STANDARD
Allied Joint Medical Doctrine for Military Health Care (MHC) (Edition 1)—AMedP-8 (Edition A)	2598	
Trauma Registry		2082
Blood Logistics		2156
Forward Surgical Capabilities		2152
Identification of Medical Material for Field Medical Installations (Edition 5)—AMedP-1.5 (Edition A)	2060	
Minimum Requirements for Blood, Blood Donors and Associated Equipment (Edition 6) AMedP-1.1 (Edition A)	2939	
Orders for the Camouflage of Protective Medical Emblems on Land in Tactical Operations (Edition 4)—ATP-79 (Edition B)	2931	
Prehospital Blood Resuscitation		2148
Requirement for Training in Casualty Care and Basic Hygiene for Military Personnel (Edition 5)—AMedP-8.15 (Edition B)	2122	
Requirements of Individual Operational Rations for Military Use (Edition 5)—AMedP-1.11 (Edition A)	2937	

ATP 4-02.10 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. Terms for which ATP 4-02.10 is the proponent publication (the authority) are italicized in the text and are marked with an asterisk (*) in the glossary. Terms and definitions for which ATP 4-02.10 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized, and the number of the proponent publication follows the definition.

This publication applies to the Active Army, Army National Guard/Army National Guard of the United States, and United States Army Reserve unless otherwise stated.

The use of the term Role 3 throughout this publication is used as a generalized term. When Role 3 hospitalization, Role 3 medical center, Role 3 field hospital, or Role 3 medical treatment facility is used, it is used in context for that specific type of hospital unit or to match verbiage in the paragraph.

This publication supersedes ATP 4-02.10 dated 14 August 2020 and rescinds ATP 4-02.25 dated 7 December 2020. Throughout this publication, as appropriate, reference is made to the major policy guidance affecting each specific topic. These references should not be considered as 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, governmental or nongovernmental agency involved.

The proponent and preparing agency of ATP 4-02.10 is the United States Army Medical Center of Excellence. Send comments and recommendations on Department of Army Form 2028 *(Recommended Changes to Publications and Blank Forms)* to Commander, United States Army Medical Center of Excellence, Attention: ATMC-FD (ATP 4-02.10), Building 4011, Suite B, 2377 Greeley Road, JBSA Fort Sam Houston, TX 78234-7731; or by email to usarmy.jbsa.medical-coe.mbx.ameddcs-medical-doctrine@army.mil or submit and electronic Department of the Army Form 2028. All recommended changes should be keyed to the specific page and paragraph number. A rationale for each proposed change is required to aid in the evaluation and adjudication of each comment.

Introduction

Observations from the conflict in Eastern Europe, lessons learned from Afghanistan and Iraq, analysis of the operational medicine transformational goals, and the Army's adoption of the multidomain operations operational concept were integrated into this publication.

ATP 4-02.10 consists of four chapters:

- **Chapter 1** presents commanders and staff with a discussion about hospitalization as a medical function and what Role 3 is within the Army Health System. It describes the linkage between the Army Health System principles and the Army tenets of operations and imperatives and describes the essential care provided by operational medical Role 3 hospitals employed in an area of operations. This includes eligibility of care, and law of armed conflict.
- **Chapter 2** provides information on the hospitalization organization's missions, assignment and dependencies, capabilities and functions, employment, basis of allocation, and mobility.
- **Chapter 3** provides commanders and staff with operational considerations, such as employment of hospitalization units, eligibility of care, Geneva Conventions and medical ethics, command and support relationships, patient movement, hospital medical supply and logistics operations, nutrition care operations, hospitalization support to specific operations, and operational environments.
- **Chapter 4** discusses specialized surgical and medical augmentation detachments and teams' missions, assignment and dependencies, capabilities and functions, employment, basis of allocation, and mobility in their support of the Role 3 hospital and Role 2 medical company.
- **Appendix A** outlines potential hospitalization activities that align with the Army's strategic contexts of competition below armed conflict, crisis, and armed conflict.
- **Appendix B** outlines the key factors and data needed for hospital planning.
- **Appendix C** is a guide for Geneva Conventions and medical ethics compliance.
- **Appendix D** provides guidelines for environment waste management.
- **Appendix E** provides guideline and regulatory requirements for safety management.
- **Appendix F** outlines the training opportunities available to hospitalization units and specialized surgical and medical augmentation units.
- **Appendix G** provides an overview of the medical information and communication systems.
- **Appendix H** provides a brief description of telemedicine in the Role 3 hospital.

The United States Army Medical Center of Excellence is reorganizing the placement of terms and definitions found in proponent publications within the Army Medicine's 4-02 series doctrine manuals. It was determined that some of the terms are best suited in other publications within this series.

Based on current doctrinal changes, certain terms for which ATP 4-02.10 is the proponent have been added, rescinded, or modified for purposes of this publication. The glossary contains acronyms and defined terms. See introductory table-1 and introductory table-2 on page x for specific term changes.

Introductory table-1. New Army terms

Term	*Remarks*
Damage control resuscitation	establishes term definition and proponent publication
Damage control surgery	establishes term definition and proponent publication

Introductory table-2. Modified Army terms

Term	*Remarks*
Forward resuscitative surgery	ATP 4-02.10 is now the proponent publication
Nontransportable patient	ATP 4-02.10 is now the proponent publication
hospital	modifies term definition
inpatient	modifies term definition
outpatient	modifies term definition
patient	ATP 4-02.10 is now the proponent publication

Chapter 1

Hospitalization Overview

Army hospitalization is the Army's contribution to the joint theater hospitalization medical function. The term hospitalization is used to describe that portion of health care delivery provided at Role 3 Army hospitals for all classes of patients whose conditions cannot be managed on an outpatient or patient holding status. This chapter describes the hospitalization medical function and the operational capabilities available at the Role 3 hospital. Role 4 hospitalization is a part of the military health system and is found in continental United States (CONUS)-based medical treatment facilities (MTFs) and other safe havens (to include robust overseas MTFs and normally located outside of the area of operations. As the highest role of care, the Role 4 hospital provides definitive care.

SECTION I – HOSPITALIZATION AS A MEDICAL FUNCTION

1-1. 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 Army Health System (AHS) includes all mission support services performed, provided, or arranged by the Army Medicine to support health service support and force health protection mission requirements for the Army and as directed, for joint, intergovernmental agencies, Army Forces, and multinational forces (FM 4-02).

INTRODUCTION TO HOSPITALIZATION

1-2. Hospitalization is one of the ten medical functions and is part of the AHS mission for management of wounded, ill, and injured (WII) personnel in an operational environment (OE). Hospitalization occurs primarily under the health service support (HSS) mission component of the AHS which is aligned with the sustainment warfighting function. While some medical support within a hospital falls into both HSS and force health protection (FHP) (aligned with the protection warfighting function), they are typically associated with the medical treatment of patients defined by HSS. For more information on FHP, HSS, and the other medical functions, refer to Field Manual (FM) 4-02.

1-3. A *medical treatment facility* (Joint) is a facility established for the purpose of furnishing medical and/or dental care to eligible individuals (Joint Publication [JP] 4-02); (Army) is any facility established for the purpose of providing medical treatment. This includes battalion aid stations, Role 2 facilities, dispensaries, clinics, and hospitals (FM 4-02). **A *hospital* is a medical treatment facility capable of providing inpatient care.** A hospital is further described as appropriately staffed and equipped to provide diagnostic and therapeutic services, as well as the necessary supporting services required to perform its assigned mission, functions, and primary tasks and purposes. In addition, a hospital may discharge the functions of a clinic. Often, the terms hospital and MTF are misused interchangeably. While a Role 3 MTF provides hospitalization and is therefore a hospital, Role 1 and 2 MTFs do not provide all the capabilities and robust medical functions included in hospitalization. Thus, Role 1 and 2 MTFs are not hospitals.

Note. Care should be taken when using the terms casualty and patient. A *casualty* is any person who is lost to the organization by having been declared dead, duty status-whereabouts unknown, excused absence-whereabouts unknown, missing, ill, or injured (JP 4-02). **A *patient* is a wounded, ill and injured Soldier who receives medical care or treatment from medically trained personnel.** A casualty has transitioned into a patient the moment a combat medic specialist or medical provider renders treatment, and the patient enters the continuum of care.

1-4. The Role 3 hospital provides essential care within an area of operations (AO) to treat and return to duty (RTD) those patients who can be treated within the theater evacuation policy or to stabilize patients that require evacuation out of theater for further definitive, convalescent, or rehabilitative care. *Essential care* is

the absolutely necessary initial, en route, resuscitative, and surgical care provided to save, stabilize, and return as many Soldiers to duty as quickly as possible (FM 4-02). It includes first responder care, initial resuscitation, and stabilization as well as treatment and hospitalization. Forward care may include stabilizing surgery to ensure the patient can tolerate further evacuation as well as en route care during evacuation. The objective is to either have the patient RTD within the theater evacuation policy or to begin initial treatment required for optimization of outcome. *Return to duty* is a patient disposition which, after medical evaluation and treatment, when necessary, returns a Soldier for duty in their unit (FM 4-02).The *theater evacuation policy* is a command decision indicating the length in days of the maximum period of non-effectiveness that patients may be held within the command for treatment and the medical determination of patients that cannot return to duty status within the period prescribed requiring evacuation by the first available means, provided the travel involved will not aggravate their disabilities or medical condition. (ATP 4-02.2).

1-5. The hospitalization medical function has several capabilities which consists of triage, emergency medical treatment, pre-operative care, surgical and anesthesia services (general, thoracic, orthopedic, obstetrics-gynecological, urological, and oral maxillofacial), inpatient care (nursing services, intensive care unit, and intermediate care ward), outpatient services (behavioral health services, physical therapy, and operational dental care), pharmacy services, clinical laboratory services (including blood banking and microbiology), radiology services (including computed tomography), nutrition care services, medical logistics (MEDLOG), patient administration services, laundry and shower services, medical consultation services, and religious support and pastoral care.

1-6. The Role 3 hospital center can be augmented by one or more specialty teams and detachments, further increasing the capabilities and capacities of the hospital. See Chapter 3 and Chapter 4 of this publication for further information.

The paragraphs below implement NATO STANAG 2598 and ABCANZ standards 2148 and 2152.

DAMAGE CONTROL RESUSCITATION AND DAMAGE CONTROL SURGERY

1-7. ***Damage control resuscitation*** **is the strategy to limit blood loss and prevent coagulopathy by combining hypotensive resuscitation, early airway control, and early and balanced use of blood products and other hemostatic agents. Also known as DCR**. ***Damage control surgery*** **is surgical intervention (rapid initial control of bleeding and contamination with packing and temporary closure) to keep the patient alive, targeted at prevention of the triad of death (hypothermia, acidosis, and coagulopathy), rather than correction of anatomy. Also known as DCS**.

1-8. DCR and DCS happen at different stages in the military health system, depending on the severity of the injury and the resources available. DCR is used to limit blood loss and prevent dangerous conditions like coagulopathy by managing blood pressure, controlling the airway, and using blood products early. This process can start as early as Role 1, which is the immediate care given at the point of injury or at a battalion aid station. It continues at Role 2, where more advanced medical teams can provide better resuscitation. At Role 3, which is a larger hospital in the combat zone, DCR is fully available with more equipment and medical staff.

1-9. DCS, on the other hand, is focused on quickly stopping bleeding and controlling contamination through surgery. The goal is to prevent the “triad of death,” which includes hypothermia, acidosis, and coagulopathy. This type of surgery is usually performed at Role 2 if there are surgical teams present, but it is most done at Role 3, where larger hospitals and surgical facilities are set up to handle more severe injuries.

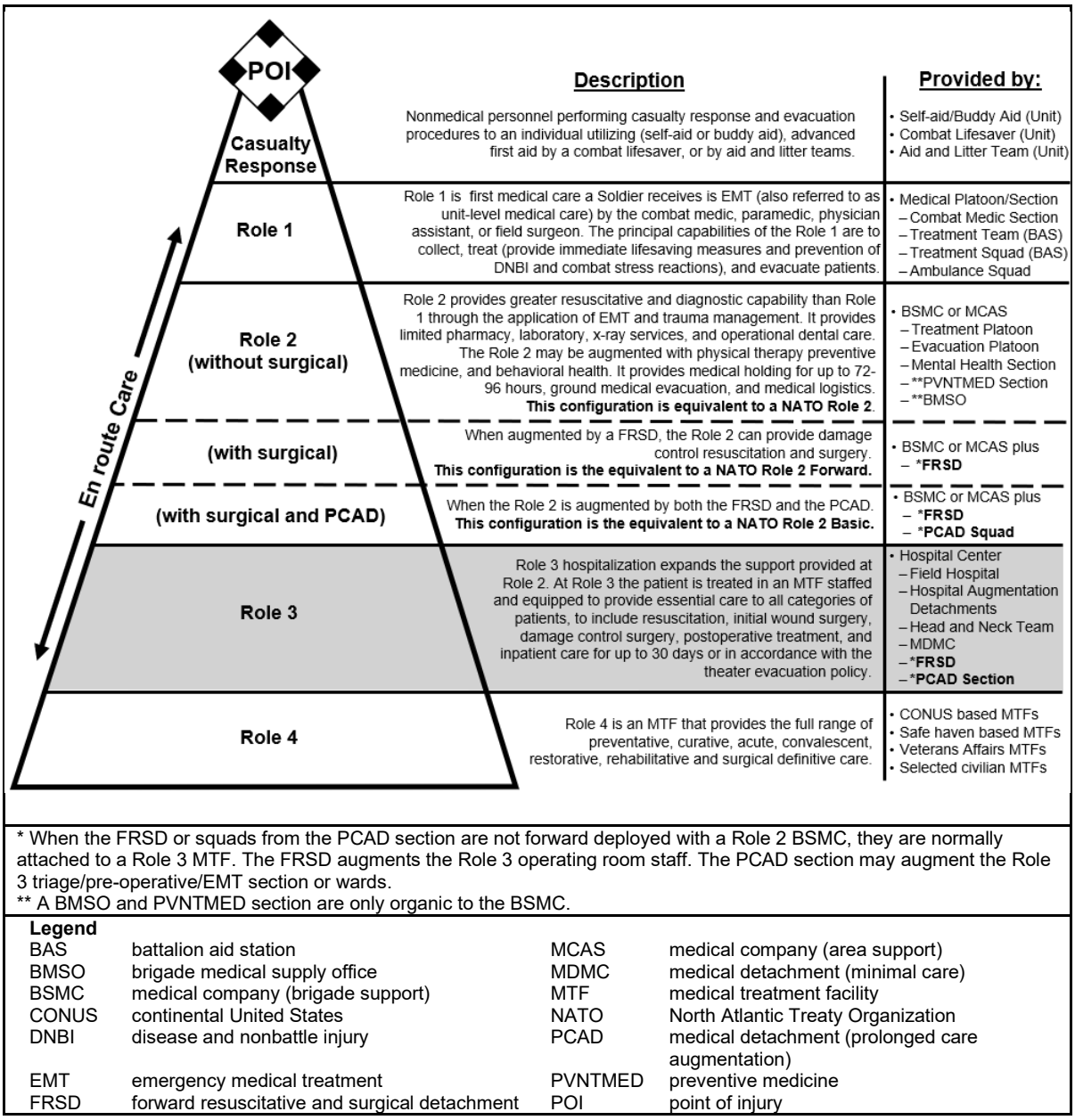
1-10. In short, DCR can happen at all three early roles of care, while DCS typically occurs at Role 2 and Role 3, where surgical capabilities are available.

SECTION II – ROLE 3 MEDICAL CARE

1-11. At Role 3, the patient is treated in an MTF staffed and equipped to provide essential care to all categories of patients, to include damage control resuscitation (DCR), initial wound surgery, damage control surgery (DCS), and postoperative treatment for up to 30 days (the number of inpatient days may fluctuate due to proximity to the forward edge of the battle area and the OE or in accordance with the theater evacuation policy. This role of care expands the advanced trauma management and emergency medical treatment (EMT) provided at Role 2. For additional information on hospitalization in support of the Army's strategic contexts, see Appendix A.

1-12. Patients who are unable to tolerate and survive movement over long distances receive surgical care in a forward resuscitative and surgical detachment (FRSD) or Role 3 hospital as close to the supported unit as the tactical situation allows. This may be followed by inpatient care in accordance with the theater evacuation policy. Figure 1-1 on page 4 depicts the roles of care and where the Role 3 fits into the continuum of care. *Roles of medical* care is the characterization of health support for the distribution of medical resources and capabilities (JP 4-02). Role 3 hospitalization includes provisions for—

- Coordination of patient evacuation through medical regulating.
- Providing essential care for all categories of patients in an MTF with the proper staff and equipment.
- Providing medical treatment and hospitalization support on an area basis to units without organic medical assets.



* When the FRSD or squads from the PCAD section are not forward deployed with a Role 2 BSMC, they are normally attached to a Role 3 MTF. The FRSD augments the Role 3 operating room staff. The PCAD section may augment the Role 3 triage/pre-operative/EMT section or wards.
** A BMSO and PVNTMED section are only organic to the BSMC.

Legend

BAS	battalion aid station	MCAS	medical company (area support)
BMSO	brigade medical supply office	MDMC	medical detachment (minimal care)
BSMC	medical company (brigade support)	MTF	medical treatment facility
CONUS	continental United States	NATO	North Atlantic Treaty Organization
DNBI	disease and nonbattle injury	PCAD	medical detachment (prolonged care augmentation)
EMT	emergency medical treatment	PVNTMED	preventive medicine
FRSD	forward resuscitative and surgical detachment	POI	point of injury

Figure 1-1. United States Army roles of care

1-13. Under the hospital center construct there are five separate units, with associated Tables of Organization and Equipment (TOE) that make up the hospital center. These units are discussed in Chapter 2.

1-14. When patients are transferred from Role 3 by intertheater medical evacuation (MEDEVAC), they are received at a Role 4 MTF located in CONUS-based hospitals and other safe havens (to include robust overseas Role 4 MTF). If mobilization requires expansion of military hospital capacities, then the Department of Veterans Affairs and civilian hospital beds in the National Disaster Medical System (NDMS) are added to meet the increased demands created by the evacuation of patients from the operational area. These installation-based hospitals represent the most definitive medical care available within the military health system. The description that best defines a 'Role 4 MTF' is an MTF that provides the full range of definitive care that includes preventative, curative, acute, convalescent, restorative, rehabilitative, and surgical care.

SECTION III – HOSPITALIZATION PRIMARY TASKS AND PURPOSES

1-15. Using a restrictive definition for hospitalization is challenging. It is more effective to conceptualize hospitalization by focusing on its functions. At a Role 3 MTF, there are several tasks that either cannot be performed at a Role 1 or 2 MTF or are carried out with greater capability and capacity. The functions described below are not an exhaustive list, as there are additional capabilities provided by specialty augmentation teams that may supplement the hospital's tasks. For a more detailed description of these functions and the hospital sections responsible for them, see Chapter 2 through Chapter 4. Table 1-1 depicts the hospitalization primary tasks and purposes.

Table 1-1. Hospitalization primary tasks and purposes

Primary task	***Purpose***
Provide essential care	Includes first responder care (casualty response), initial resuscitation, and stabilization as well as treatment and hospitalization to either return the patient to duty within the theater evacuation policy, or to begin initial treatment required for optimization of outcome.
Perform triage and emergency care	Provides for the receiving of incoming patients to assess their medical condition, provide emergency medical treatment, and transfer them to the appropriate functional area within the hospital.
Provide forward resuscitation and surgery	Provide damage control resuscitation and damage control surgical capabilities close to the point of injury or wounding. These capabilities are only provided by a forward resuscitative and surgical detachment when it is collocated with a Role 2 medical company.
Perform general and specialty surgery	Perform initial surgery for battle and nonbattle injuries and follow-on surgery for patients received from a forward resuscitation and surgical detachment or other medical treatment facilities to include general, thoracic, orthopedic, obstetrics-gynecological, urological, and oral maxillofacial surgical services to return patients to duty or stabilize them for further evacuation.
Provide anesthesia services	Provides anesthesia and respiratory services for the hospital that includes respiratory therapy by specifically trained technicians and the ability to provide mechanical respiratory assistance in intensive care units and the operating rooms.
Provide inpatient care	Provides nursing and medical services in intensive and intermediate care wards to prepare patients for surgery, manage postoperative recovery, monitor patients, and prepare them for further evacuation. This includes pain medicine services.
Manage nutrition care	Provides food service management, meal preparation, modified diet food preparation, and distribution of foods to patients and staff.
Provide pharmacy support	Operates a fully functioning pharmacy and exercises appropriate control, accountability, and distribution of medications and controlled substances to both inpatients and outpatients as prescribed by medical staff.
Perform clinical laboratory, blood banking, and microbiology	Performs analytical procedures in biochemistry, hematology, serology, urinalysis, chemistry, blood banking, and microbiology screening. Includes all routine blood grouping and typing, abbreviated cross-matching procedures, emergency blood collection, and storage/issuing liquid and frozen blood products.

Table 1-1. Hospitalization primary tasks and purposes (continued)

Primary task	*Purpose*
Provide radiology services	Provides radiological services to all areas of the hospital and operates on a 24-hour basis to include computed tomography.
Provide outpatient services	Provides patient care and family medicine consultation services, evaluation and treatment of dermatological and gynecological diseases, injuries, disorders, orthopedic and physical therapy services; sick call operations and comprehensive routine medical care in the medical services clinic.
Conduct physical therapy	Provides a physical-occupational clinic to evaluate and treat neuromusculoskeletal injuries, minor soft tissue wounds to include burn wound treatment, injury prevention, and human performance optimization.
Provide operational dental care	Provides operational dental services and consultation for patients and staff in order treat urgent dental cases or prevent dental emergencies.
Provide behavioral health services	Provides behavioral health, outpatient psychiatry, and inpatient neuropsychiatric consultation and education services.
Provide consultation support	Provide specialty medical consultation to Role 1 and 2 medical providers to enhance the care given in forward areas, potentially eliminating the need to evacuate some patients rearward.
Provide patient administration services	Admission and disposition of patients, maintaining patient records, security of patient valuables, statistical reporting, patient privacy policies, and coordination for patient evacuation out of theater.
Provide medical logistics	Provides Class VIII management, requisitioning, and resupply as well as maintenance on medical devices. Coordinates with supporting medical logistics company and medical detachment (blood support) for required external medical logistics support.

1-16. Hospitalization includes highly robust services that encompass emergent care; enhanced medical, surgical, and ancillary capabilities; and primary inpatient and outpatient care. ***Inpatient*** **refers to a person admitted to and treated within a Role 3 hospital and who cannot be returned to duty within the same calendar day**. An ***outpatient*** **is a person receiving medical/dental examination and/or treatment from medical personnel and in a status other than being admitted to a hospital.** Included in this category is the person who is treated and retained (held) in a MTF other than a hospital, such as a Role 2 facility. Patient holding at a Role 2 medical company does not equal inpatient status or hospitalization.

1-17. Planning for hospitalization is crucial. For additional hospitalization planning factors, see Appendix B.

1-18. The Role 3 MTF has certain protections under the Geneva and Hague Conventions. Medical ethics play a role in hospitalization as well. For additional information on the medical aspects of the law of armed conflict and medical ethics, see Appendix C.

1-19. Role 1 and 2 MTFs maintain a limited supply of medications. A Role 3 MTF operates a fully functioning pharmacy and exercises appropriate control, accountability, environmental management, and distribution of medications and controlled substances.

1-20. Role 3 MTFs provide clinical laboratory services, which includes basic microbiology screening and blood banking. Role 3 hospital laboratories have a much more robust capability and capacity than what is provided by a Role 2 MTF.

1-21. Radiology services provided by the Role 3 MTF are more capable than that of a Role 2 MTF. The Role 3 MTF has the added capability of providing computed tomography (CT) services.

1-22. Medical logistics occurs at all roles of care. At Roles 1 and 2 MTFs, MEDLOG is focused on maintaining required supplies and ensuring operator level medical device services are conducted. However, a Role 3 MTF has a robust MEDLOG capability, and most notably, can conduct much of its own medical maintenance. See Chapter 3 for a discussion on MEDLOG operations within a hospital.

1-23. A Role 3 MTF is the first place in the continuum of care where nutritional expertise and support is provided by specifically trained nutrition care personnel. See Chapter 3 for a discussion on nutrition care operations in a hospital.

1-24. Training to fulfill all the responsibilities of a Role 3 MTF is challenging. For a list of hospitalization training opportunities, see Appendix F.

1-25. Informal patient administration is conducted at Role 1 and 2 MTFs which is essentially patient accountability and disposition of treatment records. Role 3 MTF is the first point in the continuum of care where formal medical regulating is executed. It entails the admission and disposition of patients, maintaining patient records, security of patient valuables, statistical reporting, patient privacy policies, and coordination for patient evacuation rearward or out of theater. See Chapter 3 for a discussion of patient administration operations in a hospital. For additional information on information systems, see Appendix G.

1-26. Respiratory care performed at a Role 3 MTF is much more than simply administering oxygen. Hospitalization includes respiratory therapy by specifically trained technicians and the ability to provide support for patients that require supplementation of oxygen, administration of aerosolized medicines, general care of the patient with ventilatory compromise, and mechanical respiratory assistance in an intensive care unit (ICU).

1-27. The Role 3 MTF has many medical capabilities that can be shared outside the confines of the facility. Telemedicine is a way to extend the knowledge of the Role 3 MTF capabilities. For more information on of hospitalization in telemedicine, see Appendix H.

1-28. Waste and safety are key components of a Role 3 MTF. Ensuring medical waste is properly disposed of and ensuring safety are primary focuses of hospitalization. For more information of waste, see Appendix D and for hospital safety, see Appendix E.

1-29. DCR can and does take place by medical units prior to a patient reaching a Role 3 MTF. DCS and forward resuscitative surgery can also be accomplished at a Role 2 MTF if augmented by a FRSD. ***Forward resuscitative surgery*** **is urgent initial surgery required to render a patient transportable for further evacuation to an inpatient medical treatment facility staffed and equipped to provide for the patient's care**. Roles of care during large-scale combat operations should not be skipped as this will quickly overwhelm Role 3 MTFs within the AO. However, mission, enemy, terrain and weather, troops and support available, time available, civil considerations, and (informational considerations) (METT-TC [I]), also known as mission variables, and the theater evacuation policy may dictate when WII patients can be evacuated from near the point of injury (POI) directly to a Role 3 MTF. *Point of injury* is the location a wounding, illness, or injury was sustained. (FM 4-02).

1-30. Hemorrhage is the leading cause of preventable death on the battlefield. DCR was developed to work synergistically with DCS and prioritizes non-surgical interventions, which may reduce morbidity and mortality from trauma and hemorrhage. The major principle of DCR is to restore homeostasis, prevent or mitigate the development of tissue hypoxia, oxygen debt, and burden of shock as well as coagulopathy. This includes the best evidence-based practices for addressing life-threatening injuries through aggressive hemorrhage control and early blood transfusion near the POI.

1-31. The FRSD and Role 3 MTF DCS are described as the rapid termination of an operation after control of life-threatening bleeding and contamination followed by correction of physiologic abnormalities allowing the patient to be stabilized for further evacuation. This strategy involves a staged approach to multiple injured patients designed to avoid or correct the lethal triad of hypothermia, acidosis, and coagulopathy before definitive management of injuries. It is applicable to a wide variety of disciplines. During the first stage of DCS, hemorrhage is stopped, and contamination is controlled using the simplest and most rapid means available. Temporary wound closure methods are employed (patient dependent). The second stage is characterized by correction of physiologic abnormalities in the post-operative recovery area. Patients are warmed and resuscitated, and coagulation defects are corrected. Once patients are stabilized at the FRSD, they are evacuated rearward to the Role 3 MTF. For patients receiving DCS at the Role 3 MTF, once stabilized they can: remain at Role 3 MTF for essential care; be evacuated rearward to be closer to a strategic

evacuation node; or evacuated out of theater to a Role 4 MTF where the final phase of DCS is completed, the definitive operative management of the stable patient.

SECTION IV – HOSPITALIZATION SUPPORT TO ARMY OPERATIONS

1-32. The Army's primary mission is to organize, train, and equip its forces to conduct prompt and sustained land combat to defeat enemy ground forces and seize, occupy, and defend land areas. It supports four strategic roles for the joint force. Army forces shape OEs, counter aggression during crisis, prevail during large-scale ground combat, and consolidate gains. The Army accomplishes its strategic roles by providing forces for joint campaigns that enable integrated deterrence of adversaries outside of conflict and the defeat of enemies during conflict or war.

1-33. The hospitalization medical function supports the Army in achieving its primary mission by providing hospitalization at the theater army, corps, and division echelons. The synchronization and coordination of Army hospitalization, as well as its integration with joint services, is essential to conserving the fighting strength by returning as many Soldiers to duty as far forward as possible.

1-34. *Multidomain operations* are the combined arms employment of joint and Army capabilities to create and exploit relative advantages to achieve objectives, defeat enemy forces, and consolidate gains on behalf of joint force commanders (FM 3-0). Multidomain operations is the Army's operational concept. It spans the competition continuum and are the Army's contribution to joint campaigns. The Army hospitalization medical function enables multidomain operations through the provision of hospitalization, surgical, medical, and minimal care capabilities that support maneuver forces at echelon. For additional information on the strategic context, tenets, and imperatives, refer to FM 3-0. Figure 1-2 on page 9 depicts the medical functions in support of multidomain operations and where hospitalization is located within the land domain.

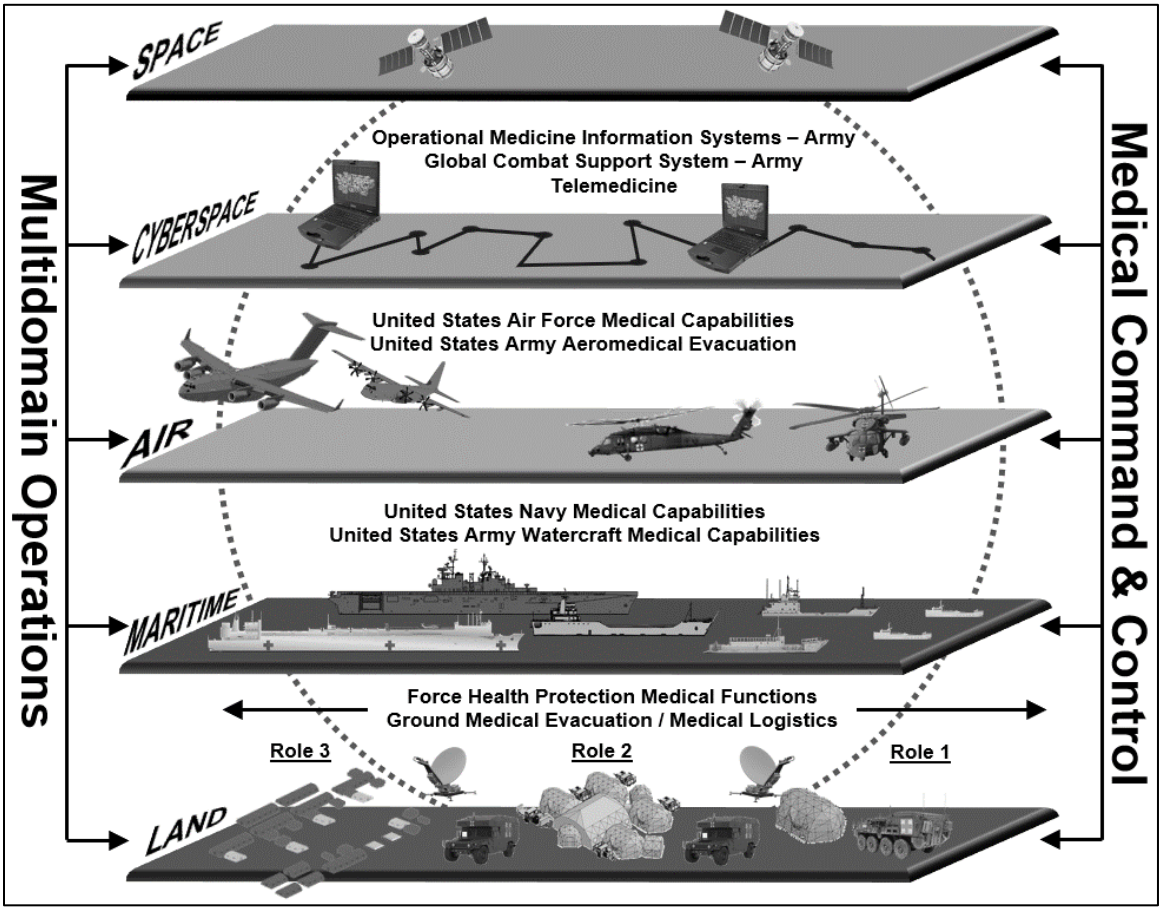


Figure 1-2. Medical functions in support of multidomain operations

HOSPITALIZATION SUPPORT TO THE ARMY STRATEGIC CONTEXTS

1-35. Army forces support national objectives across a wide range of military operations from security cooperation through crisis response to large-scale combat operations. Theater armies' campaign across the competition continuum however, Army tactical units are normally engaged in one strategic context at a time. Therefore, Army doctrine describes the strategic situation through three contexts in which Army forces conduct operations:

- Competition below armed conflict (referred to as competition).
- Crisis.
- Armed conflict.

1-36. Hospitalization capabilities are employed throughout the competition continuum with the primary difference being the scale of support and the health and enemy threats. Figure 1-3 on page 10 provides an illustration of the Army strategic contexts and operational categories. Hospitalization capabilities may be employed to support crisis in one operational area and armed conflict in another, within the same area of responsibility. For more information on hospitalization in support of the strategic contexts, see Appendix A.

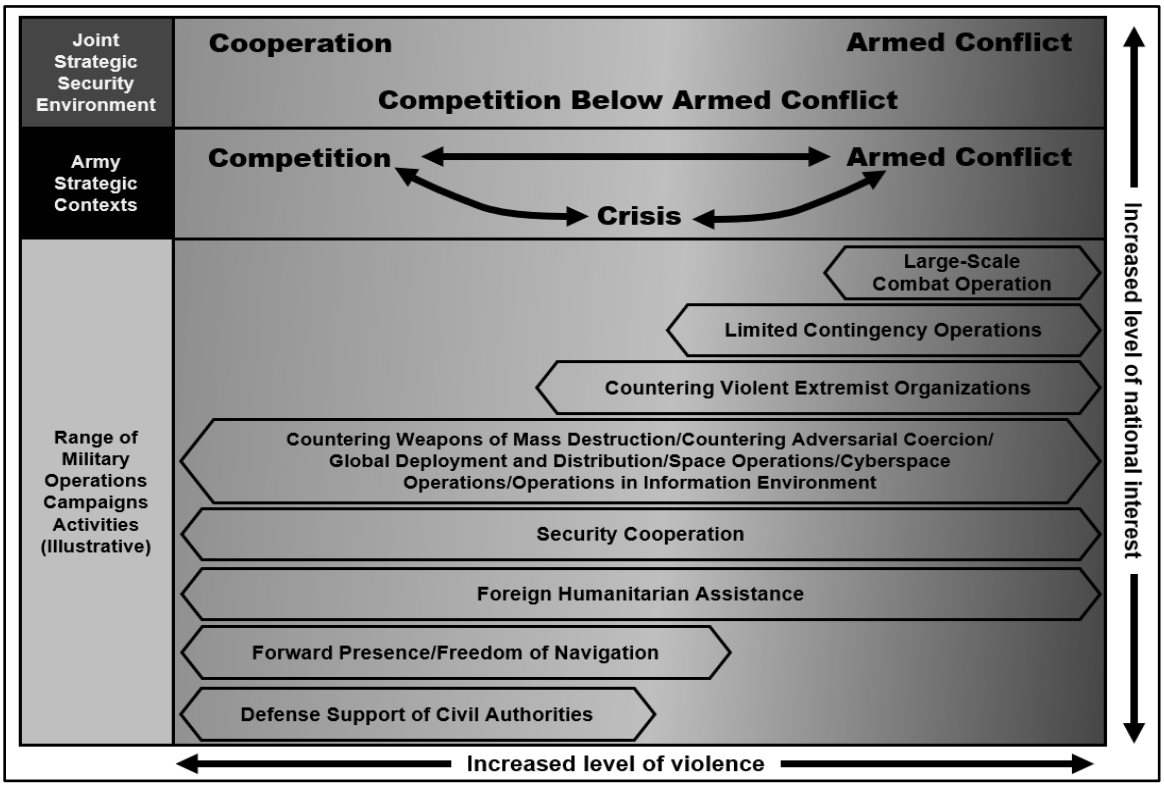


Figure 1-3. The Army strategic contexts and operational categories

COMPETITION BELOW ARMED CONFLICT

1-37. Competition exists when two or more state or non-state adversaries have incompatible interests, but neither seeks armed conflict. Nation-states compete using all instruments of national power to gain and maintain advantages that help them achieve their goals. Low levels of lethal force can be part of competition below armed conflict. Competition provides military forces time to prepare for armed conflict, opportunities to assure allies and partners of resolve and commitment, and time and space to set the necessary conditions to prevent crisis or conflict.

1-38. The hospitalization medical function supports operations during competition include military engagement, security cooperation, set the theater tasks, and the Army support to other Services. Hospitalization can be instrumental in building partnership and capacity. Due to the scarcity of hospitalization capabilities in most nations armed forces, Army hospitalization can be an invaluable tool.

CRISIS

1-39. A *crisis* is an emerging incident or situation involving a possible threat to the United States, its citizens, military forces, or vital interests that develops rapidly and creates a condition of such diplomatic, economic, or military importance that commitment of military forces and resources is contemplated to achieve national and/or strategic objectives (JP 3-0). The context of crisis is relative to an adversary, which is different from crisis response, which can result from a natural or human disaster. During crisis, armed conflict has not yet occurred, but it is either imminent or a distinct possibility that requires rapid response by forces prepared to fight if deterrence fails.

1-40. Operational medicine planners should be prepared for a crisis resulting from an adversary or human and natural disasters. Medical planners and commanders should consider the possibility that military action may escalate a crisis towards armed conflict and allocate hospitalization assets to best support operations and the population at risk (PAR).

ARMED CONFLICT

1-41. Armed conflict occurs when a state or non-state actor uses lethal force as the primary means to satisfy its interests. Armed conflict can range from irregular warfare to conventional warfare and combinations of both. Army forces may enter armed conflict with little or advanced warning.

1-42. The hospitalization medical function enables returning Soldiers to duty as far forward as possible and clearing the battlefield of patients to enable freedom of movement and maneuver. In armed conflict, hospitalization units may operate within the theater, corps, and division echelons with attached units such as the FRSD and elements of the medical detachment (prolonged care augmentation) (PCAD) being utilized within a maneuver brigade's AO.

HOSPITALIZATION LINK TO THE ARMY TENETS OF OPERATIONS

1-43. Tenets of operations are desirable attributes that should be built into all plans and operations, and they are related to how multidomain operations should be conducted. Hospital leaders use the tenets of operations to inform and assess courses of action throughout the operations process. The tenets of operations are agility, convergence, endurance, and depth.

AGILITY

1-44. *Agility* is the ability to move forces and adjust their dispositions and activities more rapidly than the enemy (FM 3-0). Agility is integral to survivability during large-scale combat operations. Agility is tied to the mobility AHS principle.

1-45. Hospitalization units lack ability to rapidly displace to avoid enemy detection and action. Hospitalization units should train and master the ability to quickly complex (set up) the hospital to become fully mission capable and decomplex (tear down) tentage, shelters, and equipment to increase greater freedom of action and endurance. Large-scale combat operations require flexibility. Hospitalization units should train and gain proficiency in the ability to quickly change task, direction, or focus, and reorganize and reintegrate as the operational situation dictates. Changes may come due to a transition between operational phases or in response to enemy actions. Elements of a hospital center in support of a division may not complex the entire hospital, may be required to split the hospital, or be required to quickly relocate to maintain proximity to the supported maneuver force.

CONVERGENCE

1-46. *Convergence* is an outcome created by the concerted employment of capabilities from multiple domains and echelons against combinations of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area (FM 3-0). Convergence occurs when a higher echelon and its subordinate echelons create effects from and in multiple domains in ways that defeat or disrupt enemy forces long enough for friendly forces to effectively exploit the opportunity.

1-47. The hospitalization medical function supports convergence by setting medical conditions that provide options during crisis and enable success at the outset of armed conflict. Army hospitalization provides Role 3 support while joint forces set the theater and forces continue to move and extend lines of communication. Senior medical leaders establish medical support agreements with allies and partners that facilitate situational understanding, decision making, and synchronization of AHS capabilities during armed conflict. Medical commanders should understand the concept of operations to anticipate hospitalization requirements on a dynamic battlefield where convergence creates exploitable opportunities that enable freedom of action and mission accomplishment.

ENDURANCE

1-48. *Endurance* is the ability to persevere over time throughout the depth of an operational environment (FM 3-0). Endurance is key to sustaining operations for as long as necessary to achieve the desired outcome.

1-49. Hospitalization units anticipate changing requirements and support the force for as long as necessary. Hospitalization units should train to complex and decomplex the hospital and know other Service and unified

action partner (UAP) hospital capabilities whenever possible. This synchronized integration of hospitalization creates a redundancy of joint, host nation (HN) and UAP hospitalization assets all working together. Degraded communications should be anticipated, planned for, and analog systems should be included into tactical standard operating procedures (TACSOPs) as an alternate means of communication to enable units to maintain acceptable tempo for as long as necessary.

DEPTH

1-50. *Depth* is the extension of operations in time, space, or purpose to achieve definitive results (ADP 3-0). Commanders achieve depth by understanding enemy strengths and weaknesses and attacking them in simultaneous and sequential fashion.

1-51. The hospitalization medical function supports the maneuver commander by synchronizing the integration of hospitalization into a layered depth approach rearward from the forward line of troops with less hospitalization assets forward and more going rearward to support the anticipated patient loads expected during large-scale combat operations. This sustains hospitalization over time and when enemy risk prevents or limits movement in one domain with a hospitalization plan that can sustain operations as they occur in depth. Hospitalization units create depth by establishing the hospitalization chain that includes joint forces, HN, and UAPs resulting in improved interoperability with multinational forces to the degree required by operation plans (OPLANs) and contingency operations. Medical leaders should be able to describe the depth they can achieve in terms of medical operational reach. *Operational reach* is the distance and duration across which a force can successfully employ military capabilities (JP 3-0). Medical leaders should clearly articulate hospitalization capabilities and limitations regarding friendly operations in the orders process and during rehearsals.

HOSPITALIZATION LINK TO THE ARMY IMPERATIVES

1-52. Imperatives are actions Army forces take to defeat enemy forces and achieve objectives at an acceptable cost. They are informed by the OE and the characteristics of the most capable threats Army forces can encounter. The Army imperatives include—

- See yourself, see the enemy, and understand the OE.
- Protect against constant observation and all forms of enemy contact.
- Own the electromagnetic spectrum.
- Create and exploit positions of physical, information, and human advantages in pursuit of decision dominance.
- Make initial contact with the sensors, unmanned systems, or the smallest element possible.
- Impose multiple dilemmas on the enemy.
- Anticipate, plan, and execute transitions.
- Designate, weight, and sustain the main effort.
- Consolidate gains continuously.
- Understand and manage the effects of operations on units and Soldiers.

1-53. Hospitalization leaders and planners should be familiar with the tenets of operations and imperatives. They should consider how the tenets and imperatives impact their units and how they impact the units they support when planning and executing hospitalization. Table 1-2 on page 13 lists the Army imperatives and includes how each applies to the hospitalization medical function.

Table 1-2. Hospitalization considerations for imperatives

Imperatives	*Hospitalization Considerations*
See yourself, see the enemy, and understand the operational environment.	• Describe environment impacts to hospitalization operations such as climate, elevation, and weather. • Analyze the operating environment and refine or update estimates. • Evaluate the threat and plan for ways to reduce risk such as including trenches and patient bunkers and using terrain to increase cover and concealment. • Reassess casualty estimates and adjust Role 3 hospital support as necessary. • Analyze the availability and distribution of hospitalization resources against operational requirements.
Protect against constant observation and all forms of enemy contact.	• Consider all forms of contact. • Consider observation and fields of fire, avenues of approach, and cover and concealment. • Understand impacts of terrain and weather. • Understand the enemy ability to detect and target electromagnetic signatures and develop methods to mitigate threat such as reducing transmissions and using alternate means to communicate. • Maintain redundant analog systems to sustain operations when digital systems are inoperable. • Apply discipline to all forms of contact to include social media and understand what is releasable to both unified action partners and the public.
Own the electromagnetic spectrum	• Use the lowest effective power settings for all equipment. • Use data-burst transmissions when reporting • Minimizing length and frequency of radio transmissions. • Move operational medicine command posts and formations.
Create and exploit positions of physical, information, and human advantage in pursuit of decision dominance.	• Maintain situational awareness and understanding of domains and dimension interrelationships that impact hospitalization. • Exploit the enemy's decision cycle to maximize the coordination of patient movement from Role 3 hospitals. • Support patient tracking and formal medical regulating to inform patient records. • Continue development of plans for predictive hospitalization capabilities.
Make initial contact with the sensors, unmanned systems, or the smallest element possible.	• Hospitalization course of action development. • Employ the smallest amount of hospitalization to maximize mobility and proximity Army Health System principles. • Anticipate emergency CLVIII resupply. • Sustain hospitalization proximity to extend operational reach. • Be prepared to support detainee operations.
Impose multiple dilemmas on the enemy.	• Return to duty as many Soldiers as possible. • Practice hospitalization operations and physical security. • Support hospitalization operational reach to extend close and deep operations.

Table 1-2. Hospitalization considerations for imperatives (continued)

Imperatives	• *Hospitalization Considerations*
Anticipate, plan, and execute transitions.	• Plan for and arrange hospitalization capabilities to support transitions. • Enable task organizations to anticipate phases of operations. • Understand and communicate hospitalization risks associated with transitions. • Synchronize hospitalization support for the potential of increased patient loads during transition. • Plan for contingencies such as cross-boundary patient movement to adjacent Role 3 hospitals. • Reprioritize hospitalization support to maintain momentum. • Plan for reconstitution from theater and corps Role 3 hospitals to the division Role 3 hospital.
Designate, weight, and sustain the main effort.	• Strategically and tactically position hospitalization resources within the theater, corps, and division echelons. • Be prepared to provide emergency CLVIII resupply on an area basis.
Consolidate gains continuously.	• Plan for and assess hospitalization units and resources to support transition to the next phase. • Identify any CLVIII shortages and replenish supplies. • Reconstitute hospital personnel and fill shortages. • Identify requirements to provide hospitalization support within occupied territories. • Identify unified action partner and host nation support requirements and synchronize with the hospitalization support plan.
Understand and manage the effects of operations on units and leaders.	• Understand and manage the effects of fatigue, stress, and psychological stress of operating during large-scale combat operations. • Maintain disciplined, well-trained, and physically fit Soldiers to sustain morale and cohesiveness during extended operations. • Conduct periodic health and behavioral assessments of hospital staff. • Ensure hospitalization units have resources to replace bloodied work areas, medical equipment, and uniforms of medical personnel. • Plan to rotate patient loads of hospitalization units and personnel, when possible, for rest and recuperation. • Support moral, welfare, and recreation activities for patients and hospital staff.

THREATS

1-54. An OE has several threats that consist of enemies, adversaries, neutrals, and hybrid threats (force that combines traditional, irregular, disruptive, or catastrophic capabilities) and includes health threats. 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. For more information on the OE, refer to FM 3-0.

1-55. 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 5-0 and FM 6-0.

HEALTH THREAT

1-56. The operational medicine views threats from two perspectives: the general threat and the health threat. Although the operational medicine's primary concern is that of the health threat, the general threat should also be fully considered as it influences the—

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

1-57. 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 employment of chemical, biological, radiological, and nuclear (CBRN) weapons (to include weapons of mass destruction that have the potential to affect the short- or long-term health [including psychological impact] of personnel). The health threat faced by deployed United States forces is depicted in Appendix B.

ENEMY THREAT

1-58. Warfare has changed significantly from World War II (WWII) through recent operations in Iraq and Afghanistan to observations in Eastern Europe. While the lethality of WWII was unprecedented and every domain contested, the conflicts afterwards were lower intensity where U.S. Forces enjoyed freedom of movement due to air and maritime dominance. Casualties of recent operations in Iraq and Afghanistan had high survival rates, but this was against armed violent extremist organizations. Modern armed conflict with a peer will more closely resemble WWII with highly lethal modern weapon systems and contested in all domains. Modern artillery ammunition is five to ten times more lethal than those used in WWII. The cyberspace domain has the potential to compromise or interrupt Army information systems. Due to the lethality of these weapon systems, protection should be a constant consideration in any AHS support plan where it is regularly reassessed and improved whenever possible.

1-59. The proliferation of drones and electromagnetic warfare in recent years creates a constant risk of observation and attack. As a result, hospitalization units should continually be vigilant and consider noise, light, sound, and electromagnetic signature discipline. While dispersion is a technique, hospitalization units are not designed to execute dispersion without degrading or losing capability and should seek other methods of cover and concealment.

1-60. The threat to hospitalization units varies by intensity and location of the conflict. A European conflict will most likely be contiguous and involve large frontages, massed artillery, and contested airspace. In an Indo-Pacific conflict, it will likely be non-contiguous in nature and involve long lines of communication which will require flexible and creative solutions for hospitalization operations. A conflict in a maritime environment will be United States Navy led and require a greater integration of joint capabilities to support Army hospitalization. Intratheater aeromedical evacuation may not be possible until patients are moved further away from enemy areas, resulting in Role 3 hospitals conducting delayed evacuation operations.

1-61. Deployed hospitalization units will be exposed to multiple threats including:

- Drones (unmanned vehicles and robotics).
- Indirect fire (artillery, rockets, and missiles).
- Electromagnetic warfare.
- Armored combat vehicles.
- Aircraft (fixed and rotary-wing).
- Weapons of mass destruction (CBRN).
- Unconventional warfare.

1-62. Long-range fire systems such as tube artillery and multiple rocket launchers will threaten hospitalization units in the division, corps, and theater echelons. This places hospitalization units at risk of being targeted outright or most likely by proximity. Drones provide a threat of observation and attack to hospitalization units. Even if a drone does not initially engage an ambulance, it may follow it back to the Role 3 hospital to locate and fire on other targets co-located in the vicinity, such as command posts and sustainment assets. Hospitalization units should also have a primary, alternate, contingency, and emergency (PACE) plan for communication and data management. This provides redundant means of communicating

and managing information to include analog. Analog systems may be necessary when an enemy targets electromagnetic signatures because analog systems have a reduced or no electromagnetic signature.

SECTION V – HOSPITALIZATION ASPECTS OF THE ARMY HEALTH SYSTEM PRINCIPLES

1-63. The principles of the AHS are the enduring tenets upon which the delivery of health care in a deployed environment is founded. The principles guide medical planners in developing operation plans which are effective, efficient, flexible, and executable. Army Health System plans are designed to support the tactical commander's scheme of maneuver while still retaining a focus on Soldiers' medical needs.

1-64. The AHS principles apply across all medical functions and are synchronized by medical commanders through the medical command and control (C2) medical function that is nested within the C2 system. Surgeon sections at echelon provide close coordination, synchronization, and integration of all medical assets through medical technical channels (medical control). The AHS principles are conformity, proximity, flexibility, mobility, continuity, and control. These six principles reinforce and complement the Army tenets of operations and imperatives. This section describes the AHS principles through the lens of hospitalization. For a complete discussion of how the AHS principles relate to the overall FHP and HSS missions, refer to FM 4-02.

CONFORMITY

1-65. Conformity with the tactical plan is the most basic element for effectively providing operational medicine support. Medical planners should be involved early in the planning process to ensure continued operational medicine in support of the Army's strategic contexts. Once the plan is established it should be rehearsed with the forces it supports.

1-66. Hospitalization support may vary depending on the mission. Medical leaders and planners should be involved throughout the planning process to ensure that hospitalization assets are properly arrayed across the OE in support of the maneuver commander's intent and vision. Hospitalization units at echelon are employed based on the orders process, PAR, and the basis of allocation (BOA). Hospital leaders and planners should understand that hospitalization planning varies depending on the types of supported operations. Role 3 hospitals are scalable and tailorable and can be expanded and augmented to provide the necessary support. When operations do not require movement, a Role 3 hospital may be configured to its maximum capability. When supporting operations, such as those in large-scale combat, require the ability to quickly relocate Role 3 hospitals, a supporting Role 3 hospital may be utilized with a reduced footprint to support patient care and planned movement. During large-scale combat operations against a peer threat, Role 3 hospitals within the OE may be overwhelmed due to high casualty rates and increased consumption of resources. Supported maneuver planners and hospital planners prioritize support through the orders process.

PROXIMITY

1-67. Proximity is to provide operational medicine support to WII Soldiers at the right time and the right place and to keep morbidity and mortality to a minimum. Operational medicine resources should be arrayed near supported forces, but not close enough to impede ongoing operations.

1-68. To support the operational commander's plan, it is essential that hospitalization units are positioned to rapidly receive, treat, stabilize, and coordinate for the evacuation of patients. Medical planners have not been required to plan for hospitalization at this scale and scope since Desert Shield and Desert Storm. Given the higher casualty rates and additional difficulties associated with large-scale combat operations, establishing a Role 3 hospital in the right place to best support maneuver forces is critical. For more information on large-scale combat operations, refer to FM 3-0.

FLEXIBILITY

1-69. Flexibility is being prepared to, and empowered to, shift operational medicine resources to meet changing requirements. Changes in plans or operations make flexibility in operational medicine planning and execution essential.

1-70. Hospital leaders should ensure that the unit can rapidly transition from supporting one level of violence to another across the range of military operations or to simultaneously support more than one type of operation, such as offensive, defensive, or stability tasks. Hospitalization design supports the ability to adapt to conditions or type of operation by providing medical commanders the capability to manage hospitalization services through its modular units. Through modularity, the hospital commander exercises C2 authority to effectively manage limited hospitalization resources so that they benefit the greatest number of Soldiers in their assigned AO. (See chapter 2 for more information on hospitalization modularity).

MOBILITY

1-71. Mobility ensures that operational medicine assets remain in supporting distance to maneuver forces. Operational medicine support should be continually responsive to shifting medical requirements in an OE. Operational medicine C2 headquarters continually assess and forecast unit movement and redeployment.

1-72. This is difficult for the Role 3 hospital leaders and planners. It takes time to setup (complex) and tear-down (decomplex) a Role 3 hospital, time that may not meet the supported maneuver plans or orders sequence of events. With limited organic transportation assets, the Role 3 hospital should be innovative in its use of organic and sustainment transportation platforms to meet the maneuver commander's intent. For instance, in support of offensive operations, instead of setting up a 120-bed Role 3 hospital in the division, the hospital commander may choose to discuss assuming risk with the supporting medical brigade (support) (MEDBDE) or division surgeon section and only set up 88 beds and leave a field hospital (32-bed) packed up and ready to jump forward in support of the division. This technique maximizes the use of organic transportation platforms and greatly reduces dependency on sustainment transportation. Role 3 hospital leaders and planners should always consider the limited mobility of the Role 3 hospital in the military decision-making process and develop courses of action to mitigate this gap. See Appendix B for amounts of transportation support required to move each hospital element.

CONTINUITY

1-73. Continuity in care and treatment is achieved by moving the patient through progressive, phased roles of care, extending from the POI to the CONUS support base. *Continuity of care* refers to an attempt to maintain the role of care during movement at least equal to the care provided at the preceding facility (FM 4-02). Each type of operational medicine unit contributes a measured, logical increment in care appropriate to its location and capabilities.

1-74. The Role 3 hospital constitutes the third measured, logical increment in care appropriate to its location and capabilities. In recent operations, lower casualty rates, availability of rotary-wing air ambulances, and other factors often enabled a patient to be evacuated from the POI directly to a supporting Role 3 hospital. However, during large-scale combat operations higher casualty rates, extended distances, indirect fire, drones, and patient condition will necessitate that patients receive care at each role of care to maintain their physiologic status and enhance the chances of survival. Lack of air superiority, use of unmanned aerial vehicles, and enemy activities will make patient movement (PM) much more difficult. This may require that those patients stay at a MTF for longer periods of time than previously required. A major consideration and an emerging concern in future conflicts is providing prolonged care at any location along the continuum of care (POI through Role 3) when evacuation is delayed. The Army's employment in support of large-scale combat operations is likely to be complex and challenging and widely differs from recent conflicts. The hospital commander and leaders working with the supporting MEDBDE, with a depth of medical knowledge, the ability to anticipate follow-on medical treatment requirements, and an assessment of the availability of specialized medical resources can adjust the patient flow to ensure each Soldier receives the care required to optimize patient outcomes.

CONTROL

1-75. Control is required to ensure that scarce AHS resources are efficiently employed and support the operational plan. It also ensures that the scope and quality of medical treatment meets professional standards, policies, and U.S. and international law. Within the operational area, the most qualified individuals to orchestrate this complex support are the medical commanders and surgeons assigned to surgeon sections at echelon, due to their training, professional knowledge, education, and experience.

1-76. For hospitalization, control also ensures that the scope and quality of medical care meets professional standards, policies, and U.S. and international law. With the current task organization of the Role 3 hospital center, there are dependencies between the headquarters and headquarters detachment (HHD), hospital center, and the field hospital (32-bed) in terms of control. With limited C2 infrastructure within these two units, the most reliable course of action is for the HHD hospital center to concentrate on up and out and future operations while the field hospital (32-bed) focuses on "down and in" and current operations.

1-77. The hospital center can conduct split-based operations when task organized with two field hospitals (32-bed). It is the hospital center commander's decision, based on their knowledge of the units and the capabilities of their leaders, on which field hospital would forward deploy and what command and support relationship would be generated in the orders process.

SECTION VI – ELIGIBILITY OF CARE DETERMINATION

1-78. Across the range of military operations, one of the most pressing questions is, who is eligible for care in a U.S. Army-established MTF, and the extent of care authorized. Numerous categories of personnel seek care in U. S. facilities that are in austere areas where the host-nation civilian medical infrastructure is not sufficient to provide adequate care. A determination of eligibility and whether reimbursement for services is required is made at the highest level possible and in conjunction with the supporting staff judge advocate. Each operation is unique and the authorization for care is based on appropriate U. S. and international law, Department of Defense (DOD) directives, DOD instructions, Army regulations, doctrine, and standard operating procedures. Other factors impacting the determination of eligibility are command guidance, practical humanitarian and medical ethics considerations, availability of United States medical assets (in relationship to the threat faced by the force), and the potential training opportunities for medical forces.

1-79. Through the orders process, hospital commanders should ensure that the eligibility for care matrix is widely disseminated throughout the command and that all medical personnel are aware of the process and how to obtain additional guidance, if required. Eligibility of care determination may impact the Role 3 hospital and effect several hospital planning considerations. Hospital leaders should look for the eligibility of care determination in Annex F (Sustainment), Appendix 3 (HSS) and plan accordingly. See Appendix B of this publication for an example of an eligibility for medical and dental care support matrix for inclusion in operations plans and orders. For more information on eligibility of care determination, refer to FM 4-02.

SECTION VII – GENEVA CONVENTIONS AND MEDICAL ETHICS

1-80. The U.S. is party to numerous conventions and treaties pertinent to warfare on land. Collectively, these treaties are often referred to as the Geneva and Hague Conventions. Whereas the Hague Conventions concern the methods and means of warfare, the Geneva Conventions concern the victims of war or armed conflict. The Geneva Conventions are four separate international treaties, signed in 1949. The Conventions are very detailed and contain many provisions, which are tied directly to the medical mission. These Conventions are entitled—

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

1-81. The Geneva and Hague Conventions and medical ethics play a part in the hospitalization medical function. The employment of Role 3 hospitals requires knowledge not only of military field craft but also what else can impact patient care operations. This section discusses the Law of Land Warfare, Geneva Conventions, and medical ethics.

LAW OF ARMED CONFLICT

1-82. The conduct of armed hostilities on land is regulated by the Law of Armed Conflict. For additional information on the Law of Land Warfare, refer to DOD Directive 2310.01E and FM 6-27. This body of law is inspired by the desire to diminish the evils of war by—

- Protecting both combatants and noncombatants from unnecessary suffering.
- Safeguarding certain fundamental human rights of persons who fall into the hands of the enemy, particularly detainees, the wounded and sick, and civilians.
- Facilitating the restoration of peace.

1-83. The Law of Armed Conflict places limits on the exercise of a belligerent's power in the interest of furthering that desire (diminishing the evils of war) and it requires that belligerents—

- Refrain from employing any kind or degree of violence which is not actually necessary for military purposes.
- Conduct hostilities with regard for the principles of humanity and chivalry.

GENEVA AND HAGUE CONVENTIONS

1-84. The Geneva and Hague Conventions details the treatment and protection of patients, regardless of their status as a combatant, civilian, enemy, or friendly. They also discuss provisions afforded medical personnel and units.

1-85. 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. For more information on compliance with the Geneva Conventions and medical ethics, refer to FM 4-02 and Appendix C of this publication. Role 3 hospital leaders should refer to and keep on hand Appendix C of this publication, FM 6-27, and the detailed FM 4-02 information on the medical aspects of the Geneva and Hague Conventions. The main topics in FM 4-02 include:

- Protection of the wounded and sick.
- Protection and care.
- Enemy wounded and sick.
  - Search for and collection of patients.
  - Assistance of the civilian population.
  - Enemy civilian wounded and sick.
- Medical repatriation.
- Protection and identification of medical personnel.
  - Protection.
  - Specific cases.
  - Identification cards and armbands.
- Protection and identification of medical units, establishments, buildings, materiel, and medical transports.
  - Protection from intentional attack.
  - Protection when falling into the hands of the enemy.
  - Identification.
  - Loss of protection of medical establishments and units.
  - Acts harmful to the enemy.
  - Warning and time limit.
  - Use of smoke and obscurants.
- Conditions not depriving medical units and establishments of protection.
  - Acts.
  - Defense of medical units and self-defense by medical personnel.
  - Guarding medical units.
  - Arms and ammunition taken from the wounded.
  - Personnel and materiel of the veterinary corps.
  - Care of civilian wounded and sick.
- The 1977 protocols to the Geneva Conventions.

- Compliance With the Geneva Conventions.
- Medical care for retained and detained personnel.
- Violations and consequences.

MEDICAL ETHICS

1-86. Health care personnel are well-trained in and guided by the ethics of their professional calling. This training and ethical principles, coupled with the requirements of international law as it pertains to the treatment of detainees, and civilians during conflict will ensure the ethical treatment of all sick and wounded personnel.

1-87. Health care personnel engaged in a professional provider-patient treatment relationship with detainees shall not participate in detainee-related activities for purposes other than health care. Role 3 hospital leaders should see and keep on hand Appendix C of this publication. For detailed information on medical ethics, refer to FM 4-02.

Chapter 2

Hospitalization Organizations

The hospital center provides Role 3 essential care within the theater evacuation policy to either return the patient to duty or stabilize the patient for evacuation to a Role 4 MTF outside the AO. The hospital center's assigned medical personnel, facilities, equipment, and materials provide the requisite capabilities to render significant preventive and curative health care. These highly robust services encompass primary inpatient and outpatient care; emergency care; and enhanced medical, surgical, and ancillary capabilities. The modular design of the hospital center provides the capability to tailor and deploy capabilities as elements or multiple individual capabilities that provide incrementally increased hospitalization services. This chapter provides information on the mission, assignment and dependencies, capabilities and functions, and employment of these units.

SECTION I – INTRODUCTION TO THE HOSPITAL CENTER

2-1. The hospital center is a Role 3 MTF comprised of the HHD, hospital center and four modular units with inherent capabilities that deliver mission-specific medical and surgical support. This modular design can provide a task-organized Role 3 hospital with a minimum of 32-beds up to a maximum of 240 beds within an assigned AO. The characteristics of each hospital element and their collective competencies provide the ability to accommodate split-based operations with both surgical and medical support. Commanders can task-organize these hospitalization elements to support the range of military operations. This matches the anticipated mix of required capabilities and medical specialties to the population supported and the clinical challenges they present. The hospital center, in combination with varying augmentation detachments, coupled with attached specialty detachments and teams provides the medical and staffing capabilities to provide the appropriate Role 3 medical care suitable to supporting the range of military operations across all strategic contexts within the competition continuum.

2-2. The Role 3 hospital center is designed to support the Army's requirement to conduct a mix of offensive, defensive, stability tasks, and defense support of civil authorities simultaneously in a variety of scenarios. Under the C2 of the HHD, hospital center, there are four distinct modular elements, with associated TOEs, that comprise the Role 3 hospital. These elements are:

- The field hospital (32-bed) (up to two).
- The hospital augmentation detachment (surgical 24-bed), referred to as surgical augmentation detachment (SAD).
- The hospital augmentation detachment (medical 32-bed), referred to as medical augmentation detachment (MAD).
- The hospital augmentation detachment (intermediate care ward [ICW]) 60-bed) (up to two), referred to as intermediate care ward augmentation detachment (ICWAD).

Note. The organizational structures and positions presented in this publication are established in tables of organization and equipment. These tables were current at the time this publication was released. The organization of these units is subject to change to comply with manpower requirements criteria and other force design updates. These organizations are also subject to change at the unit level to meet wartime requirements and changes are reflected in the units' modified table of organization and equipment.

2-3. When referring to the entire organization (or at its minimum configuration, the HHD, hospital center and one field hospital [32-bed]), it is called the hospital center. The field hospital is simply the 32-bed subordinate unit that is one piece of the hospital center.

2-4. The modular design of the Role 3 hospital center provides the ability to tailor and deploy capabilities as modules or multiple individual capabilities that provide incrementally increased hospitalization services. The hospital center may be augmented by one or more hospital augmentation detachments, medical detachments, or hospital augmentation teams. The Role 3 hospital center may also be task organized to enhance its capabilities to provide FHP and HSS within its assigned AO. The current hospital center organizational construct provides a more agile, deployable, versatile, and medically capable hospital.

2-5. The HHD, hospital center and field hospital (32-bed) are the core and lowest denominator of the hospital organization. The field hospital (32-bed) represents the smallest unit that can provide the complete clinical capabilities of a Role 3 MTF. This company-sized unit is designed to be self-supporting and expandable. The HHD, hospital center and field hospital (32-bed) are designed as the first increment to be deployed in support of an expeditionary force. The HHD, hospital center and field hospital (32-bed) can be expanded incrementally to a maximum 240-bed capability (see Appendix B for figures that depict various Role 3 configurations).

2-6. The HHD, hospital center can provide C2 for one or two field hospitals (32-bed) in separate locations without augmentation. The field hospital (32-bed) is not designed to be split into two parts but rather two field hospitals (32-bed) can establish operations in two separate locations while task-organized under one HHD, hospital center. Combinations of the modular units within the hospitalization capability would be suitable to support across the range of military operations and to fully integrate operations with joint, HN, and UAPs.

Note. Planning and providing hospitalization present unique challenges to the hospital commander, medical planner, and staff. Based on a myriad of mission variables, it may be necessary, but not by design, to employ the field hospital (32-bed) independent from the HHD, hospital center for a short period of time. Simultaneous or near-simultaneous employment of the two organizations is ideal for C2, consultative services, and utilization of equipment resources. If mission variables or resource constraints prohibit the simultaneous employment of these organizations, the field hospital (32-bed) can employ and provide Role 3 hospitalization without the HHD, hospital center. The field hospital (32-bed) would be task-organized to the senior medical commander, such as the MEDBDE, until the HHD, hospital center is deployed to the AO.

2-7. Specific capabilities of the Role 3 hospital center include:

- Computed tomography equipment.
- Microbiology laboratory services.
- Surgical support.
- Critical care provider (intensivist) to manage patients in the ICU.
- Internal medicine provider (hospitalist) to manage patients in the ICW.
- Emergency providers in the triage, preoperative care, and EMT section.
- Minimal inpatient behavioral health capabilities and behavioral health consultation and education.
- Increased capacity of ICU beds.

2-8. Improvements in versatility and agility:

- Command and control and enhanced communications capability to conduct split based operations indefinitely without augmentation.
- Augmentation detachments with specific clinical specialties can be adapted to better support the mission.

2-9. Deployability and adaptability:

- Initial hospitalization capabilities are provided by a HHD, hospital center and field hospital (32-bed).
- The HHD, hospital center, field hospital (32-bed), and all hospital augmentation detachments have separate modular TOE structures.
- Each hospital augmentation detachment is designed to expand the field hospital's (32-bed) medical or surgical capacities.

- Commanders can tailor the medical forces to support the OE, matching the anticipated mix of capabilities and medical specialties to the population supported and the clinical challenges they present.
- The modular composition of the hospital center makes planning for required medical capabilities much easier; planners can design and take only the field hospital (32-bed) and medical augmentation detachments that contain the medical treatment or surgical capabilities needed as determined in mission analysis. However, once the hospital is established and operating in the AO, it becomes very difficult to unplug an augmentation detachment and plug it back into to another hospital elsewhere. The augmentation detachments become an integral part of the hospital operations (personnel, equipment, and functions), and disconnecting one of them will be a challenge, but not impossible.
- The hospitalization capability can be built up or scaled down based on the tactical situation.

Note. The remainder of this chapter provides a brief description of the duties and responsibilities of each type of hospitalization unit's sections and teams. Any additional section or team duties and responsibilities should be annotated in the unit TACSOP. The unit TACSOP should also provide detailed duties and responsibilities for each assigned officer, warrant officer, enlisted, or civilian operating within the Role 3 hospital.

SECTION II – HEADQUARTERS AND HEADQUARTERS DETACHMENT, HOSPITAL CENTER

2-10. This section provides an overall discussion of the HHD, hospital center's mission, assignments and dependencies, capabilities and functions, and employment. Any additions should be annotated in the unit TACSOP.

MISSION

2-11. The HHD, hospital center provides C2 to assigned and attached units engaged in the operational support of Role 3 hospitalization and outpatient services for all classes of patients within an AO. This is normally up to two field hospitals (32-bed) and requisite augmentation detachments all in one or more locations.

ASSIGNMENT AND DEPENDENCIES

2-12. The unit assignment and dependencies depict who the HHD, hospital center is assigned to and the units it is dependent upon to execute its mission. If there are additional dependencies, then the HHD hospital center should add them to their TACSOP along with how they work with each unit they are dependent upon.

ASSIGNMENT

2-13. The HHD, hospital center is assigned to the headquarters and headquarters company, MEDBDE or senior medical headquarters within the AO. Assignment and task organization through the orders process can change rapidly and often.

DEPENDENCIES

2-14. This unit is dependent upon appropriate elements within the AO for religious; legal; AHS support; finance; personnel and administrative services; logistical services, mortuary affairs; security of enemy prisoners of war (EPW), retained and detained patients, and United States (U.S.) prisoner patients. This unit is also dependent upon the following:

- The composite supply company for Class I, II, III, and VII supplies and to provide potable water and unclassified map support.
- Headquarters and headquarters company (HHC) and special troops battalion (STB), sustainment brigade or HHC and STB, division sustainment brigade for transportation services when a single lift of the unit is required, vehicle recovery operations, transportation and equipping for RTD personnel, to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care.

- The engineer construction company to construct medical shelter platforms.
- The prime power battalion to generate long-term hard-stand electrical power and provide advice and technical assistance for electrical power and distribution and for relief of tactical generators as required for the hospital.
- The signal company, expeditionary signal battalion to provide automatic switching services for both analog and digital voice and data traffic, tactical multichannel high-capacity transmission systems, and multichannel satellite ground terminals.
- The casualty liaison team for accurate and timely casualty information, facilitates real-time casualty information for commanders, and assists in the management of casualty operations as needed.
- The field hospital (32-bed), nutrition care section for feeding of hospital staff.
- The MEDBDE S-3 PM branch or U.S. Air Force aeromedical evacuation liaison team for coordinating intratheater and intertheater PM to higher roles of care, generally out of the AO.
- The medical company, (ground ambulance) to provide ground MEDEVAC support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and emergency movement of medical personnel to support the AHS mission.
- The medical company (air ambulance) to provide intratheater aeromedical evacuation support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The MEDLOG company for Class VIII support and augmentation of personnel for medical device maintenance, as required.
- The following companies, detachments, and teams are needed to increase AHS hospitalization capabilities and capacity as required:
  - Field hospital (32-bed).
  - SAD (24-bed).
  - MAD (32-bed).
  - ICWAD (60-bed).
  - Hospital augmentation team (head and neck).
  - Medical detachment (forward resuscitative and surgical) (to include the airborne FRSD).
  - Medical detachment (minimal care).
  - Medical detachment (prolonged care augmentation).
  - The medical detachment (veterinary services) for food protection and veterinary public health support.

Note. The food protection mission includes food safety; food defense; quality assurance inspection and surveillance activities associated with rations, food, bottled water, and ice manufacturing sources; and food and water risk assessments. The veterinary public health reduces transmission of zoonotic diseases; monitors animals as sentinels of threats to humans by investigating unexplained animal deaths; and investigates potential rabies exposures to humans. The potential of foodborne disease, the threat of CBRN contamination of subsistence, and the need to assess and mitigate the zoonotic disease threat requires a veterinary presence.

CAPABILITIES AND FUNCTIONS

2-15. The unit capabilities and functions describe what the HHD, hospital center is capable of accomplishing. Functions are descriptions of what each subcomponent of the HHD, hospital center is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the HHD hospital center should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

2-16. This unit provides the following:

- Command and control of organic and attached elements, to include AHS support planning, policies, and support operations within the hospital's AO.
- Information to commanders and staff on the health of the command and on health aspects affecting the unit's mission or AHS support.

- Command and control for split-based operations as required.
- Augmentation to the field hospital, (32-bed) motor maintenance section.
- Additional maintenance capabilities of the field hospital (32-bed).
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

2-17. The HHD, hospital center has seven sections that comprise the headquarters element. They are as follows:

- Command Section.
- Personnel Section (S-1).
- Intelligence/Operations Section (S-2/S-3).
- Logistics Section (S-4).
- Signal Section (S-6).
- Clinical Operations Section.
- Transportation Section.

2-18. The following information describes the functions of each element and requirements specified in the section I of the TOE. Figure 2-1 depicts the task organization of the HHD, hospital center.

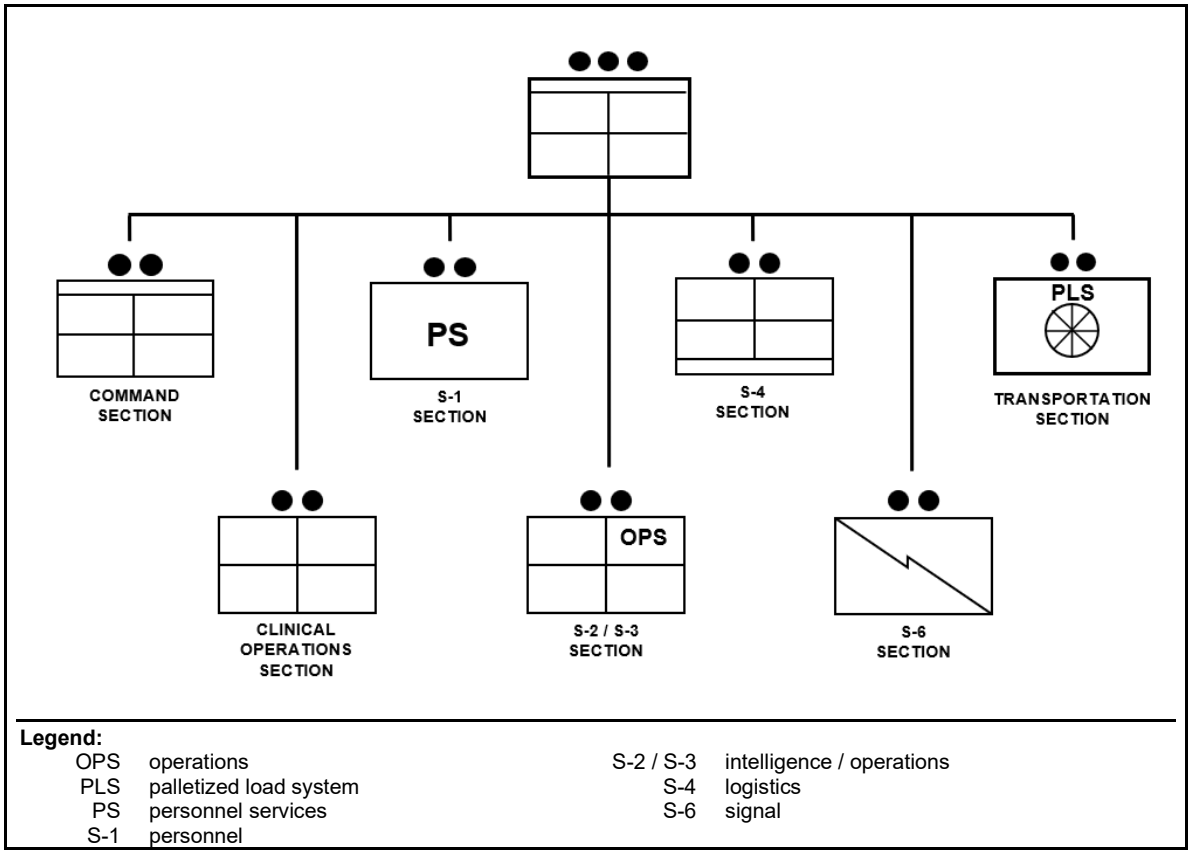


Figure 2-1. Task organization of the headquarters and headquarters detachment, hospital center

Command Section

2-19. The command section provides C2 for elements of the hospital and coordination for hospitalization support within the hospital's AO. The command section provides advice to supported tactical commanders on the health of the command and provides medical surveillance activities within the AO. Command and staff personnel provide supervision and coordination of administrative, logistics, operations, medical, surgical, nursing, and hospital ministry services.

Clinical Operations Section

2-20. The clinical operations section—

- Consists of the principal consultants and technical advisors for the command in medical, surgical, and nursing care.
- Manages medical provider credentialing and administration as well as clinical care quality assurance, treatment protocol management, and AHS support and training.
- Establishes patient management policies, and ensures facilities and resources are adequate to treat all types of disease and injury, to include CBRN patients.
- Provides staff supervision of clinical activities throughout the hospital to include proper staffing of the subordinate hospital elements.
- Plans and coordinates health services clinical resources within the hospital.
- Plans and coordinates clinical medical resources to provide effective and consistent treatment of WII personnel to RTD or evacuate from the AO.
- Monitors clinical policies, protocols, and procedures pertaining to the medical and surgical treatment of WII personnel IAW Army Regulation (AR) 40-68.
- Plans and monitors the provision of direct patient care within assigned or attached hospital elements.
- Monitors the management of clinical specialties including professional medical provider rotation policies, if applicable.
- Evaluates and interprets medical statistical data that includes hospitalization and bed reports.

S-1 Section

2-21. The S-1 section—

- Provides human resources services for the hospital center and subordinate elements attached and assigned, to include personnel administration, mail distribution, and awards and decorations.
- Maintains absence and rest and recuperation schedules.
- Coordinates for morale, welfare, and recreation support.
- Prepares and manages correspondence for the command.
- Maintains unit personnel readiness status.
- Ensures personnel and deployment manifests are maintained and coordinates for replacements as needed.
- Coordinates with the senior medical unit's protocol office and public affairs officer for protocol and public affairs support.

S-2/S-3 Section

2-22. The S-2/S-3 section—

- Plans and coordinates medical resources to provide effective and consistent treatment of WII personnel to return to full duty or evacuate from the AO.
- Plans and coordinates health services resources within the hospital.
- Assists in maintaining situational understanding by coordinating for current medical intelligence and the common operating picture with the MEDBDE and theater medical command (TMC) S-2 (G-2)/S-3 (G-3).
- Maintains tactical situational understanding through coordination with supported units.
- Assists in coordinating AHS training requirements and execution within the hospital.

- Develops mass casualty (MASCAL) plans and determines the medical workload requirements based upon the casualty estimate within the hospital's AO.
- Develops, synchronizes, and coordinates hospitalization support within the AO to support the commander's decisions, planning guidance, and intent.
- Forwards medical statistical data, including hospitalization and bed reports, in accordance with established procedures.
- Provides support to the commander for plans, intelligence, operations, security, deployment, redeployment, and relocation of the hospital center and subordinate elements.

S-4 Section

2-23. The S-4 section—

- Monitors MEDLOG services within the hospital and supported units.
- Monitors health services and FHP resources within the hospital.
- Determines MEDLOG requirements and priorities.
- Adapts medical materiel sets (MMS) for a specific scenario to include adding items based on forecasted types of injuries.
- Monitors the requisition, procurement, storage, maintenance, distribution, management, and documentation of Class VIII materiel and special hospital items of subsistence required for patient care.
- Provides planning, programming, coordinating, and supervision of all activities concerning the internal logistical operations of the hospital center and subordinate elements.
- Maintains and manages the hospital's property book.
- Coordinates for external logistical support requirements, such as equipment transportation support, inbound resupply tracking, and contracts.
- Coordinates for resupply of all classes of supply.
- Monitors medical device and nonmedical equipment status, reporting, and maintenance programs.

S-6 Section

2-24. The S-6 section—

- Provides for all aspects of automation and communications-electronics for the command.
- Determines signal requirements, capabilities, and operations.
- Provides advice and consultation on medical information systems used within the hospital center and subordinate elements.
- Ensures internal and external communication connectivity within the hospital and subordinate elements.
- Establishes and maintains internal information systems, servers, devices, and telemedicine systems.

Transportation Section

2-25. The transportation section—

- Provides organic transportation required for mission accomplishment of the field hospital (32-bed) (this is only vehicles and maintenance personnel, the drivers come from the HHD, hospital center subordinate units).
- Provides transportation for the HHD, hospital center.
- Coordinates for external transportation support when the mission demands exceed organic assets.

EMPLOYMENT

2-26. The HHD, hospital center deploys and provides C2 to assigned and attached units engaged in the operational support of hospitalization and outpatient services for all classes of patients within its assigned AO. The hospital center also provides medical C2 of FHP and HSS to ensure they are included in the

command's running estimates, operation orders (OPORD), and OPLAN. The HHD, hospital center deploys with the first field hospital (32-bed) and concentrates on up and out C2 of the hospital center while the field hospital concentrates on ("down and in") C2 of the field hospital and any attached augmentation elements.

2-27. Based on the orders process, the HHD, hospital center may be collocated with two field hospitals at one location. In a split-based configuration, the HHD, hospital center will remain with one field hospital and may provide C2 to the second forward deployed field hospital if required. See Chapter 3 and Appendix B. of this publication for more information on the employment and planning of the HHD, hospital center.

Note. It is important to note that the HHD, hospital center is designed to be able to provide C2 of two field hospitals (32-bed) in two separate locations, not one field hospital (32-bed) split in two locations. The field hospital (32-bed) is not designed to be split.

Basis of Allocation

2-28. The BOA for an HHD, hospital center is one per a maximum of two field hospitals (32-bed), and hospital augmentation detachments, up to a total of 240 beds. If medical planners determine that one HHD, hospital center cannot adequately provide C2 of two separated field hospitals (32-bed) due to distance and insufficient communications, a second HHD, hospital center should be requested, METT-TC (I) dependent.

Mobility

2-29. The unit requires 35 percent of its TOE equipment to be transported in a single lift with its authorized organic vehicles. The unit's organic transportation section has the vehicles required to transport 35 percent of the field hospital (32-bed) and is responsible for transportation support of hospital augmentation detachments (with personnel augmentation from the supported units to drive the vehicles).

SECTION III – FIELD HOSPITAL (32-BED)

2-30. This section provides a discussion of the field hospital (32-bed), mission, assignments and dependencies, capabilities and functions, and employment. Any additions should be annotated in the unit TACSOP.

MISSION

2-31. The field hospital (32-bed) provides Role 3 hospitalization and outpatient services for all classes of patients within an assigned AO.

ASSIGNMENT AND DEPENDENCIES

2-32. Assignment means units or personnel assigned relatively permanently to a command or mission, where that organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel.

2-33. A dependency is a limitation or capability gap a unit may have that results in it being dependent on another organization to mitigate that limitation or gap. The Section I may list dependencies, but the unit TACSOP should add additional dependencies as required and to describe in detail the nature of each dependency and how these units will support the field hospital (32-bed).

Assignment

2-34. The field hospital (32-bed) is assigned to the HHD, hospital center.

Dependencies

2-35. This unit is dependent upon the following:

- Appropriate elements within the AO for religious; legal; AHS support; finance; personnel and administrative and logistical services; mortuary affairs; security of EPW, retained and detained patients, and U.S. prisoner patients.

- The composite supply company for Class I, II, III, and VII supplies and to provide potable water and unclassified map support.
- HHC and STB, sustainment brigade or HHC and STB, division sustainment brigade for transportation services when a single lift of the unit is required, vehicle recovery operations, transportation and equipping for RTD personnel, to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care.
- The engineer construction company to construct medical shelter platforms.
- The prime power battalion to generate electrical power and to provide advice and technical assistance for electrical power and distribution.
- The expeditionary signal company to provide automatic switching services for both analog and digital voice and data traffic, tactical multichannel high-capacity transmission systems, and multichannel satellite ground terminals.
- The casualty liaison team for accurate and timely casualty information, facilitates real-time casualty information for commanders, and assists in the management of casualty operations as needed.
- The MEDBDE S-3 PM branch or U.S. Air Force aeromedical evacuation liaison team for coordinating intratheater and intertheater PM to higher roles of care, generally out of the AO.
- The medical company, (ground ambulance) to provide ground PM support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The medical company (air ambulance) to provide intratheater aeromedical evacuation support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The MEDLOG company for Class VIII support. Augmentation of personnel for medical device maintenance, as required.
- The following companies, detachments, and teams are needed to increase AHS hospitalization capabilities and capacity as required:
  - Field hospital (32-bed).
  - SAD (24-bed).
  - MAD (32-bed).
  - ICWAD (60-bed).
  - Hospital augmentation team (head and neck).
  - Medical detachment, forward resuscitative and surgical (to include the airborne FRSD).
  - Medical detachment, minimal care.
  - Medical detachment (PCAD).
- The medical detachment (veterinary services) for food protection and veterinary public health support.

CAPABILITIES AND FUNCTIONS

2-36. The unit capabilities and functions depict what the field hospital (32-bed) is capable of accomplishing. Functions are descriptions of what each subcomponent of the field hospital (32-bed) is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the field hospital (32-bed) should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

2-37. This unit provides—

- Company-level C2 of organic elements to include AHS support, planning, policies, and support operations within the hospital's AO and can operate up to 72 hours with its initial basic load of supply.
- Information to commanders and their staff on the health of their command and on health aspects affecting the unit's missions.

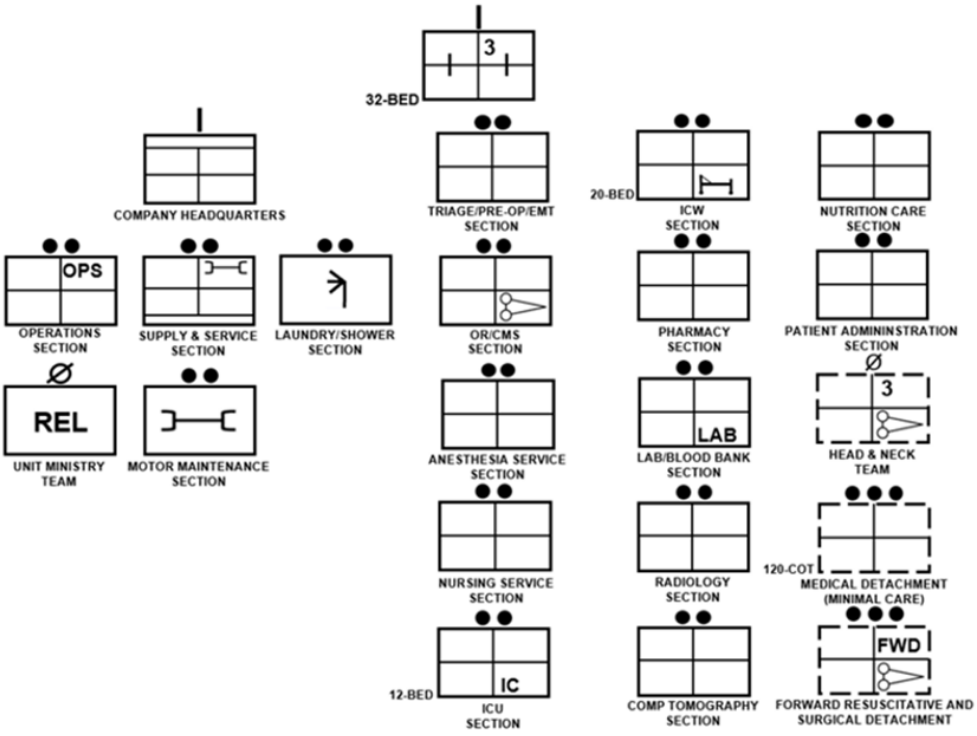
- Hospitalization for up to 32 patients consisting of one ward providing intensive nursing care for up to 12 patients and one ward providing intermediate nursing care for up to 20 patients.
- Surgical capability, including general, orthopedic, and obstetrics-gynecological based on operating room (OR) tables capable of providing 36 OR hours per day.
- Emergency treatment to receive, triage, and resuscitate patients to include not only military personnel but eligible DOD Civilian employees and contractors, local nationals, detainees, and EPWs/retained/unprivileged enemy belligerents personnel as required.
- Army Health System support for organic personnel (unit-level support).
- Pharmacy, clinical laboratory, blood banking, radiology/CT, and nutrition care service for patients and organic staff.
- Personnel administration, patient administration, MEDLOG, preventive medicine (PVNTMED), and laundry services for direct patient-related linen and shower facilities for ambulatory patients, and direct patient care providers.
- Coordinates with the U.S. Air Force Theater Patient Movement Requirements Center for medical regulating and movement of patients from the AO.
- Technical advice and consultation on medical information systems and programs such as the operational medicine information system-Army (OMIS-A) comprised of the Theater Medical Information Program-Joint (TMIP-J) software suite.
- All work areas and assemblages with three days of supply within identified MMS.
- Field maintenance support to all elements of the hospital and all attached and assigned units.
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

2-38. The field hospital (32-bed) has 19 elements that comprise the company. They are:

- Command Section.
- Company Headquarters.
- Operations Section.
- Patient Administration Section.
- Nutrition Care Section.
- Supply and Services Section.
- Motor Maintenance Section.
- Laundry and Shower Section.
- Triage, Preoperative, Emergency Medical Treatment Section.
- Operating Room and Central Materiel Services Section.
- Anesthesia Service Section.
- Nursing Service Section.
- Intensive Care Unit.
- Intermediate Care Ward.
- Pharmacy Section.
- Laboratory Services and Blood Bank Section.
- Radiology Section.
- Computed Tomography Section.
- Hospital Ministry Team.

2-39. The following information describes the functions of each element and requirements specified in the section I of the TOE. This also describes the task and purpose of each section. Figure 2-2 on page 31 depicts the task organization of the field hospital (32-bed).



Legend:

CMS	centralized material services	ICU	intensive care unit
COMP	computerized	ICW	intensive care ward
EMT	emergency medical treatment	OPS	operations
FWD	forward	OR	operating room
LAB	laboratory	PRE-OP	pre-operative
IC	intensive care	REL	religion

Figure 2-2. Task organization of the field hospital (32-bed)

Command Section

2-40. The command section—

- Provides internal C2 and management of the field hospital (32-bed) and attached hospital augmentation detachments and teams.
- Provides administrative support, prepares unit plans for movement, routine and medical support operations, and mission-related task organization.
- Focuses the field hospital (32-bed) staff on the internal operations of the hospital center and augmentation detachments as well as current and short-range operational planning ("down and in"), when collocated with the HHD, hospital center.

Note. The field hospital (32-bed) is a company level organization with limited C2 assets. As a course of action and mission dependent, after complexing the hospital, at the field hospital commander's discretion, it is common practice to dual hat the senior practical nurse noncommissioned officer (NCO) as the field hospital (32-bed) senior enlisted leader.

Company Headquarters

2-41. The company headquarters—

- Provides C2 of the field hospital (32-bed) and attached hospital augmentation detachment and teams.
- Supervises and coordinates the operations and administrative services.
- Provides logistical functions for the hospital elements and attached units, to include general and medical supplies; environmental control of patient treatment areas; power and vehicle maintenance; fuel distribution; and equipment records and repair parts management.
- Provides laundry services for direct patient care providers and patients and coordinates through the higher headquarters for all other laundry support.
- Provides shower services for patients and medical providers.

Operations Section

2-42. The operations section—

- Focuses on current and short-range operational planning when collocated with the HHD, hospital center.
- Plans and coordinates medical resources to provide effective and consistent treatment of WII personnel involving return to full duty or evacuation from the hospital's AO.
- Plans and coordinates AHS resources within the hospital's AO.
- Compiles medical statistical data that includes hospitalization and bed reports and forwards them in accordance with established procedures.
- Assists in maintaining situational understanding by coordinating for current AHS support information with medical operations of the next higher, adjacent, and subordinate headquarters.
- Assists in coordinating AHS training requirements and execution within the hospital.
- Develops MASCAL plans and determines the medical workload requirements based upon the casualty estimate within the hospital's AO.
- Develops, synchronizes, and coordinates AHS within the hospital's AO to support the commander's decisions, planning guidance, and intent.
- Coordinates AHS training requirements and execution.
- Provides support to the commander for plans, intelligence, operations, security, deployment, redeployment, and relocation of the field hospital (32-bed) and subordinate elements.
- Provides for the installation, operation, management, and maintenance of the information management systems.
- Establishes and maintains secure and nonsecure local area network.
- Manages the joint operational medicine information systems applications and OMIS-A.
- Ensures automated logistics interfaces in all sections of the hospital and attached units.

Patient Administration Section

2-43. Historically, formal medical regulating starts at Role 3 where more than one patient administrative personnel are first assigned withing the continuum of care. Informal medical regulating is normally conducted at Role 1 and Role 2. For additional information on medical regulating refer to ATP 4-02.2. The Role 3 patient administration section—

- Secures and accounts for patients' valuables.
- Prepares patient-statistical reports for the hospital and coordinates reporting to the appropriate C2 structure.
- Coordinates requests for patient evacuation and provides reports to higher headquarters.
- For patients that have died of wounds received in action at the Role 3 hospital, coordinates with patient's unit and mortuary affairs for prompt removal of remains and personal effects.
- Provides patient administration services statistical data to the operations section.

Note. A casualty liaison team from a division sustainment brigade human resources company or combat sustainment support battalion human resources company may be collocated with the Role 3 hospital to assist in the management of casualty operations, provide casualty information (reporting and tracking), and facilitate real-time casualty information for commanders through the ability to provide updated information from supported sites such as the Role 3 hospital.

Nutrition Care Section

2-44. See Chapter 3 for more detailed discussion about nutrition care operations in a Role 3 hospital. The nutrition care section—

- Supervises, manages, and controls all nutrition care operations within the hospital.
- Provides food service management, including meal preparation, modified diet food preparation, and distribution of food and beverages to patients and staff.
- Provides the full complement of medical nutrition therapy to inpatients and outpatients.
- Serves as the command advisor on health and nutrition for patients and MTF staff.
- May serve as dietician in general support of units in the hospital's AO.
- Provides nutrition care services for patients, including EPWs or retained/detained personnel while ensuring culturally appropriate foods are provided according to command guidance.
- Provides nutrition care services logistics and statistical data to the nursing services section.

Supply and Service Section

2-45. See Chapter 3 for more detailed discussion about logistics management in a Role 3 hospital. Supply and services section provides logistical functions for the hospital and attached units to include:

- Medical materiel.
- Medical maintenance management.
- Blood management (in coordination with clinical laboratory).
- Water distribution.
- Waste disposal.
- Environmental control of patient treatment areas.
- Temporary hospital morgue (only for those that expired while under care at the MTF).
- Provides supply and services logistics requirements and statistical data to the operations section.

Motor Maintenance Section

2-46. Motor maintenance section performs field maintenance functions on—

- Organic wheeled vehicles.
- Power generation equipment.
- CBRN equipment.
- Environmental control units.

Laundry and Shower Section

2-47. Laundry and shower section—

- Provides laundry services for direct patient care providers and patients.
- Coordinates with supporting element for all other laundry support not directly related to patient care.
- Provides shower services for patients and medical providers.
- Provides laundry and shower logistics requirements and statistical data to the nursing services section.

Triage, Preoperative, Emergency Medical Treatment Section

2-48. Triage, preoperative, EMT section—

- Provides for the receiving, triaging, and stabilizing of incoming patients as follows:
- Receives patients.
- Assesses their medical condition.
- Provides EMT services.
- Transfers the patient to the appropriate functional area within the hospital.
- Monitors patient conditions and prepares those requiring immediate surgery for the OR.
- Communicates directly with incoming evacuation platforms (ground and air) to provide en route consultation and to ensure readiness to receive incoming patients.
- Provides on-site and remote consultation services via digital means when available.
- Provides medical and statistical data to the nursing services section.

Operating Room and Central Materiel Services Section

2-49. The OR and central materiel services (CMS) section—

- Provides supervision of the OR and CMS.
- Schedules nursing staff, prepares and maintains the OR and CMS, and maintains surgical and nursing standards within these areas.
- Works with the anesthesia section to perform initial surgery for battle and nonbattle injuries and follow-on surgery for patients received from other MTFs.
- Provides general, orthopedic, and obstetrics-gynecological surgical services with two OR tables for a total of 36 hours of table time per day. An additional surgical table is available in the radiology section and can be utilized to increase the total OR capacity, if necessary.
- Projects OR schedules and determines OR surgical backlog in terms of projected hours to complete each surgery and numbers of patients.
- Provides records and reports to the commander. The staff reads from and inputs to the automated clinical record using available information systems.
- Functions with the SAD (24-bed), OR, and CMS as one hospital center surgical service when consolidated.
- Provides OR/CMS services surgical and statistical data to the nursing services section.

Anesthesia Service Section

2-50. The anesthesia service section—

- Provides anesthesia and respiratory services for the hospital.
- Provides supervision and administration of anesthetics to patients undergoing surgery.
- Provides clinical validation of medical equipment and supply sets for each mission.
- Reviews the readiness of clinical portion of the tactical standard operating procedures (TACSOP).
- Reviews the proficiency of area of concentration 66F and military occupational specialty 68V to execute the mission of the section.
- Coordinates with and assists the EMT section in trauma care services. When consolidated, it functions with the hospital augmentation detachment (surgical 24-bed), anesthesia, and respiratory services as one service.
- Provides anesthesia services medical and statistical data to the nursing services section.

Nursing Service Section

2-51. Nursing service section—

- Manages daily operations of nursing services throughout the hospital.
- Compiles daily surgical and medical statistical data, prepares hospitalization and bed reports, and forwards to operations section (Chapter 1Appendix A).
- Compiles daily surgical, medical, ancillary services, and clinical logistics requirements and forward to the operations section.

- Provides scheduling and supervision of nursing staff to include preparation and coordination of duty rosters, emergency MASCAL plans, and contingency staffing.
- Plans, organizes, executes, and directs nursing care practices and activities of the hospital.
- Ensures training and readiness for deployment of nurses and other medical personnel as required.
- Provides clinical validation of medical devices and medical material sets of the hospital for each mission, the readiness of clinical portion of the TACSOP, and the proficiency of nurse officers and enlisted nursing personnel to execute the mission of the hospital.
- Plans, coordinates, and supervises the layout and design of the clinical aspects of the physical facilities.

Intensive Care Unit

2-52. Intensive care unit—

- Provides one 12-bed ICU for critically WII patients requiring the most intensive monitoring and care.
- Manages surgical and medical patients, adult and pediatric, whose physiological status is so disrupted that they require immediate and continuous medical and nursing care.
- Provides preoperative stabilization area and postanesthesia recovery area for patients either awaiting surgery or recovering from surgery.
- Provides daily ICU logistics requirements and bed status to the nursing services section.

Note. Of the 12 beds, only 10 are resourced with all the requisite capabilities of a fully functioning ICU bed (nursing staff, intravenous pumps, and ventilators). The remaining two beds can be and are typically used as transition beds for patients awaiting evacuation, for patients that are too complex for the ICW, or simply as overflow beds.

Intermediate Care Ward

2-53. Intermediate care ward—

- Provides one 20-bed ICW.
- Manages surgical or medical patients whose conditions require observation for real or potential life-threatening disease or injury. The acuity of care may range from those requiring constant observation to those patients able to ambulate and begin to assume responsibility for their care.
- Provides ICW daily logistics requirements and bed status to the nursing services section.

Note. The level of care and acuity of the ICW patients may fluctuate and, although not routine, ICW patients may require monitoring devices and ventilator support.

Pharmacy Section

2-54. Pharmacy section—

- Develops, coordinates, and executes programs and policies ensuring safe and appropriate medication use within the hospital.
- Develops, maintains, and publishes the approved hospital formulary; screens all medication orders for drug-drug, drug-nutrient interactions, or medication allergies.
- Monitors individual medication therapies for safe and appropriate disease state management and recommends alternative drug regimens to meet situational requirements.
- Monitors and reports on all medication-related patient safety problems.
- Provides consultation services to medical and MEDLOG staff.
- Monitors and enforces hospital-wide quality control of pharmaceuticals.
- Provides outpatient pharmacy services.
- Provides inpatient pharmacy services, including sterile products preparation services.
- Provides drug and medication information services and provides bulk drug and controlled substance distribution support for patient care areas.

- Provides direct patient care services and provides pharmacy supply and support services.
- Provides and exercises appropriate control and accountability for all controlled substances and rosters with signature documentation for all individuals approved by the hospital commander to prescribe, receive, order, or distribute controlled drugs.
- Provides outpatient medications for the required number of days to complete therapy or the supply of medications required for MEDEVAC out of the AO.
- Provides pharmacy daily logistics requirements and pharmaceutical statistical data to the nursing services section.

Laboratory Services and Blood Bank Section

2-55. Laboratory services and blood bank section—

- Performs analytical procedures in hematology, urinalysis, chemistry, blood banking, and limited basic microbiology screening. Analytical microbiology capability is available with attachment of the hospital augmentation detachment (surgical 24-bed) and the hospital augmentation detachment (medical 32-bed).
- Coordinates with environmental laboratories for data regarding potential toxic exposures from the operating environment.
- Provides blood banking services, including all routine blood grouping and typing, abbreviated cross-matching procedures, emergency blood collection, and blood inventory management.
- Provides storage and issues liquid and frozen blood products.
- Coordinates with the supply and services section and directly with the medical detachment (blood support) and with the blood program office for blood supply and resupply requirements.
- Provides automated records and reports of current and projected blood status to the commander and higher headquarters.
- Provides daily laboratory and blood bank daily logistics requirements and statistical data to the nursing services section.

Radiology Section

2-56. Radiology section provides radiological services to all areas of the hospital and operates on a 24-hour basis. This includes triage and pre-operative. The radiology section will provide daily radiology logistics requirements and statistical data to the nursing services section.

Computerized Tomography Section

2-57. Computerized tomography (CT) section—

- Provides radiological services to all areas of the hospital.
- Provides the ability to support CT services for all areas of the hospital and operates on a 24-hour basis.
- Provides daily CT logistics requirements and statistical data to the nursing services section.

Hospital Ministry Team

2-58. Hospital ministry team, provides religious support and pastoral care ministry for patients, assigned staff, and subordinate organizations.

EMPLOYMENT

2-59. The field hospital (32-bed) is designed to be employed with the HHD, hospital center. It provides ("down and in") C2 for the field hospital (32-bed) and attached augmentation elements concentrated on Role 3 hospitalization and outpatient services in an assigned AO.

2-60. Based on the orders process, two field hospitals may be collocated in one location under the C2 of an HHD, hospital center. When employed in a split-based configuration one field hospital will remain with the HHD, hospital center while the other field hospital may be forward deployed to another location, as required. See Chapter 3 and Appendix B for more information on the employment and planning of the field hospital (32-bed).

BASIS OF ALLOCATION

2-61. Hospital commanders and staffs use the BOA below with the PAR and orders process when planning for the field hospital (32-bed):

- Phase I-III major combat operations (MCO) for brigade and echelons above brigade (EAB) hospital direct admissions per 100 occupied beds:
  - 1.11 field hospitals/100 wounded in action (WIA).
  - 0.66 field hospitals/100 disease and non-battle injury (DNBI).
  - 0.39 field hospitals/100 nerve.
  - 0.82 field hospitals/100 blister.
- For theater direct admissions per 100 occupied beds:
  - 0.82 field hospitals/100 WIA.
  - 0.45 field hospitals/100 DNBI.
  - 0.48 field hospitals/100 nerve.
  - 0.47 field hospitals/100 blister.
- For theater hospital transfer admissions per 100 occupied beds:
  - 0.77 field hospitals/100 WIA.
  - 0.31 field hospitals/100 DNBI.
  - 0.93 field hospitals/100 nerve.
  - 0.13 field hospitals/100 blister.
- For theater hospital transfer admissions with skip:
  - 0.69 field hospitals/100 WIA.
  - 0.21 field hospitals/100 DNBI.
  - 0.92 field hospitals/100 nerve.
  - 0.92 field hospitals/100 blister.
- Phase IV (Stabilize) Apply MCO rule for U.S. supported forces and add for directed support for HN PAR at one field hospital (32-bed) per 50,000.
- Phase V (Enable Civil Authority) BOA adjustments will be based on roles of care directed and PAR supported.

Note. See Appendix B of this publication for additional information referencing the unit's BOA.

MOBILITY

2-62. This unit requires 35 percent of its TOE equipment to be transported in a single lift using authorized organic vehicles and HHD, hospital center transportation section vehicles driven by field hospital (32-bed) personnel.

SECTION IV – HOSPITAL AUGMENTATION DETACHMENT (SURGICAL 24-BED)

2-63. This section provides a discussion of the hospital augmentation detachment (24-bed) (referred to as SAD [24-bed] or SAD) mission, assignments and dependencies, capabilities and functions, and employment.

MISSION

2-64. The SAD provides augmentation to the capabilities of the field hospital (32-bed) with thoracic, urology, oral maxillofacial surgical capabilities, 24 additional ICU beds, outpatient services, and microbiology.

ASSIGNMENT AND DEPENDENCIES

2-65. See the field hospital (32-bed) section for descriptions of what an assignment and dependency mean. The SAD has many dependencies due to its task organization and mission.

2-66. The SAD in coordination with hospital center and field hospital (32-bed) leaders should build on the list of dependencies from the Section I and add additional dependencies in the unit TACSOP as required and describe in detail the nature of each dependency and how the units will support the SAD.

ASSIGNMENT

2-67. Assigned to the HHD, hospital center and further attached to the field hospital (32-bed). Once attached to the field hospital (32-bed), this unit loses much of its own autonomy and identity. It is intended to augment a Role 3 hospital that already possesses much of its capabilities and therefore, gets absorbed into the field hospital's (32-bed) medical and surgical structure.

DEPENDENCIES

2-68. This unit is dependent upon—

- Appropriate elements within AO for religious; legal; AHS support; finance; personnel; administrative and logistical services; mortuary affairs; security of EPWs, retained, and detained patients and U.S. prisoner patients, transportation services when a single lift of the unit is required; vehicle recovery operations; and transportation and equipping for RTD personnel (to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care).
- The composite supply company for Class I, II, III and VII supplies and to provide potable water and unclassified map support.
- Engineer assets to construct medical shelter platforms.
- The prime power battalion to generate electrical power and to provide advice and technical assistance for electrical power and distribution.
- The expeditionary signal company to provide automatic switching services for both analog and digital voice and data traffic, tactical multichannel high-capacity transmission systems, and multichannel satellite ground terminals.
- The casualty liaison team for accurate and timely casualty information, facilitates real-time casualty information for commanders, and assists in the management of casualty operations as needed.
- Field Hospital (32-Bed), for feeding of hospital staff and patients.
- The MEDBDE S-3 PM branch or U.S. Air Force aeromedical evacuation liaison team for coordinating intratheater and intertheater PM to higher roles of care, generally out of the AO.
- The medical company, (ground ambulance) to provide ground PM support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The medical company, (air ambulance) to provide intratheater aeromedical evacuation support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The MEDLOG company for Class VIII support. Augmentation of personnel for medical device maintenance, as required.

CAPABILITIES AND FUNCTIONS

2-69. The unit capabilities and functions depict what the SAD (24-bed) is capable of accomplishing. Functions are descriptions of what each subcomponent of the SAD (24-bed) is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the SAD (24-bed) should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

2-70. This SAD provides—

- Augmentation of surgical capability for thoracic, urology, and oral maxillofacial surgery based on two OR tables for a total of 36 operating table hours per day.
- Augmentation of hospitalization with up to 24 patients consisting of two wards providing intensive care nursing.
- Consultation and outpatient clinic services for patients referred from other MTFs.
- Behavioral health, public health nursing, and physical therapy services.
- Three-day supply of basic load within identified MMS in all work areas and deployed assemblages.
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

2-71. The SAD has seven elements that comprise the detachment. They are:

- Detachment Headquarters.
- Supply and Services Section.
- Operating Room and Central Materiel Services Section.
- Anesthesia Service Section.
- Intensive Care Units A and B.
- Specialty Clinics Section.
- Microbiology Section.

2-72. The SAD is designed to augment the field hospital (32-bed). The following information describes the functions of each element specified in the section I of the TOE. This also describes the task and purpose of each section. Figure 2-3 on page 40 depicts the task organization of the SAD.

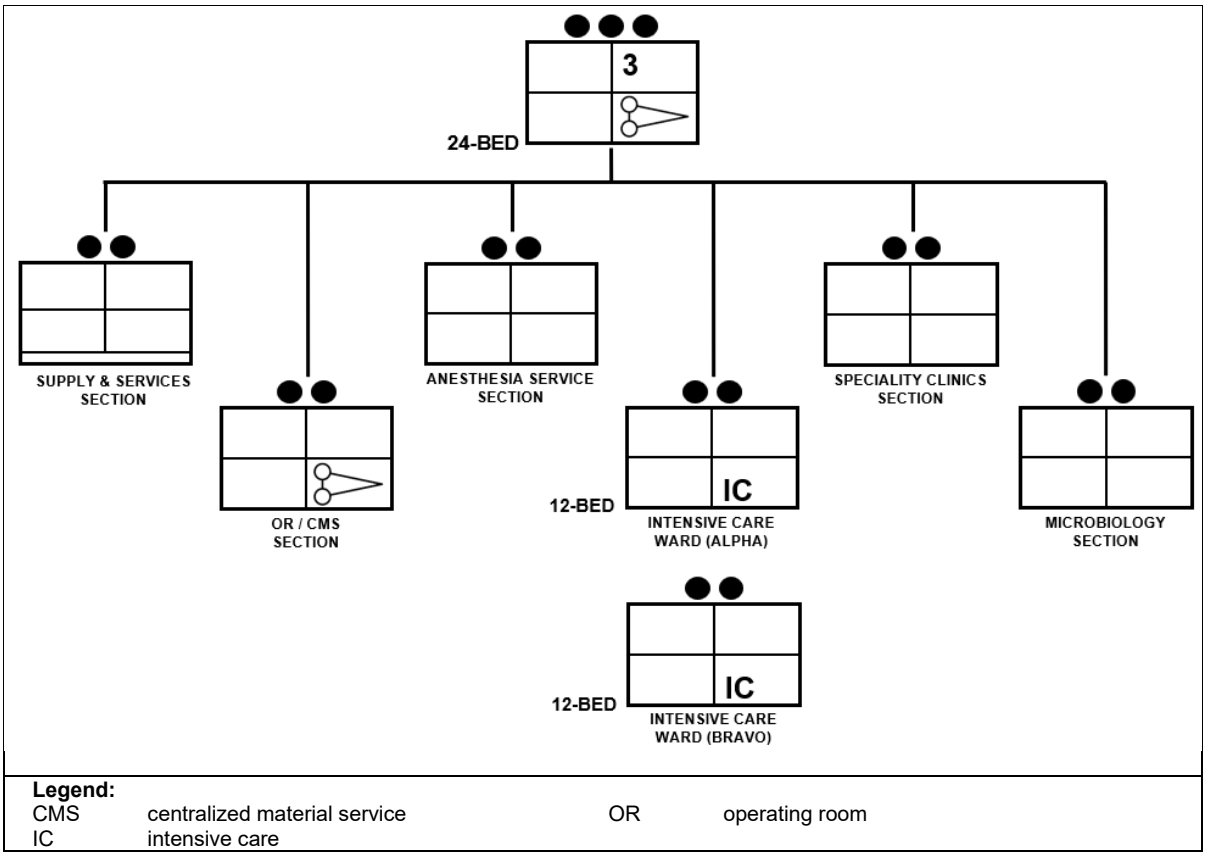


Figure 2-3. Task organization of the surgical augmentation detachment (24-bed)

Detachment Headquarters

2-73. The detachment headquarters may augment the HHD, hospital center or field hospital (32-bed) with additional personnel to assist with administrative oversight of personnel and equipment. However, the personnel in the detachment's headquarters primarily have patient care responsibilities once the detachment is integrated in the hospital operations and may not have the ability to focus on administrative or C2 responsibilities.

Supply and Service Section

2-74. The supply and services section augments the supply and services functions within the field hospital (32-bed) to increase the hospital logistics capabilities.

Operating Room and Central Materiel Services Section

2-75. The OR and CMS section—

- Provide resources to expand the operative capacities of the field hospital (32-bed) with two OR tables and staff for 36 operating table hours per day.
- Provide sterilization and operator maintenance of equipment.
- Provide augmentation to the field hospital (32-bed) OR and CMS and, when combined, function as one surgical service.

Anesthesia Service Section

2-76. Anesthesia service section—

- Incrementally expands the anesthesia and respiratory service capacities of the hospital.
- Provides supervision and administration of anesthetics to patients undergoing surgery.
- Provides augmentation to the field hospital (32-bed) OR and CMS and, when combined, function as one service.

Intensive Care Unit

2-77. Intensive care unit alpha—

- Incrementally expands the capacity of the hospital to care for critically WII patients.
- Provides nursing care for those patients who require close observation and vital sign monitoring, complex nursing care, and mechanical respiratory assistance.
- Serves as preoperative stabilization and postanesthesia recovery area.

2-78. Intensive care unit bravo—

- Incrementally expands the capacity of the hospital to care for critically WII patients.
- Provides nursing care for those patients who require close observation and vital sign monitoring, complex nursing care, and mechanical respiratory assistance.
- Serves as preoperative stabilization and postanesthesia recovery area.

Specialty Clinics Section

2-79. Specialty clinics section provides—

- Ambulatory care expansion capabilities of the field hospital (32-bed) to primary care, family practice, and behavioral health.
- Patient care and family medicine consultation services, evaluation and treatment of dermatological and gynecological diseases, injuries, disorders, orthopedic and physical therapy services.
- Outpatient behavioral health and inpatient behavioral health consultation and education services.
- Obstetrics-gynecology clinic with the basic medical supplies and equipment necessary to evaluate, diagnose, and clinically manage routine patient complaints related to the female reproductive system.
- Orthopedic clinic with the basic medical supplies and equipment necessary to evaluate, diagnose and clinically manage musculoskeletal conditions, to include mobile cast capability.
- Supplies and equipment to conduct primary care (sick call) operations and comprehensive routine medical care to include electrocardiographs in the medical services clinic.
- Physical-occupational clinic to evaluate and treat neuromusculoskeletal injuries, minor soft tissue wounds to include burn wound treatment, behavioral health, injury prevention, and human performance optimization.
- Provides daily specialty clinics logistics requirements and statistical data to the nursing services section.

Microbiology Section

2-80. Microbiology section provides additional capability to the field hospital (32-bed) to accomplish aerobic and anaerobic cultures, limited parasitology, and antibiotic susceptibility testing. This includes enhanced microbiology testing such as culture and sensitivity, gram staining, rapid infectious disease diagnostics and special staining. The microbiology section provides daily logistics requirements and statistical data to the nursing services section.

EMPLOYMENT

2-81. The SAD is not designed as a standalone unit and will be employed with and further attached and deployed within the field hospital (32-bed) assigned AO. The SAD provides additional surgical capabilities, 24 ICU beds, an outpatient clinic, and additional microbiology services to the field hospital (32-bed).

2-82. Based on the orders process, a SAD may be attached to a field hospital (32-bed). See Chapter 3 and Appendix B of this publication for more information on the employment and planning of the SAD (24-bed).

BASIS OF ALLOCATION

2-83. Hospital commanders, staffs, and medical planners use the BOA below with the PAR and orders process when planning for the SAD:

- Phase I-III MCO for brigade and EAB hospital direct admissions per 100 occupied beds:
  - 1.11 SADs/100 WIA.
  - 0.00 SADs/100 DNBI.
  - 0.20 SADs/100 nerve.
  - 0.00 SADs/100 blister.
- For theater direct admissions per 100 occupied beds:
  - 0.75 SADs/100 WIA.
  - 0.00 SADs/100 DNBI.
  - 0.00 SADs/100 nerve.
  - 0.00 SADs/100 blister.
- For theater hospital transfer admissions per 100 occupied beds:
  - 0.57 SADs/100 WIA.
  - 0.00 SADs/100 DNBI.
  - 0.00 SADs/100 nerve.
  - 0.00 SADs/100 blister.
- For theater hospital transfer admissions with skip:
  - 0.38 SADs/100 WIA.
  - 0.00 SADs/100 DNBI.
  - 0.00 SADs/100 nerve.
  - 0.00 SADs/100 blister.
- Phase IV (Stabilize) Apply MCO rule for U.S. supported forces. Model did not earn a SAD for HN PAR. All requirements for surgical were earned by the field hospital.
- Phase V (Enable Civil Authority) BOA adjustments will be based on roles of care directed and PAR supported.

Note. See Appendix B of this publication for additional information referencing the unit's BOA.

MOBILITY

2-84. This unit has no organic vehicles and relies on external assets for mobility.

SECTION V – HOSPITAL AUGMENTATION DETACHMENT (MEDICAL 32-BED)

2-85. This section provides a discussion of the hospital augmentation detachment (32-bed) (referred to as MAD [32-bed] or MAD) mission, assignments and dependencies, capabilities and functions, and employment.

MISSION

2-86. The MAD provides augmentation the field hospital (32-bed) with one additional ICU ward (12 beds), one ICW (20 beds), outpatient services, operational dental care, and additional microbiology capabilities within a field hospital (32-bed) assigned AO.

ASSIGNMENT AND DEPENDENCIES

2-87. See the field hospital (32-bed) section for descriptions of what an assignment and dependency mean. Like the SAD, the MAD has many dependencies due to its task organization and mission.

2-88. The MAD in coordination with hospital center and field hospital (32-bed) leaders should build on the list of dependencies from the Section I and add additional dependencies in the unit TACSOP as required and describe in detail the nature of each dependency and how these units will support the MAD.

ASSIGNMENT

2-89. The detachment is assigned to the HHD, hospital center and further attached to the field hospital (32-bed). Once attached to the field hospital (32-bed), this unit loses much of its own autonomy and identity. It is intended to augment a hospital that already possesses much of its capabilities and therefore, gets absorbed into the field hospital (32-bed) operations.

DEPENDENCIES

2-90. This unit is dependent upon the following:

- Appropriate elements within theater army for religious; legal; AHS support; finance; personnel; administrative and logistical services; mortuary affairs; security of EPW patients and U.S. prisoner patients; transportation services when a single lift of the unit is required; vehicle recovery operations; and transportation and equipping for RTD personnel (to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care).
- The composite supply company for Class I, II, III and VII supplies and to provide potable water and unclassified map support.
- The horizontal construction company to construct medical shelter platforms.
- The prime power battalion to generate electrical power and to provide advice and technical assistance for electrical power and distribution.
- The expeditionary signal company to provide automatic switching services for both analog and digital voice and data traffic, tactical multichannel high-capacity transmission systems, and multichannel satellite ground terminals.
- The casualty liaison team for accurate and timely casualty information, facilitates real-time casualty information for commanders, and assists in the management of casualty operations as needed.
- Field Hospital (32-Bed), for feeding of hospital staff and patients.
- The MEDBDE S-3 PM branch or U.S. Air Force aeromedical evacuation liaison team for coordinating intratheater and intertheater PM to higher roles of care, generally out of the AO.
- The medical company, (ground ambulance) to provide ground PM support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The medical company, (air ambulance) to provide intratheater aeromedical evacuation support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The MEDLOG company for Class VIII support. Augmentation of personnel for medical device maintenance, as required.

CAPABILITIES AND FUNCTIONS

2-91. The unit capabilities and functions depict what the MAD is capable of accomplishing. Functions are descriptions of what each subcomponent of the MAD is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the MAD should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

2-92. The MAD provides—

- Augmentation to the field hospital (32-bed) for up to 32 patients consisting of one ward providing intensive care nursing for up to 12 patients, requiring the most intensive monitoring and care, and one ward providing intermediate care nursing for up to 20 patients.
- Augmentation to the specialty clinic of the hospital with consultation and outpatient clinic services for patients referred from other MTFs.
- Augmentation to the specialty clinic with additional behavioral health, public health nursing, and physical therapy capabilities.
- Operational dental care consisting of emergency dental care and essential dental care designed to circumvent potential dental emergencies.
- Augmentation to the field hospital (32-bed) with additional personnel for patient administration, logistical, and nutritional care services.
- Three days of supply within all sections and MMS.
- Augmentation to the maintenance capabilities of the field hospital (32-bed).
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

2-93. The MAD has nine elements that comprise the detachment. They are:

- Detachment Headquarters.
- Nutrition Care Section.
- Supply and Services Section.
- Anesthesia Service Section.
- Intensive Care Unit.
- Intermediate Care Ward.
- Specialty Clinics Section.
- Dental Section.
- Microbiology Section.

2-94. The MAD is designed to augment the field hospital (32-bed). The following information describes the functions of each element specified in the section I of the TOE. This also describes the task and purpose of each section. Figure 2-4 on page 45 depicts the task organization of the MAD.

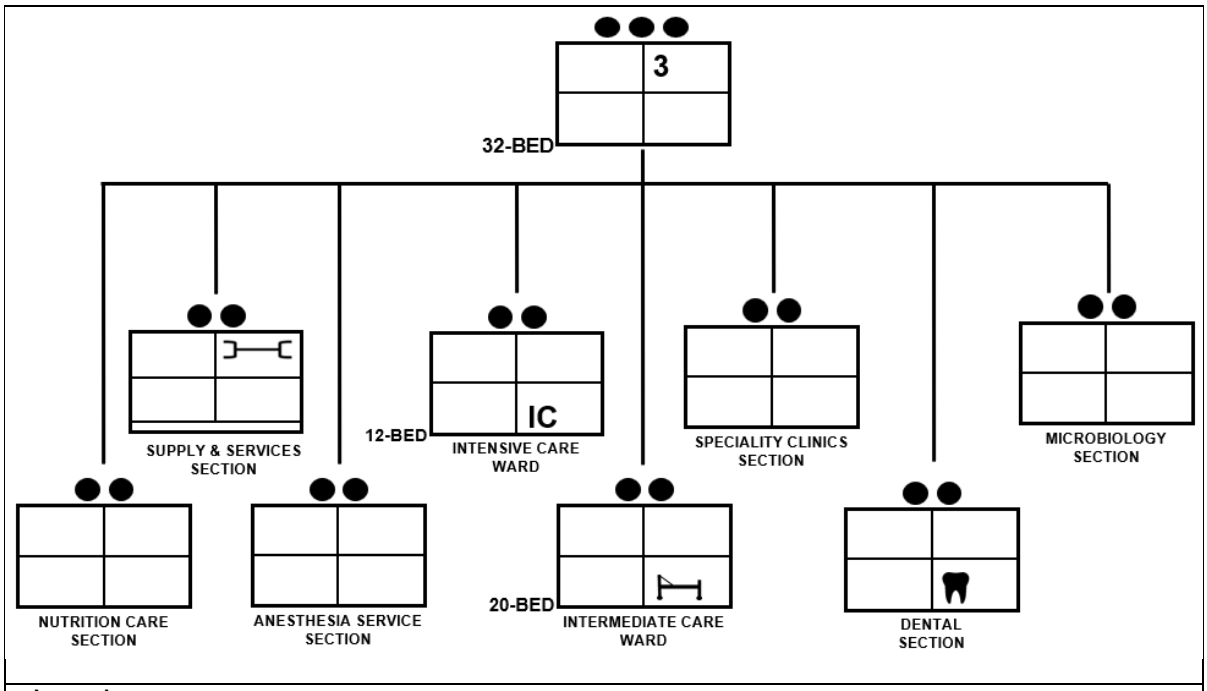


Figure 2-4. Task organization of the medical augmentation detachment (32-bed)

Detachment Headquarters

2-95. Detachment headquarters may augment the C2 capabilities of the HHD, hospital center or field hospital (32-bed) depending on patient population. The officer in charge and noncommissioned officer (NCO) in charge functions as the clinical head nurse and ward master when attached to field hospital (32-bed) and therefore, are primarily focused on patient care once integrated into the hospital.

Nutrition Care Section

2-96. The nutrition care section augments the field hospital's (32-bed) nutrition care section providing nutrition services. See the field hospital (32-bed) section of this publication for more information on the nutrition care section and Appendix B for nutrition care operations.

Supply and Services Section

2-97. The supply and services section augments the supply and services section of the field hospital (32-bed) with additional personnel to expand the logistical support capability and capacity.

Anesthesia Section

2-98. Anesthesia service section—

- Provides augmentation to the field hospital (32-bed) with additional personnel to incrementally expand the anesthesia and respiratory service capacities of the hospital.
- Provides supervision and administration of anesthetics to patients undergoing surgery.

Intensive Care Unit

2-99. The ICU—

- Provides augmentation to the field hospital (32-bed) with one 12 bed ICU providing for critically WII patients.
- Manages surgical and medical patients, adult and pediatric patients whose physiological state is so disrupted that they require immediate and continuous medical and nursing care.
- Provides preoperative stabilization area and postanesthesia recovery area for patients either awaiting surgery or recovering from surgery.

Intermediate Care Ward

2-100. The ICW augments the field hospital (32-bed) with one 20 bed ICW managing surgical or medical patients whose conditions require observation for real or potential life-threatening disease or injury. The acuity of care may range from those requiring constant observation to those patients able to ambulate and begin to assume responsibility for their care. The level of care and acuity of these patients may fluctuate depending on the intensity of their wounds, illness, or injury. Although not routine, ICW patients may require monitoring devices and ventilator support.

Specialty Clinics Section

2-101. The specialty clinics section provides—

- Ambulatory care expansion capabilities of the field hospital (32-bed) for primary care, family practice and behavioral health.
- Patient care and family medicine consultation services, evaluation and treatment of dermatological and gynecological diseases, injuries, disorders, orthopedic, and physical therapy services.
- Outpatient behavioral health and inpatient behavioral health consultation and education services.
- Obstetrics-gynecology clinic with the basic medical supplies and equipment necessary to evaluate, diagnose, and clinically manage routine patient complaints related to the female reproductive system.
- Orthopedic clinic with the basic medical supplies and equipment necessary to evaluate, diagnose, and clinically manage musculoskeletal conditions to include mobile cast capability.
- Supplies and equipment to conduct primary care (sick call) operations and comprehensive routine medical care to include electrocardiographs in the medical services clinic.
- Physical-occupational clinic to evaluate and treat neuromusculoskeletal injuries, minor soft tissue wounds to include burn wound treatment, behavioral health, injury prevention, and human performance optimization.

Dental Section

2-102. The dental section provides dental services and consultation for patients and staff. Dentist will augment the hospital with additional medical capabilities during MASCAL situations. The dental section provides daily dental logistics requirements and statistical data to the nursing services section.

Microbiology Section

2-103. The microbiology section augments the field hospital with additional microbiology capabilities.

EMPLOYMENT

2-104. The MAD is not designed as a standalone unit and will be employed with and further attached and deployed with the field hospital (32-bed) assigned AO. The MAD provides augmentation of additional intensive care (12 bed) and intermediate care (20 bed) wards, outpatient services, and additional microbiology capabilities to the field hospital (32-bed).

2-105. Based on the orders process, PAR, and BOA a MAD may be attached to a field hospital (32-bed). Normally the hospital center in support of a corps receives a MAD while mission dependent, the hospital

center in support of the division may have an attached MAD. See Chapter 3 and Appendix B of this publication for more information on the employment and planning of the MAD.

BASIS OF ALLOCATION

2-106. Medical commanders, staffs, and medical planners use the BOA below with the PAR and orders process when planning for the MAD:

- Phase I-III MCO for brigade and EAB hospital direct admissions per 100 occupied beds:
  - 0.50 MADs/100 WIA.
  - 0.58 MADs/100 DNBI.
  - 0.20 MADs/100 nerve.
  - 0.72 MADs/100 blister.
- For theater hospital direct admissions per 100 occupied beds:
  - 0.07 MADs/100 WIA.
  - 0.40 MADs/100 DNBI.
  - 0.42 MADs/100 nerve.
  - 0.41 MADs/100 blister.
- For theater hospital transfer admissions per 100 occupied beds:
  - 0.20 MADs/100 WIA.
  - 0.27 MADs/100 DNBI.
  - 0.81 MADs/100 nerve.
  - 0.12 MADs/100 blister.
- For theater hospital transfer admissions with skip:
  - 0.31 MADs/100 WIA.
  - 0.18 MADs/100 DNBI.
  - 0.81 MADs/100 nerve.
  - 0.81 MADs/100 blister.
- Phase IV (Stabilize) Apply MCO rule for U.S. supported forces and add for directed support for HN PAR at one (1) MAD per 57,000.
- Phase V (Enable Civil Authority) BOA adjustments will be based on roles of care directed and PAR supported.

Note. See Appendix B of this publication for additional information referencing the unit's BOA.

MOBILITY

2-107. This unit has no organic vehicles and relies on external assets for mobility.

SECTION VI – HOSPITAL AUGMENTATION DETACHMENT (INTERMEDIATE CARE WARD 60-BED)

2-108. This section provides a discussion of the hospital augmentation detachment intermediate care ward (60-bed) (referred to as ICWAD [60-bed] or ICWAD) mission, assignments and dependencies, capabilities and functions, and employment.

MISSION

2-109. The ICWAD provides augmentation the field hospital (32-bed) bed capacities with three 20 bed ICWs and provide intermediate nursing care and additional personnel to support nutrition and patient administration capabilities.

ASSIGNMENT AND DEPENDENCIES

2-110. See the field hospital (32-bed) section for descriptions of what an assignment and dependency mean. Like other hospital augmentation detachments, the ICWAD has many dependencies due to its task organization and mission.

2-111. The ICWAD in coordination with hospital center and field hospital (32-bed) leaders should build on the list of dependencies from the Section I and add additional dependencies in the unit TACSOP as required and describe in detail the nature of each dependency and how these units will support the ICWAD.

ASSIGNMENT

2-112. The ICWAD is assigned to the HHD, hospital center and further attached to the field hospital (32-bed). Once attached to the field hospital (32-bed), this unit loses much of its own autonomy and identity. It is intended to augment a hospital that already possesses much of its capabilities and therefore, gets absorbed into the field hospital (32-bed) operations.

DEPENDENCIES

2-113. The ICWAD is dependent upon the following:

- Appropriate elements within theater army for religious; legal; AHS support; finance; personnel; administrative and logistical services; mortuary affairs; security of EPW patients and U.S. prisoner patients; transportation services when single lift requirements exceed unit capability; vehicle recovery operations; and transportation and equipping for RTD personnel (to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care).
- The composite supply company for Class I, II, III and VII supplies and to provide potable water and unclassified map support.
- The horizontal construction company to construct medical shelter platforms.
- The prime power battalion to generate electrical power and to provide advice and technical assistance for electrical power and distribution.
- The expeditionary signal company to provide automatic switching services for both analog and digital voice and data traffic, tactical multichannel high-capacity transmission systems, and multichannel satellite ground terminals.
- The casualty liaison team for accurate and timely casualty information, facilitates real-time casualty information for commanders, and assists in the management of casualty operations as needed.
- Field Hospital (32-bed), for feeding of hospital staff and patients.
- The MEDBDE S-3 PM branch or U.S. Air Force aeromedical evacuation liaison team for coordinating intratheater and intertheater PM to higher roles of care, generally out of the AO.
- The medical company, (ground ambulance) to provide ground PM support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The medical company, (air ambulance) to provide intratheater aeromedical evacuation support to and between roles of care within the AO, transportation of emergency Class VIII resupply, and movement of medical personnel to support the AHS mission.
- The MEDLOG company for Class VIII support. Augmentation of personnel for medical device maintenance, as required.

CAPABILITIES AND FUNCTIONS

2-114. The unit capabilities and functions depict what the ICWAD is capable of accomplishing. Functions are descriptions of what each subcomponent of the ICWAD is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the ICWAD should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

2-115. The ICWAD provides—

- Hospitalization for up to 60 patients consisting of three wards providing intermediate nursing care.
- Augmentation to the patient administration and nutrition care sections.
- Limited maintenance on organic equipment.
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

2-116. The ICWAD has four elements that comprise the detachment. They are:

- Detachment Headquarters.
- Nutrition Care Section.
- Patient Administration Section.
- Intermediate Care Ward.

2-117. The ICWAD is designed to augment the field hospital (32-bed). The following information describes the functions of each element specified in the section I of the TOE. This also describes the task and purpose of each section. Figure 2-5 depicts the task organization of the ICWAD.

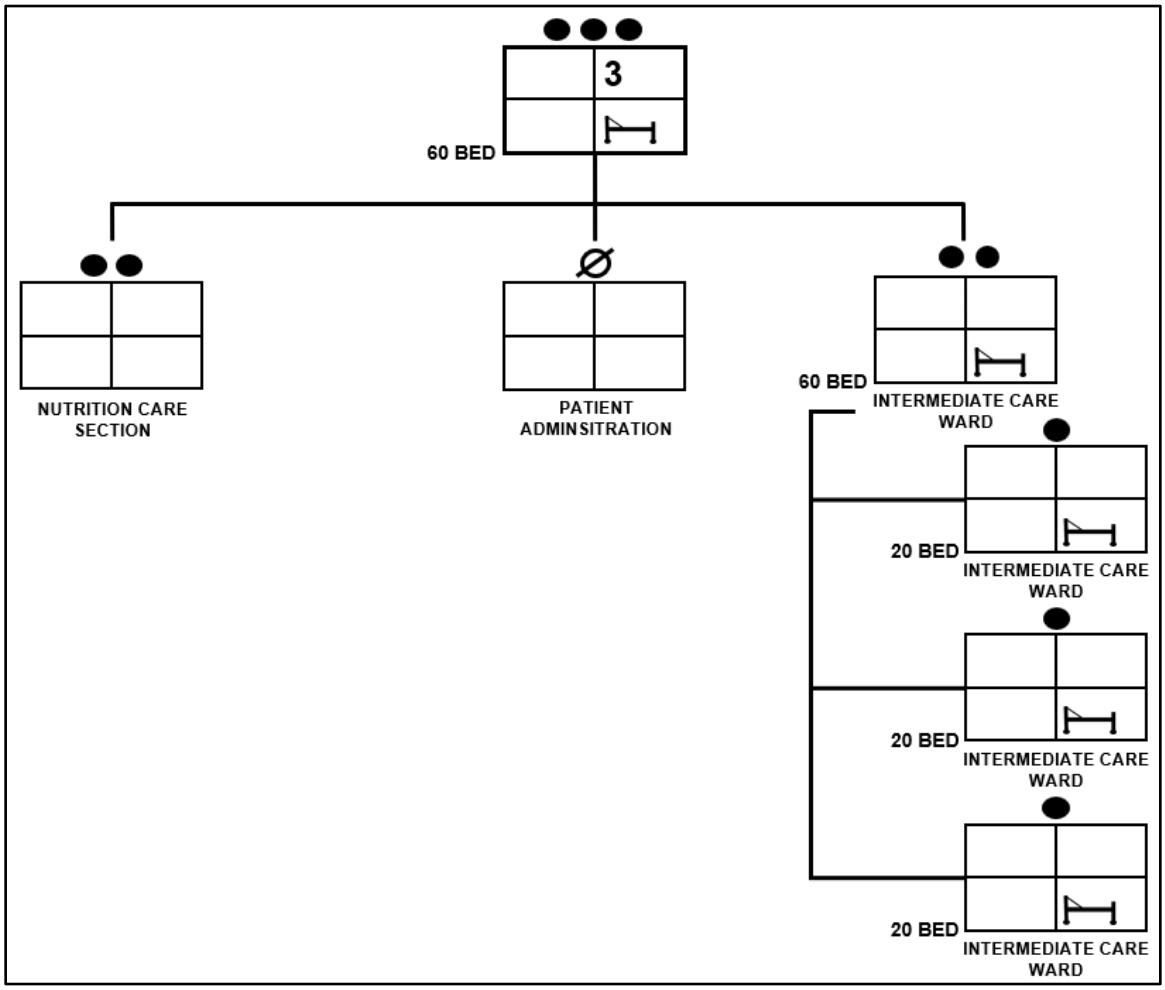


Figure 2-5. Task organization of the intermediate care ward augmentation detachment (60-bed)

Detachment Headquarters

2-118. Detachment headquarters may augment the HHD, hospital center or field hospital (32-bed) with additional personnel to increase C2 capabilities. However, the officer in charge and NCO in charge are medical providers in the ICW, absorbed in patient care, and may not be able to primarily focus on administrative or C2 responsibilities.

Nutrition Care Section

2-119. The nutrition care section augments the field hospital (32-bed) with additional personnel to increase nutrition services. Refer to the field hospital (32-bed) section of this publication for more information on the nutrition care section and Appendix B for nutrition care operations.

Patient Administration Section

2-120. The patient administration section augments the hospital with additional personnel to increase patient administration services. See the field hospital (32-bed) section and Appendix B of this publication for more information on the patient administration section and PM.

Intermediate Care Ward

2-121. The ICW augments the hospital with three ICWs to increase the intermediate nursing care by managing surgical or medical patients whose conditions require observation for real or potential life-threatening disease or injury. The acuity of care may range from those requiring constant observation to those patients able to ambulate and begin to assume responsibility for their own care. The acuity of care of these patients may fluctuate depending on the intensity of their wounds, illness, or injury. Although not routine, ICW patients may require monitoring devices and ventilator support. The ICWs provides daily logistics requirements and statistical data to the nursing services section.

EMPLOYMENT

2-122. The ICWAD is not designed as a standalone unit and will be employed with and further attached and deployed with the field hospital (32-bed) assigned AO. The ICWAD provides increased ICW bed augmentation to the field hospital (32-bed) capacities and further augments patient administration and nutrition care sections.

2-123. Based on the orders process, PAR, and BOA up to two (2) ICWADs may be attached to one or a combination of two field hospital (32-bed). Normally the hospital center in support of the division will not receive an ICWAD as the main mission of a Role 3 hospital in the division AO is to perform surgeries to stabilize patients for further evacuation out of the division AO to ensure freedom of movement and maneuver. See Chapter 3 and Appendix B of this publication for more information on the employment and planning of the ICWAD (60-bed).

BASIS OF ALLOCATION

2-124. Hospital commanders, staffs, and medical planners use the BOA below with the PAR and orders process when planning for the ICWAD:

- Phase I-III MCO for brigade and EAB hospital direct admissions per 100 occupied beds:
  - 0.61 ICWs/100 WIA.
  - 0.66 ICWs /100 DNBI.
  - 0.39 ICWs /100 nerve.
  - 0.82 ICWs /100 blister.
- For theater direct admissions per 100 occupied beds:
  - 0.82 ICWs /100 WIA.
  - 0.45 ICWs /100 DNBI.
  - 0.48 ICWs /100 nerve.
  - 0.47 ICWs /100 blister.
- For theater hospital transfer admissions per 100 occupied beds:
  - 0.77 ICWs /100 WIA.
  - 0.31 ICWs /100 DNBI.
  - 0.93 ICWs /100 nerve.
  - 0.13 ICWs /100 blister.
- For theater hospital transfer admissions with skip:
  - 0.69 ICWs /100 WIA.
  - 0.21 ICWs /100 DNBI.

  - 0.92 ICWs /100 nerve.
  - 0.92 ICWs /100 blister.
- Phase IV (Stabilize) Apply MCO rule for U.S. supported forces and add for directed support for HN PAR at one (1) ICWAD per 50,000.
- Phase V (Enable Civil Authority) BOA adjustments will be based on roles of care directed and PAR supported.

Note. See Appendix B of this publication for additional information referencing the unit's BOA.

MOBILITY

This unit has no organic vehicles and relies on external assets for mobility.

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Chapter 3

Employment of Hospitalization Organizations

This chapter discusses topics that are applicable to all hospitalization units, regardless of organizational structure. It includes information on the tactical employment of the Role 3 hospital and specialized augmentation detachments and teams. Leaders should understand how the operational variables and the mission variables, may impact the employment the hospital.

SECTION I – CONCEPT OF EMPLOYMENT

3-1. This section provides an overall discussion of the employment of the hospital center and examples of how it can be configured, depending on the required bed capacity and medical capabilities. It describes early entry planning, the use of specialty organizations, and hospital configurations.

HOSPITAL CENTER COMPONENTS

3-2. The HHD, hospital center and field hospital (32-bed) should be deployed and employed together as the smallest element to provide Role 3 hospitalization. When referring to the organization (or at least the HHD and one or more of the subordinate units), it is called the hospital center and not the field hospital. The field hospital is the 32-bed subordinate unit that is one piece of the hospital center. The two do not necessarily need to be collocated upon initial employment, but the HHD, hospital center possesses C2, logistics, maintenance, and equipment capabilities that make the employment of both units together much more effective and efficient. Further, the field hospital (32-bed) is not designed to be split between two locations. A requirement to provide all the Role 3 capabilities of a field hospital (32-bed) in two locations cannot be accomplished by one. Therefore, a second field hospital (32-bed) would be required and one HHD, hospital center can provide C2 for both.

HEADQUARTERS AND HEADQUARTERS DETACHMENT, HOSPITAL CENTER

3-3. The HHD, hospital center provides C2 for up to two functioning field hospitals (32-bed) as well as additional medical augmentation detachments with a combined maximum of 240 beds. The hospital center's modular design has the capability to provide differing bed quantities and types of beds as well as surgical and medical augmentation to project a hospital structure that can support variable medical mission requirements.

3-4. Split-based operations covering two locations present unique hospitalization planning requirements. The distance between separated hospital elements as well as requisite surgical and patient bed requirements for each location have a significant impact on the planning and employment process. Medical planners may want to consider employing two HHD, hospital centers if split-based operations significantly impede C2 capabilities.

3-5. The HHD, hospital center and its individual subordinate elements are not designed to be broken apart. Hospital commanders and medical planners should take this into consideration when deciding to split a Role 3 hospital to support two locations. The following examples describe how a HHD can provide C2 for two distinct subordinate units operating in two separate locations. The hospital center will remain at one location with one field hospital while the other field hospital forward deploys but remains under the C2 of the HHD, hospital center. If the Role 3 hospital center is supporting a division or corps in the offense, it can assume risk by only establishing 208 beds, leaving one field hospital (32-bed) packed up and ready to move in support of the offense. Once the order comes to move, the packed-up field hospital moves to the new location and complexes. Once operational the 208 bed Role 3 decomplexes and prepares to link up with the forward deployed field hospital.

FIELD HOSPITAL (32-BED)

3-6. The field hospital (32-bed) is the cornerstone of the deployed hospital. It represents the smallest hospital element with complete requisite clinical capabilities of a Role 3 MTF. This hospital is designed to be self-supporting while remaining transportable and expandable. Combinations of the modular hospital units are suitable in providing hospitalization across the range of military operations. It is the basis for any combinations of capabilities (bed types/numbers and functions). The other augmentation detachments discussed are not designed to be autonomous in a deployed scenario; they are intended to augment and complement the field hospital (32-bed).

3-7. The field hospital (32-bed) can provide complete Role 3 hospitalization under the C2 of the HHD, hospital center with a 72-hour basic load of medical and nonmedical supplies. Hospitalization is provided for up to 32 patients consisting of one ward with intensive care nursing for up to 12 patients (10 beds are fully equipped for patients requiring the most intensive monitoring or care) and one ward providing intermediate care nursing for up to 20 patients, emergency treatment to receive, triage, and prepare incoming patients for surgery, surgical capability consisting of general, orthopedic, and obstetrical-gynecological surgery based on two operating tables staffed for 36 operating table hours per day. An additional 36 hours of surgical capacity is available by utilizing the remaining 12-hour capacity from the original two OR tables and an additional 24-hour capacity from an OR table established in the x-ray section. This additional surgical capacity was designed to facilitate augmentation by surgical teams and detachments as well as to accommodate temporary peaks in surgical requirements. The hospital also includes pharmacy and clinical laboratory services with limited basic microbiology screening, blood banking, CT and radiology services, personnel administration, patient administration, logistical, nutritional care services, and a hospital ministry team for hospital staff and patients.

3-8. The field hospital (32-bed), as an individual unit and is not designed to perform split operations. If the capabilities of the field hospital (32-bed) are required in two separate geographical locations, then two field hospitals (32-bed) and requisite hospital augmentation detachments are required to support the mission.

HOSPITAL AUGMENTATION DETACHMENTS

3-9. Hospital augmentation detachments and teams may be attached to the field hospital (32-bed) to increase its bed, surgical, staffing, and medical specialty capabilities. These capabilities are included through the orders process using BOA and PAR factors to determine the number of units required.

3-10. Planning for hospitalization is crucial during competition below armed conflict and refined during crisis. Medical planners should refer to the detailed information in Chapter 2 and Appendix B of this publication.

EARLY ENTRY PLANNING AND OPERATIONS

3-11. Commanders may be expected to task-organize portions of the HHD, hospital center and field hospital (32-bed) to provide a limited early entry Role 3 capability until the remainder of the field hospital (32-bed), HHD, and augmentation detachments arrive later in the deployment progression. Use of specialty detachments such as the FRSD may be used in early entry operations.

3-12. There are many ways to task-organize units, or components of units, to establish a light, flexible, and mobile early entry capability. For example, using an FRSD as the base unit for an early entry package provides the DCR and DCS capability. Providing a portion of the hospitalization capabilities from the hospital center, such as ICU beds with requisite equipment, staffing, and vehicles, provides more for the FRSD than what it would normally depend upon when employed with a Role 2 medical company. Finally, adding limited pharmacy, lab, and x-ray to the early entry package meets the minimum Role 3 capabilities while retaining a more expeditionary response than a complete field hospital (32-bed).

3-13. Commanders and staffs should be prepared to provide a Role 3 capable early entry element, which may not look the same for each mission. Its composition, size, personnel, equipment, and capability may be different based on the uniqueness of the units, mission, and PAR it is required to support.

3-14. Commanders and planners should anticipate the minimum requirements for an early entry medical package to include DCR, DCS, and inpatient care. For additional planning factors for early entry, see Appendix B.

HOSPITAL CENTER CONFIGURATIONS

3-15. The hospital center has the capability of being deployed in multiple configurations to provide requisite care to any military or foreign humanitarian assistance operation. The hospital center has the capability to perform split-based operations within an AO. The HHD, hospital center has the capability to provide C2 for up to a 240-bed hospital when configured to operate in one or two locations.

3-16. A Role 3 hospital in support of a corps will look different from one in support of a division. See Appendix B of this publication for figures and tables for examples of hospital center configurations that would support a range of military operations.

SECTION II – EMPLOYMENT OF ROLE 3 HOSPITALS

3-17. This section provides guidance and references for employing medical units and hospitals in an AO. Detailed planning can be found in the references provided.

EMPLACEMENT

3-18. The displacement and reestablishment of a Role 3 hospital is dependent upon the mission and other mission variables. Unit displacements are normally conducted because of orders issued by the higher headquarters. Frequently, the time to respond to orders is short; therefore, the hospital commander should disseminate guidance to the staff in the most expedient method. Upon receiving the commander's guidance, the staff conducts the mission analysis, incorporating changes based on new information or situation. The hospital saves time by rehearsing moves, using knowledge from experience, and maintaining a detailed TACSOP.

3-19. The hospital operations section develops the OPORD according to the higher headquarters' plan and the TACSOP. To save planning time, hospitals should have examples of OPORDs for various types of offense, defense, stability, and defense support of civil authorities' hospital support missions from across the range of military operations. The hospital commander reviews and approves the OPORD. The hospital commander ensures that the move is coordinated with higher headquarters and all supported elements. All supported elements should be aware of when hospital operations at the current location will be curtailed and the date and time of opening hospital operations at the new site. This can be referred to as an h-hour sequence. Role 3 hospital unit displacements necessitate the transfer of patients and hospital operations to other Role 3 hospitals. To minimize disruption of hospital operations, the hospital should move in echelons. Displacement by echelons is contingent upon the higher commander's intent, the tactical situation, and the availability of support requirements. See Appendix B of this publication for displacement planning considerations.

WARNING ORDER

3-20. The warning order (WARNORD) is a preliminary notice of an order or action that is to follow (JP 5-0). It is also a planning directive that initiates the development and evaluation of military courses of action by a commander. Also called WARNORD (JP 5-0). A move is usually initiated by a WARNORD issued by the higher headquarters. The WARNORD serves notice of a contemplated action or order that is to follow. The amount of detail included in a WARNORD depends on the time available, the means of communications, and the information requested by the commander.

3-21. Upon receiving the WARNORD, the commander analyzes the mission and provides planning guidance to the staff. Using the higher headquarters' service support annex, status reports, and other appropriate documents, the staff formulates their running estimates for the commander's approval. With the acceptance and approval of the running estimates, the commander provides a decision and concept of operations. Concurrently with the running estimate sequence, other unit personnel conduct preliminary equipment checks and equipment loading procedures. Based on the commander's decision, the staff coordinates with the higher headquarters to affect the transfer of patients to other MTFs.

3-22. In preparation for displacement, the commander should organize the unit into manageable echelons, preserving unit integrity as much as possible. Preparation for displacement requires—

- Identifying external support requirements (for example, a hospital may require additional materiel handling equipment and security escorts).
- Phasing down and transferring MTF operations.
- Evacuating and transferring patients to other MTFs.
- Performing map, ground, and air reconnaissance of the routes and selecting the new site when possible.
- Selecting routes.
- Designating start points and release points.
- Reconnoitering the route to the starting point.
- Providing for fuel, security, maintenance, supply, and equipment evacuation.
- Determining the order (echelons), rate of march, maximum speed of vehicles, catch-up speed, and distance between vehicles.
- Establishing checkpoints and halts.
- Establishing communications security procedures.
- Establishing mission-oriented protective posture-level.
- Dispatching reconnaissance and advanced parties.
- Controlling traffic.
- Planning for environmental considerations, policies, and requirements.
- Issuing orders.

OPERATION ORDER

3-23. The *operation order* is a directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. Also called OPORD. (JP 5-0). The operations officer has staff responsibility for formulating, publishing, and obtaining the commander's approval of and distributing the OPORD. The OPORD provides unit staff and personnel the information needed to carry out an operation. Preparation of this order normally follows the completion of area reconnaissance and an estimate of the situation. When time is available and the existing tactical situation conditions prevent detailed planning or area reconnaissance, the higher headquarters prepares an initial march plan and issues a fragmentary order to modify these plans as needed. A *fragmentary order* is an abbreviated operation order issued as needed to change or modify an order or to execute a branch or sequel. Also called FRAGORD (JP 5-0). If conditions and time permit, information in the OPORD includes—

- External transportation support.
- Security support.
- Destination and routes.
- Rate of march, maximum speeds, and order of march.
- Start points and times.
- Scheduled halts, vehicle distances, and release points.
- Required communications.

3-24. Each unit section reports its supply, vehicle, equipment, workload, and maintenance status to the operations officer. This information is used in coordination with higher headquarters to finalize the convoy organization, compute additional transportation, security, and additional external support requirements, and perform march computations. Geospatial analysis can provide terrain analysis and environmental analyses in support of operations. Refer to TM 3-34.56/MCRP 3-40B.7 for more information on waste management for deployed forces.

AREA RECONNAISSANCE

3-25. The higher headquarters normally prescribes the reconnaissance route. The operations section uses a map reconnaissance in such cases to confirm checkpoints, identify problem areas, and begin planning positions of the unit in the new area. This effort includes the gathering of data already generated, if any, on the route and the new area that includes specific environmental health risks, environmental considerations (in accordance with ATP 3-34.5/MCRP 3-40B2), and related information. If the route is not prescribed and

the unit is not included as part of a reconnaissance party with other units, the operations section briefs the reconnaissance team on the displacement plan and provides the team with a strip map and the designated mission oriented protective posture (MOPP)-level and notifies higher headquarters of the route selected. The composition of the reconnaissance team is directed by the unit commander.

3-26. The reconnaissance party wears the appropriate protective gear based on the threat analysis and monitors all radiological and chemical detection devices. It performs duties to—

- Verify map information.
- Note capabilities of road networks.
- List significant terrain features and potential problem areas.
- Identify and mark contaminated areas and minefields.
- Compute travel times and distances.
- Perform route and ground reconnaissance to include site selection.

ADVANCE PARTY

3-27. The advance party moves before the main body and is dispatched as directed by the commander. Its composition is recommended by the operations officer and approved by the commander. It prepares the new site for arrival of the main body and may provide minimal medical support or surgical if an FRSD is available and not forward deployed with a Role 2 medical company. The advance party performs duties to—

- Ensure the area is free of enemy activity and monitor radiation exposure measurements within the area of the new site. A security sweep of the new site is normally done by security support forces.
- Position chemical alarms.
- Establish communications with higher headquarters and old location.
- Designate boundaries of hospital elements, based on unit defense plans and consistent with types of weapons and personnel availability.
- Increase security by manning key points along the perimeter.
- Establish a command post.
- Ensure personnel follow dispersion and other measures.
- Position personnel to guide main body from the release point to designated locations
- Provide initial medical or surgical capabilities.

MAIN BODY

3-28. The main body moves as directed in the OPORD. The last echelon normally closes out any remaining operations ensuring the old site is clear of anything that could be of intelligence value to the enemy and then moves to the new site. This echelon includes maintenance elements to deal with disabled vehicles from the rest of the convoy. It also picks up guides and markers along the route. As the main body arrives at the new site, it is met by the advanced party and guided to designated positions. Personnel begin to complex the Role 3 hospital at the new site and the establish operations following the priorities set by the commander. This timeline and priorities are detailed in the hospital's h-hour sequence for complexing the hospital at the new site and being able to accept patients according to the supported unit's OPLAN (see Appendix B).

SITE SELECTION

3-29. Site selection is an important factor impacting on the accomplishment of the hospital's 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 setting up the system or for ambulances to turnaround, congestion, and traffic jams around the hospital can result; or, if the area selected does not have proper drainage, heavy rains may cause flooding in hospital areas. The hospital should not be placed near hazardous materials (such as petroleum, oils, lubricants, and ammunition) or storage areas and motor pools. The selected site is cleared of mines, booby traps, and CBRN hazards. The selected site is not located near potential areas of contamination, such as a garbage dump, landfill, or other waste disposal site.

COMMANDER'S PLAN AND MISSION

3-30. The specifics of the operation plan, the way it will be executed, and the hospital's assigned mission can affect the selection of a site. The requirements for an area that is only to be used for a short period of time

can differ significantly from an area expected to be used on an extended basis. For example, if the hospital's mission requires that it relocates several times a month, the entire hospital and its capabilities will not be established; only essential hospitalization services, shelters, and equipment will be used. On the other hand, if it is anticipated that the hospital will be located at one site for an extended period, the entire hospital may be complexed or buildings and pre-established shelters, if available, may be used.

ROUTES OF EVACUATION AND ACCESSIBILITY

3-31. The preferred means of evacuation is by air; the primary means of evacuation is by ground. Whenever the tactical situation permits, URGENT and URGENT-SURGICAL precedence patients should be evacuated by air and ROUTINE and CONVENIENCE precedence patients evacuated by ground. During large-scale combat operations, any combination of air and ground will be used based on mission variables to quickly move patients through the continuum of care. CBRN patients (contaminated) should be evacuated on ground ambulances due to the difficulty and time required to decontaminate an air ambulance. The hospital should be situated so that it is accessible from several different directions and areas. It should be located near and be accessible to main road networks and air corridors, but not placed near lucrative targets of opportunity. The site should not be so secluded that incoming ambulances and casualty evacuation platforms have difficulty locating the hospital. For additional information on MEDEVAC operations refer to ATP 4-02.2. For additional information on casualty evacuation operations refer to ATP 4-02.13.

EXPECTED AREA OF PATIENT DENSITY

3-32. To ensure the timely delivery of AHS support, the Role 3 hospital should be in a location proximate enough to the supported units to provide timely hospitalization support. Without proximity to the areas of patient density, the evacuation routes will be unnecessarily long, resulting in delays in both treatment and evacuation that may result in increased morbidity. The longer the distance that must be traveled, the longer it takes for the patient to reach the next role of care. Further, this time delay reduces the number of ambulances available for medical evacuation support.

HARDSTAND, DRAINAGE, OBSTACLES, AND SPACE

3-33. The site should provide good drainage during inclement weather. Care should be taken to ensure that the site selected is not in or near a dry river or stream bed, has drainage that slopes away from the hospital location, not through the hospital site, and that there are no areas where water can pool.

3-34. The ground, in the selected area, should be of a hard composition that is 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 should be able to withstand a heavy traffic flow of incoming and departing ambulances in various types of weather.

3-35. 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 hospital can be established. Engineer site preparation is required for the establishment of hospitals.

3-36. The space to establish the treatment and administrative areas of the hospital is dependent upon the mission, expected duration of the operation, and whether CBRN operations are anticipated. The site should provide adequate space for establishment of all hospital elements including possible augmentation. It should be adequate in size to accommodate dispersion of unit assets according to the TACSOP. The land space required for a hospital varies a great deal, depending on how much of the MTF will be established. For example, one field hospital (32-bed) requires nearly seven acres. These seven acres includes space for the field hospital (32-bed) deployable medical system and adequate space for vehicles, containers, ancillary services, such as field feeding, laundry and bath, water distribution, and sleeping areas.

COMMUNICATIONS

3-37. While considering all factors of site selection, remember that terrain and enemy activity can impede the hospital's communication systems.

LIKELY ENEMY TARGETS

3-38. The site should not be too closely located to likely enemy targets including—

- Ammunition storage facilities.
- Petroleum, oils, and lubricants points.
- Motor pools.
- Main supply routes (the facility should be in the vicinity of the main supply route for accessibility but not directly on it).
- Bridges.
- River crossing points.
- Strategic towns and cities.
- Industrial complexes and factories.

COVER AND CONCEALMENT

3-39. The area should provide maximum cover and concealment without hampering mission accomplishment or communications capability. Overhead cover is desirable for protection from biological and chemical warfare agent contamination in the event of an attack.

AIRCRAFT LANDING SITES

3-40. The site selected should have sufficient space available to serve as a landing site for incoming and outgoing air ambulances. Sufficient space should be allocated for establishing a landing site for contaminated aircraft downwind and at a safe distance from the patient decontamination site (PDS), the unit and treatment areas. Another important feature that should be considered is a space sufficient to support a helicopter landing zone for evacuation aircraft, ensuring the site is free of hazards, such as power lines, poles, or debris. The helicopter landing zone should be able to accommodate a CH-47 (referred to as size 4 and should be 265 feet [80 meters] in diameter).

PERIMETER SECURITY

3-41. The site selected should maximize the use of available terrain features and defilade for cover and concealment. Personnel assigned to the Role 3 hospital are provided weapons for personal defense and protection of the patients under their care. The extent of perimeter security requirements is dependent upon whether the unit is included in a base cluster or is solely responsible for its own security. For additional information on defending the hospital, refer to FM 4-02 and see Appendix C of this publication.

FLOW OF TRAFFIC (PATIENTS AND VEHICLES)

3-42. In establishing the traffic patterns within the unit area, consider the following:

- The selected site should 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, treatment, and holding areas. Using overlapping internal traffic patterns should be minimized.
- The external traffic pattern should afford a smooth flow of vehicle traffic through the unit area. There should 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.
- A route from the landing site to the triage area should be established which minimizes the distance the patient should be carried, and which affords easy access to the treatment area.
- Traffic patterns of the other units in the base cluster should be considered when determining internal routes.

EQUIPMENT

3-43. Certain pieces of equipment require strategic placement within the unit area. In selecting the site, the placement of this type of equipment should be considered. For example, trailer-mounted 100-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 that the limited amount of cable can

reach. It is preferable to maximize the use of natural terrain features within the site to provide a portion of the needed shielding rather than having to rely solely on the use of sandbags.

DECONTAMINATION AREA

3-44. The site should be large enough to provide an area for patient decontamination. The specific site selected to establish the decontamination site must be downwind of the unit and treatment areas and a safe enough distance to prevent contamination if rotary wing aircraft are used to transport contaminated patients. For additional information for establishing a PDS and how to conduct patient decontamination in a CBRN environment, refer to ATP 4-02.7 and ATP 4-02.4.

SHELTERING THE HOSPITAL

3-45. When providing Role 3 hospitalization in a deployed environment the hospital should be established so that the patients and staff are sheltered from the elements. It is also desirable to have some degree of environmental control.

EXPEDIENT SHELTERS

3-46. Expedient shelters are generally more convenient and easier to establish and use when the hospital is conducting a movement and should provide emergency care. Expedient shelters may be as simple as a tarp being erected to shield the patient and care providers from the sun or rain. In situations where weather and terrain permit, a shaded area adjacent to the route of march will suffice. It may be as simple as setting up on the tailgate of a vehicle which may be adequate for the immediate situation.

TENTAGE AND SHELTERS

3-47. Tentage and shelters for a Role 3 hospital are often a mixture of tentage and shelter types. The two most prevalent are the tent, expandable, modular, personnel shelter (temper) and the one and two-sided International Organization for Standardization shelter. The positioning of the shelter requires materiel handling equipment. Additionally, engineer support may be required to prepare the site prior to establishing a Role 3 hospital. This engineer support should include trenches and patient bunkers for the protection of patients and hospital staff. The use of camouflage for Role 3 hospitals should be reviewed by legal at the TMC unless policy is established and delegates to the MEDBDE.

3-48. The Role 3 hospital is equipped with medical tents and shelters on their TOE. Tentage and shelters on the TOE are for hospitalization patient treatment areas based on the common table of allowances and the unit's TOE. Shelters in the Role 3 hospital are self-contained transportable multi-application utility shelter that expands on one or two sides and are container sized. Hospital staff are required to perform -10 level maintenance on organic tents and shelters. Anything above -10 level is coordinated thru sustainment.

3-49. Tents provide hospital personnel with a shelter system that is quick to setup and strike. Their portability and convenience are especially useful for forward deployed hospitalization and specialized augmentation formations. Tents are easy to camouflage and conceal and allow flexibility in site selection.

Note 1. When a unit replaces existing nonmedical tentage or shelters, selection criteria for new tents should include compatibility with the unit's current tentage or shelters size requirements and existing heating, cooling, and electrical requirements and capabilities.

Note 2. Shelters or tentage for C2 purposes (HHD, hospital center or field hospital operations section) and logistics support area (sleeping area) are nonmedical and fall under the common tables of allowance or modified TOE which are purchased with unit funds.

SEMIPERMANENT BUILDINGS

3-50. Semipermanent buildings are generally constructed and used in base clusters or forward operating bases particularly in long-term operations predominated by stability tasks. Semipermanent buildings offer several features that make them very desirable. The structures can be built to specific dimensions which are required to establish and operate a Role 3 hospital.

BUILDINGS OF OPPORTUNITY

3-51. Buildings of opportunity present several distinct advantages and should be used whenever possible. These may include electrical lighting, air conditioning and central heat, telephones, running water, toilets, and laundry and bath facilities. Prior to establishing a hospital in an existing structure, the building must first be inspected and approved for occupancy by the supporting engineers. The building's existing layout may pose a significant challenge to hospital personnel when trying to establish an efficient layout.

HEALTH FACILITY MANAGEMENT

3-52. The facility management capability at a Role 3 hospital consists of the utilities operation and maintenance warrant officer who generally serves as the overall maintenance officer (nonmedical). This individual provides technical expertise to operate, maintain, and repair the Army's utility systems. Units should plan for long-term sustainment of power generation equipment and may consider shifting this requirement (tactical or commercial generators) to the Logistics Civil Augmentation Program or other contract support. Refer to ATP 4-10.1 for more information to the Logistics Civil Augmentation Program. Additional capabilities available at a hospital include utilities equipment repairers, motor pool, and laundry and bath. Other personnel may be further assigned or tasked to perform repairs or facility management functions.

Note. The health facility planner on the TMC and MEDBDE staff is responsible for monitoring facility engineer support to subordinate medical units, assisting medical units with facility project requirements, establishing facility management policies in accordance with theater policies, and coordinating for external facility engineering support for extended sustainability of MTFs and infrastructure. For a comprehensive discussion of facility planning considerations, refer to ATP 4-02.1, Chapter 8.

The two paragraphs below implement NATO STANAG 2060 and 2931.

CAMOUFLAGE OF MEDICAL UNITS

3-53. If the failure to camouflage endangers or compromises tactical operations, the camouflage of the 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. A controlled entry into the medical unit's area is established. NATO STANAG 2060 and 2931 provides for camouflage of the Geneva emblem and Red Crescent on medical facilities where the lack of camouflage might compromise tactical operations. The STANAGS defines medical facilities as medical units, medical vehicles, and medical aircraft on the ground. Camouflage of the Red Cross means covering it up or taking it down.

Note. The black cross on an olive background is not a recognized emblem of the Geneva Conventions.

3-54. It is not envisioned that the Role 3 hospital will be camouflaged. For more information on the law of armed conflict and Geneva Conventions, refer to FM 4-02, FM 6-27, and see Appendix C of this publication.

SPECIALIZED ORGANIZATION AUGMENTATION

3-55. Through the orders process, BOA, and PAR specialized detachments and teams can be attached and fall under the C2 of the HHD, hospital center. These units may include elements of—

- The medical detachment (prolonged care augmentation).
- The medical detachment (minimal care).
- The medical detachment (forward resuscitative and surgical).
- The hospital augmentation team (head and neck).

3-56. These specialized units may be attached to the hospital center. In the case of the PCAD, medical detachment (minimal care), and FRSD, they may be further attached as follows:

- PCAD. Forward deployed as far forward as the Role 2 medical company (brigade support) (BSMC).
- Medical detachment (minimal care). In support of a medical detachment (combat and operational stress control) or dental company (area support) (DCAS).
- FRSD. Forward deployed as far forward as the Role 2 BSMC.

3-57. When not forward deployed, the Role 3 hospital uses specialized organization personnel as augmentation of assigned hospital staff but never fully relies on these assets as they may be pulled away at a moment's notice, mission dependent. When the operational requirement is complete, specialized organizations may return to the Role 3 hospital. For a discussion on specialized detachments and teams that may be attached to the Role 3 hospital, see Chapter 4 of this publication.

3-58. Hospital leaders should consider specialized units in the planning process. Specific use of specialized organizations operating in the Role 3 hospital footprint should be included in the hospital's TACSOP. For additional planning factors, see Appendix B of this publication.

The two paragraphs below implement ABCANZ standard 2082.

TRAINING CONSIDERATIONS

3-59. Commanders and planners employ hospitals in a variety of ways to meet the medical support requirements presented at a given time or for a given theater. During operations in Iraq and Afghanistan, Role 3 hospitals did not normally deploy with their full complement of assigned personnel due to policy, PAR, and the orders process. Commanders and planners employed hospitals in a variety of ways to meet the medical support requirements presented at a given time or for a given theater. In many cases, hospital personnel lost many skills required to deploy, establish, and relocate Role 3 hospitals utilizing the personnel and equipment on their TOEs. It is important, as the Army continues its transition to large-scale combat operations, to ensure Role 3 hospitals are prepared to deploy without the luxury of established buildings, long-standing SOP, and left-behind equipment that Role 3 hospitals focus training on Headquarters Department of the Army standard mission essential task list.

3-60. Hospitals are receiving new equipment as the Army moves into a period of modernization. The new air beam tents, for example, create challenges for Soldiers and leaders, due to their difference (integral floors and an integrated inflation system) that may cause reconfiguration of load plans and additional training on setup and maintenance. The new air beam tents have slightly different dimensions than previous generations of tents and therefore, change how ward masters develop staking plans and complex the hospital. However, simply requiring the unit to practice erecting and taking down the tents will pay dividends when establishing the hospital in an OE in support of maneuver forces.

3-61. Another skill that has likely diminished over the last several years is the ability to develop layout options and staking plans for the hospital complex. It is a difficult task and takes a lot of practice to become proficient at developing ways to organize hospital capabilities that efficiently support patient care and allow for the timely establishment of hospitalization. Planning the layout is more complicated when considering whether hospital augmentation detachments will be added or taken away from the MTF throughout the course of operations. Complexing a base hospital that, in the best ability possible, allows detachments to integrate or be removed comes with a great deal of practice, trial and error, and planning.

3-62. Rarely, in the last several years of supporting operations in Iraq and Afghanistan, have Role 3 hospitals been required to use TOE equipment to establish water and power distribution throughout the MTF. In conjunction with a well thought out staking plan, ensuring the power and water distribution (to include wastewater removal) supports the requirements throughout the hospital is essential. Furthermore, the distribution of power and water is obviously best if established very early in the complexing of the facility. Once tents are erected and equipment established inside, it would be detrimental to realize adequate water and power supply has not been established. For detailed information on Role 3 hospitalization and specialized medical and surgical augmentation training considerations, see Appendix F of this publication.

SECTION III – HOSPITAL CENTER COMMAND AND SUPPORT RELATIONSHIPS

3-63. Army command relationships define superior and subordinate relationships between unit commanders. Army support relationships are not a command authority, they are established by Army commanders when subordination of one unit to another is inappropriate. Hospital leaders should be well versed in the aspects of Army command and support relationships to better provide hospital and on order specialized hospital medical augmentation within their assigned AO. For more information on Army command and support relationships, refer to FM 3-0, FM 4-02, and FM 5-0.

ARMY COMMAND RELATIONSHIPS

3-64. There are five types of command relationships. They are:

- Organic.
- Assigned.
- Attached.
- Operational control (referred to as OPCON).
- Tactical control (referred to as TACON).

Note. Unless modified, administrative control (referred to as ADCON) responsibility of hospitalization organizations remain with the parent unit when they are under the operational or tactical control of a gaining unit.

3-65. The HHD, hospital center is assigned to and maintains a command relationship with the MEDBDE. Through mission requirements and the orders process the Role 3 hospital may be further attached or under the operational or tactical control of a supported unit. Care should be taken when doing this as hospitalization assets are scarce and may need to be reallocated elsewhere with little planning time and may impact timelines.

3-66. The HHD, hospital center provides C2 for the Role 3 hospital comprised of one or two field hospitals (32-bed) and other assigned or attached hospital augmentation detachments and elements of specialty organizations.

3-67. Hospital augmentation detachments will be assigned to an HHD, hospital center, and further attached or assigned to a field hospital (32-bed). Medical augmentation detachments lose their identity as a separate and distinct unit when they are employed. While there will likely still be a supervisory chain of command like what the personnel were familiar with prior to deploying, their medical functions are absorbed into those similar capabilities, wards, and sections of the hospital once they become attached to the field hospital (32-bed).

3-68. The HHD, hospital center is dependent on the field hospital (32-bed) for administrative support, feeding, unit-level maintenance, security, power, and classes of supply. The HHD, hospital center does not have a very robust or large staff. When it is assigned two field hospitals (32-bed) and associated augmentation detachments, operating in two separate locations, the HHD, hospital center may have to rely on the field hospital (32-bed) staff that it is collocated with. Combining the two staffs allows for a large enough staff to operate 24-hours a day with key leaders present all the time. A technique, to keep the functions of the two separate staffs distinct, is to have the HHD, hospital center staff focus on mid and long-range planning, coordination with the MEDBDE, and synchronization with other external units ("up and out"). The field hospital (32-bed) staff can remain mostly focused on the internal operations of the hospital and augmentation detachments as well as current and short-range operational planning ("down and in"). When necessary, the staffs can be utilized cross-functionally due the nature of them working in the same command post.

ARMY SUPPORT RELATIONSHIPS

3-69. There are four types of Army support relationships. They are:

- Direct support.
- General support.

- General support-reinforcing.
- Reinforcing.

Note. Area support is not a support relationship. Area support is a task assigned to a sustainment unit directing it to support units in or passing through a specified location (ATP 4-90). Medical units also perform the area support task.

3-70. The hospital center normally operates in a general or direct support role to the supported unit, retaining their command relationship with the MEDBDE. This is the preferred method and allows quicker reaction to reallocating scarce hospitalization assets and is in synchronization with the six AHS principles. Only under certain situations would the Role 3 hospital not be under a MEDBDE. An example would be if a MEDBDE was not task organized in support of division, but the Role 3 hospital is. In this situation, every effort should be made to ensure the Role 3 hospital is under the C2 of the senior medical commander.

SECTION IV – HOSPITALIZATION ROLE IN PATIENT MOVEMENT OPERATIONS

3-71. *Patient movement* is the act or process of moving a sick, injured, wounded, or other person to obtain medical and/or dental care or treatment, which include medical regulating, patient evacuation, and en route medical care (JP 4-02). The Army refers to patient evacuation as MEDEVAC. For more information on MEDEVAC and medical regulating, refer to ATP 4-02.2.

3-72. The Role 3 hospital has a role in MEDEVAC and medical regulating. Listed below are key areas focused on the Role 3 hospital's roles and responsibilities.

MEDICAL EVACUATION

3-73. Medical evacuation is the key factor in ensuring the continuity of care is provided to our Soldiers by providing en route medical care during evacuation, facilitating the transfer of patients to the Role 3 hospital. Medical evacuation support is normally provided on a direct support and area support basis.

3-74. The Role 3 hospital has the responsibility of coordinating with the supporting MEDBDE S-3 PM branch to request evacuations assets to clear beds. If no MEDBDE is available then through the orders process evacuation coordination will be detailed and conducted thru the senior medical commander, appropriate surgeon section at echelon, or other service PM asset.

MEDICAL REGULATING

3-75. Medical regulating is an integral part of medical evacuation. *Medical regulating* is the coordination for the movement of patients to match patients with an appropriate medical treatment facility. See also health service support, medical treatment facility. (JP 4-02). Medical regulating is designed to ensure the efficient and safe movement of patients. It is a system that entails identifying the patients awaiting evacuation, locating the available beds, and coordinating the transportation means for movement. Historically, medical regulating starts at Role 3, where robust patient administration section exists with the capacity to provide the necessary medical regulating support. Informal medical regulating is normally conducted at Role 1 and Role 2. The Role 3 hospital patient administration section will ensure the continuity of patient records starting at Role 2 through Role 3 MTFs. The requirement to transfer patients from the Role 3 hospital to another MTF within the operational area may occur. This results from—

- Surgical backlogs.
- Current bed status or number and location of patients by diagnostic category.
- Specialty care or resource requirements.
- Tactical situation, such as MASCAL, planned movement of the Role 3 hospital, or enemy activity.

3-76. In the Role 3 hospital, attending physicians notify the hospital patient administration section of patients requiring evacuation. The patient administration section works with the medical regulating officer to request and coordinate movement authority from the MEDBDE S-3 PM branch or other approved medical regulating asset.

3-77. The medical regulating officer tracks the availability of medical specialties at each Role 3 hospital and the specific number of beds that can be assigned to that specialty. A bed report is given for the medical capabilities available at each hospital which helps designate where a patient will be evacuated to. Bed reporting is broken down into contingency bed reporting and noncontingency bed reporting. The requesting medical provider will call to verify that the receiving medical provider has accepted the patient and is aware the patient is inbound.

3-78. Medical regulating functions related to the Role 3 hospital include consolidating all evacuation requests within the hospital and forwarding an evacuation request to the next higher headquarters for action. The Role 3 hospital patient administration section is responsible for keeping the next higher echelon informed of all statuses. Additional Role 3 hospital patient administration section duties include—

- Matching existing medical capabilities with reported patient needs.
- Scheduling and arranging movement of U.S., NATO, or DOD patients and authorized beneficiaries.
- Establishing procedures regulating the evacuation of incoming and outgoing patients.
- Tracking near real time patient care data within the Role 3 hospital and regulating patients with a single DOD automated information system that supports medical regulating, PM, and patient in transit visibility.
- Know and execute the originating MTF responsibilities described in ATP 4-02.2.

SECTION V – CLASS VIII SUPPLY AND LOGISTICS OPERATIONS IN A ROLE 3 HOSPITAL

3-79. For the Role 3 hospital, MEDLOG is comprised of Class VIIIA (medical materiel), Class VIIIB (blood support), and medical maintenance. The MEDLOG assets of the Role 3 hospital are small but have an impactful mission to ensure medical supplies, blood, and medical maintenance operations are maintained for the hospital to perform its mission.

CLASS VIIIA (MEDICAL SUPPLIES)

3-80. Class VIIIA support for Role 3 hospitals is a vital part of the AHS mission and includes management of a commodity that should be adapted to specific theater health care requirements, distribution plans, and capabilities provided by theater sustainment organizations.

3-81. During port operations and reception, staging, onward movement, and integration the Role 3 hospitals should be capable of operations immediately upon initial entry of forces. It is imperative that Role 3 hospitals deploy with their complete unit basic load or have it pushed into theater for integration prior to the required date for patient reception. Therefore, MEDLOG support is included in planning for port opening and early entry operations. Port operations may include the issue of medical unit sets from Army pre-positioned stock, receipt of unit deployment packages, and integration of refrigerated and controlled substances. Early entry operations may also include reach back support to a designated installation medical supply activity.

3-82. Class VIIIA sustainment of Role 3 hospitals present the most complex medical materiel requirements and may consume materiel at a tremendous rate when providing trauma care in support of combat operations. Specialty care for burn injuries, orthopedic injuries and surgeries, and neurosurgery often require materiel and equipment that is not standard and may not have been anticipated or stocked in sufficient quantities prior to deployment. Role 3 hospitals are normally a direct customer of a MEDLOG company that can meet the unit's mission requirements.

3-83. The HHD, hospital center, field hospital (32-bed), its associated augmentation detachments, and attached specialty organizations operating within the Role 3 hospital footprint will rely on organic MEDLOG assets or on the supporting MEDLOG company for Class VIIIA support and augmentation of MEDLOG personnel, as required. For additional information on MEDLOG, refer to ATP 4-02.1.

MAJOR MEDICAL ASSEMBLAGES

3-84. Major medical assemblages or MMS are deployable medical system-equivalent Army-unique sets that consist of a grouping of medical and nonmedical items under a single stock number managed by the Army

Medical Logistics Command and are used primarily by the Army. Hospital leaders can view their assemblages on the Army Medical Logistics Command's Medical Materiel Information Portal.

3-85. Each MMS is developed specifically for each hospital unit and is designed to meet the minimum mission essential wartime requirements to sustain a range of military operations for 72 hours. Potency and dated medical materiel are not included in the MMS but is provided separately upon deployment as part of the unit deployment package. Hospital leaders should consider seven days of supply mission variable dependent.

SPECIALTY SETS

3-86. Stability and defense support of civil authorities' tasks require more definitive or tailored assemblages such as humanitarian assistance sets. There are three types of humanitarian assistance sets as follows:

- Humanitarian assistance surgical augmentation set.
- Humanitarian assistance pediatric augmentation set.
- Humanitarian assistance adult augmentation set.

3-87. These sets were established to augment the Role 3 hospital and are not intended for use as standalone sets. They contain special medical and surgical supplies and equipment that are essential for providing AHS support to a civilian population during operations where stability (as part of a global health engagement) or defense support of civil authorities are the primary focus.

3-88. The sets do not have an assigned line-item number and are not authorized by TOE or modified TOE. There is no basis of issue for these sets. Units should determine if there is a need for the sets during planning or as dictated by the Office of The Surgeon General and medical mission requirements.

3-89. Humanitarian assistance sets are managed by the Army Medical Logistics Command. The deputy chief of staff, logistics is the release authority for these sets. For additional information and questions concerning the humanitarian assistance sets refer to the Army Medical Logistics Command website.

POTENCY AND DATED MATERIEL PROGRAM

3-90. The Centrally Managed Medical Potency and Dated Materiel Program provides unit deployment packages for early deploying Role 3 hospitals departing CONUS home stations. Unit deployment package is a term coined within the Centrally Managed Medical Potency and Dated Materiel Program that represents a hospital's basic load of medical potency and dated materiel.

3-91. In the event of a deployment, this program gives the Army Medical Logistics Command the ability to push deployment packages (minus support kit items) to early deploying hospitals at home station or another location. The deployment package quantities are based on the unit assemblages it is authorized.

3-92. The Army Medical Logistics Command's Army war reserve sustainment stocks, in conjunction with theater single integrated MEDLOG manager operations, support and maintain the medical requirements of deployed units after initial issue of a deployment package. The Office of The Surgeon General is the release authority for this materiel.

3-93. Unit deployment packages are released at no cost for validated Role 3 hospitals that deploy on or before deployment plus 31 days of a declared contingency operation or conflict. There are limited amounts of unit deployment packages, so early entry units may receive them while units deploying later may not. For more information on centrally managed programs, refer to ATP 4-02.1 and the Army Medical Logistics Command website.

The following paragraphs implement STANAG 2939 and ABCANZ standard 2156.

CLASS VIIIB (BLOOD SUPPORT)

3-94. Blood support has evolved significantly with the fielding of the deployable medical system blood laboratory and shelters, tactical expandable (also known as the International Organization for Standardization shelters). These shelters are hard-walled shelters used in the deployable medical system-equipped hospitals.

Hospital personnel involved in the handling, storage, or administration of blood and blood products should receive appropriate training and education on the safe and effective use of these products.

HOSPITAL BLOOD INVENTORY MANAGEMENT AND RESUPPLY

3-95. Hospital blood inventory management and resupply operations are coordinated directly with the supporting medical detachment (blood support) or other supporting blood supply unit. The Role 3 hospital has the storage capacity to maintain—

- 480 units of Groups A, B, and O liquid red blood cells (RBC) of both rhesus (Rh) positive and negative blood types.
- 420 units of whole blood (WB) of both Rh positive and negative blood types.
- 50-100 units of Groups A, B, O, and AB fresh frozen plasma depending on how individual plasma units are packaged.
- 50-100 units of Groups A, B, O, and AB cryoprecipitate depending on how individual cryoprecipitate units are packaged.
- Five units of Groups A, B, O, and AB platelets of both Rh positive and negative blood types.

3-96. The above storage capacity is for one field hospital (32-bed). If a second field hospital (32-bed) is task-organized under the HHD, hospital center and is fully established and collocated with the first field hospital (32-bed), blood inventory management and resupply are doubled and should be a combined element.

3-97. The Role 3 hospital has the capability to conduct limited emergency fresh WB and apheresis platelet collections but does not have the capability to perform Food and Drug Administration (FDA) cleared infectious disease testing of the donor units (rapid screening methods for hepatitis, human immunodeficiency virus, and syphilis testing may be available). The decision to transfuse blood collected in a theater is governed by theater blood policy.

3-98. The relatively large quantity of blood maintained requires the use of large-capacity, blood bank-type refrigerators equipped with audible and visual temperature alarm systems. Freezers for frozen plasma storage are similarly monitored. For additional information on blood banking and transfusions, refer to TM 4-02.70/NAVMED P-5120/AFMAN 41-111_IP.

EMERGENCY BLOOD COLLECTION

3-99. With proper planning, the Armed Services Blood Program will normally be able to provide adequate inventories of blood products to meet mission requirements. However, emergency situations may arise where the amount of blood products needed to complete a transfusion exceeds the available supply. In such cases, in-theater collection and processing is required to provide apheresis platelets and fresh WB In-theater collections are not conducted using the same rigorous screening and viral marker testing as CONUS-based donor centers. When conducting emergency collections, there are two general types of non-FDA compliant blood products that may be used including—

- Blood products (usually WB or apheresis platelets) collected in theater and released for transfusion prior to the completion of required FDA testing.
- Blood products, acquired from the HN or other countries, which may not be subject to the same set of stringent standards as is required by the FDA.

3-100. Whenever emergency blood collections through walking blood banks are required, every attempt will be made to ensure that donors are pre-screened with the required FDA-licensed blood donor testing. On the day of donation, donors should be tested using Armed Services Blood Program Office or individually appointed as the Joint Blood Program Officer-approved rapid infectious disease screening test kits. A set of specimen sample tubes must also be collected for retrospective FDA-required blood donor testing using licensed methodologies. Patients receiving blood products from in-theater collection must be followed for up to one year after transfusion for infectious diseases, such as human immunodeficiency virus and Hepatitis B and Hepatitis C. For additional information on emergency blood collection including donor selection and apheresis collection, refer to TM 8-227-12/NAVMED P6530/AFH 44-152_IP.

3-101. The employment of emergency transfusion protocols involving the use of non-FDA compliant blood products should be limited to instances where FDA compliant blood products are not available or when these products cannot be delivered at an acceptable rate to sustain resuscitation of a bleeding patient. The decision

to use fresh WB that has not been screened using rapid field tests or complete FDA-approved donor testing for infectious agents is a medical decision that must be made after thorough consideration of the risks and benefits.

3-102. Most available RBC and WB units will be Rh-positive. Type O Rh-negative donors only make up approximately 15 percent of the donor population. Rh-negative RBC and WB units are preferred for females of unknown Rh type or known Rh-negative patients. Transfusing Rh-positive RBCs to any Rh-negative female can result in future complications if she develops an antibody to Rh and her future fetus is Rh-positive. The impact of antibody production in males is not significant, thus priority for Rh-negative blood is given to females if there is not enough Rh-negative blood to meet all patient needs. Rh-positive RBCs/WB should be transfused for emergency care and thoroughly documented in the patient's medical record.

3-103. Unless otherwise specified, approximately 15% of liquid RBC requested may be Rh-negative. The blood distribution system plans for 15 percent of all blood distributed in theater to be Rh-negative. This is true for all MTFs in theater. Blood donor availability may limit Rh-negative blood product production and distribution.

MEDICAL DEVICE MAINTENANCE

3-104. The Role 3 hospital health services maintenance technician and biomedical equipment specialists are responsible for field maintenance of medical devices assigned or attached to the Role 3 hospital. This includes the added workload from attached specialty organizations, such as the FRSD or PCAD, collocated with the Role 3 hospital when not forward deployed to a Role 2 medical company.

3-105. The Role 3 hospital provides limited field maintenance for augmentation and specialty organization's medical devices on an area basis. This includes medical elements assigned or attached to the hospital. The hospital should also maintain automated maintenance records on assigned medical devices and supported units in the approved medical maintenance management system according to the medical maintenance strategy established in the AO or theater.

3-106. The Role 3 hospital relies on the supporting MEDLOG company for medical device field maintenance and augmentation of biomedical equipment personnel, as required. The MEDLOG company is responsible for maintaining medical maintenance regeneration enablers and patient movement items and providing field maintenance to the Role 3 hospital in accordance with the maintenance allocation chart and medical maintenance strategy. The MEDLOG company maintains automated maintenance records on all equipment of supported medical units or elements. For additional information on medical device maintenance, refer to ATP 4-02.1 and TB Med 750-2.

SECTION VI – NUTRITION CARE OPERATIONS

3-107. The nutrition care section provides hospital nutrition care services that includes meal preparation and service to patients and staff, medical nutrition therapy, dietetic planning, patient education, and theater health promotion. The nutrition care section also advises the hospital commander on nutrition and health matters and may also advise and guide other commanders in theater on nutrition matters.

3-108. Hospital food service operations are paramount to ensure inpatients receive sufficient nutrition to prevent complications associated with malnutrition, while complying with the appropriate diet orders given their medical diagnosis. Hospital food service operations also provide staff feeding given the unique requirements of hospital staff to remain onsite or near treatment areas to maintain at or near continuous operations during conflict.

3-109. Hospitalized patients will receive three prepared hot meals and other nourishments as medically indicated. The individual operation ration is authorized for patients only in emergency situations when other rations are not available. Milk and enhancements will be added to the menu as they become available. Staff assigned to medical units will be fed according to the Service AO ration policy. However, to simplify procurement, meal preparation, and service, staff may be served the patient regular hot meal if available. For additional information refer to ATP 4-41.

STAFF RESPONSIBILITIES

3-110. The primary hospital staff members responsible for nutrition care operations are the registered dietitian and the nutrition care specialist. The hospital commander is responsible for providing military personnel for support duties in the nutrition care section.

3-111. For detailed information on the qualifications and responsibilities of the dietitian and nutrition care specialist refer to Training Circular (TC) 8-502 and DA Pamphlet (DA Pam) 611-21.

REGISTERED DIETITIAN

3-112. The registered dietitian formulates policies, develops procedures, and directs and supervises the operation of nutrition care services and the provision of comprehensive nutrition care programs in the deployable hospital. In addition, the dietician—

- Manages medical food preparation and service systems and staff food preparation services.
- Coordinates and ensures the procurement and receipt of safe, wholesome food items and rations for patients and staff and medical diet supplements for patients who require a modified diet.
- Provides nutrition health promotion programs for the military community and develops and directs nutrition education or dietary intervention programs for the military.
- Assists the physician by providing patient nutritional assessment, nutrition therapy recommendations, and medical nutrition therapy.
- Serves as a consultant at all levels of nutrition-related health, human performance and stability operations issues and medical food service operations.
- Develops, implements, and directs nutrition and medical food service education programs for nutrition care specialists and other medical personnel.
- Communicates nutrition care's workload with hospital leaders to ensure other assigned duties do not interfere with the patient care and feeding missions.

NUTRITION CARE SPECIALIST

3-113. The nutrition care specialist performs clinical dietetic functions in the dietary management and treatment of patients and staff as well as—

- Assists in the nutritional screening and assessment of individual patients.
- Assists in the health promotion program activities.
- Prepares, serves, and delivers modified and regular food items in the management of the nutritional needs of patients (across the life span and a diversity of people, cultures, and religions in support of the mission) under the supervision of a dietitian or senior nutrition care NCO.
- Monitors, requisitions, plans, and maintains inventory control of subsistence, supply, and equipment.
- Prepares and serves meals to staff.
- Serves as the vehicle operator for the nutrition care section.
- Coordinates with the field sanitation team for potable water, waste disposal, and pest control.

OTHER NUTRITIONAL CARE SUPPORT PERSONNEL

3-114. The nutrition care section has specific support needs in theater, and the dietitian and/or nutrition care specialist should be involved in the initial planning deployments to ensure nutrition care support requirements are known and are factored into planning. For example, medical rations will be required to support patients' unique feeding requirements and support personnel are needed to assist with food service to staff and sanitation duties. The number of personnel will be based on mission requirements. This support may come from Soldiers or contracted dining facility attendants.

3-115. Soldiers assigned for support duties may be unfamiliar with food sanitation principles and will require training and supervision from nutrition support personnel.

3-116. In operations where civilian-contracted dining facility attendants are available, the chief and NCO in-charge will coordinate with the contracting officer representative for the number of attendants required and shift schedules in accordance with the contract. Additionally, a dietitian and the appropriate number of nutrition care specialists should be deployed to ensure that patients' nutritional needs are met in support of

their respective diagnoses. Dietitians should coordinate with the contracting officer or the contracting officer representative to understand the contract and how the dietitian and nutrition care specialist team should coordinate for patient feeding in accordance with the performance work statement. The dietitian is not the contracting officer nor the contracting officer representative and should ensure that all matters pertaining to the contracted personnel are handled in accordance with the guidance provided to avoid violating the contract or initiating an unauthorized commitment of government funds. Medical diet supplements may not be included in the contract and may require procurement through Class I or Class VIIIA supply channels.

FEEDING OPERATIONS AND PROCUREMENT

3-117. Dietitians and senior nutrition care specialists should coordinate with hospital S-4 to ensure procurement of the requisite food, beverage, hospital dietary supplements, and cleaning and sanitation supplies to meet patient and staff feeding, food safety, and sanitation requirements across the full range of military operations and training exercises. This will often require coordination with the Army Food Program representative (assistant chief of staff, logistics) and the senior theater or installation food advisor to ensure procurement of military rations, commercial food and beverages, medical dietary supplements, and cleaning and sanitation supplies through approved sources.

FEEDING OPERATIONS CONSIDERATIONS AND CHALLENGES

3-118. The common nutrition-related issues presented in field feeding include dehydration, inadequate energy and carbohydrate intake and gastrointestinal complaints. Even an individual that is mildly dehydrated (body water losses amounting to as little as two percent of body weight) will have impaired performance, reduced appetite, and sluggishness. To prevent diarrhea and constipation, advise Soldiers to hydrate, choose high-fiber foods, eat wholesome foods maintained in sanitary conditions, and avoid eating or drinking locally produced foods unless approved by veterinary personnel. Stress the value of consuming military rations that are designed to provide for nutritional requirements.

3-119. In a contract food service dining facility, the dietitian and nutrition care specialist retain responsibility for ensuring that patients receive meals specific to their diet order. The dietitian and/or nutrition care specialist coordinates between the nursing staff of each ward, nutrition care section personnel, and appropriate contractor for following patient diet orders and delivering patient meals. In a case where the contract does not require the contracted personnel to deliver meals to patients, the nutrition care section should—

- Set up an area close to the wards to assemble patient meals and nourishments with the following equipment: table, serving supplies, refrigerator, blender, microwave (if power supply can support), rodent-proof containers, shelves, and sanitation supplies (gloves and cleaning supplies).
- Use the contractor's daily menu and make modifications for patient diets.
- Turn in meal tickets to the contract staff to fill the diet orders.
- Establish a system to order and pick up food from the contract dining facility. Carry the covered food from the contract facility to the hospital in boxes or insulated containers. Assemble the patient trays and deliver to the patient.
- Establish a method for disposing of patient trays and other waste.

The following paragraph implements STANAG 2937.

MILITARY RATIONS

3-120. Unit group rations and field packaged meals are designed to simplify and streamline the process of providing the highest quality meals in the field. They integrate modules of heat and serve (formerly known as T-Rations and A-Rations) with quick-prepared, user-friendly brand name commercial products. The unit group ration is used by unit food service facilities to sustain groups of personnel during worldwide operations. Refrigeration is required with some unit group rations. Menus and recipes are included with each module. The heat and serve module feed up to 50 Soldiers and requires separate supplements and enhancements of milk, bread, fresh fruits and vegetables, and cold cereal to provide a complete meal averaging 1,450 calories per serving. The A-ration module includes perishable items that consume refrigeration, transportation, fuel,

equipment, and potable water requirements. The A-ration module serves up to 50 Soldiers a high-quality meal and provides 1,450 calories and are complete when served with bread, salad, fruit, and cereal. For more information regarding military rations, refer to ATP 4-41.

3-121. Medical diet supplements are used in combination with the unit group ration to prepare modified patient diets to meet the requirements for high-calorie-high-protein, pureed liquid, full liquid, and clear liquid diets. The purchase and resupply of these items should be coordinated during the hospital's predeployment phase.

3-122. Individual operation rations are individually packaged meals designed for issue, either in single meals or in multiples of three for a complete ration and are only authorized for patients in emergency situations when other rations are not available. The components are packaged in flexible envelopes with flameless ration heaters. Each meal provides an average of 1,300 calories, 169 grams of carbohydrate, 41 grams of protein, and 50 grams of fat. There are 24 menus of which four are vegetarian menus. Each box of 12 ready to eat meals has two vegetarian menu meals. Under emergency conditions the meals and the medical diet supplements can be combined to meet the patient feeding requirements for high-calorie-high-protein, blenderized liquid, full liquid, and clear liquid diets.

CLINICAL NUTRITION OPERATIONS

3-123. The clinical dietetics involves a systematic process of providing nutrition care to patients. The process begins upon admission and ends at discharge. The admitted patient's physician writes a diet order. Nursing staff updates the ward diet roster to reflect the changes and new patients on DA Form 1829 (*Hospital Food Service - Ward Diet Roster)*.

3-124. The nutrition care personnel then—

- Complete the patient nutrition screening within 24-hours of admission or encounter and document it in the medical record. Results of the nutrition screening determine the medical nutrition therapy protocol.
- Interview patient for food preferences, food tolerances, food allergies, and cultural or religious practices that impact food consumption.
- Create a menu for each patient.
- Identify nourishment and forced fluid requirements to adequately stock.
- Deliver meals and nourishments to patients.
- Monitor changes to patient diet orders.
- Conduct daily follow-ups on high and medium risk patients and on all patients every five to seven days, patient load permitting.

CLINICAL DIETETICS REFERENCES

3-125. Normal nutrition and assessment are addressed in the Academy of Nutrition and Dietetics Nutrition Care Manual. It is not the intent of this section to repeat any of the information from the nutrition care manual (NCM). This section provides other sources of information that enhances the application of the NCM procedures for use in a field setting with limited types of food items available to prepare patient meals.

3-126. For more information on military dietary reference intakes, refer to AR 40-25/OPNAVINST 10110.1/MCO 10110.49/AFI 44-141. The military dietary reference intakes are intended for healthy and fit Soldiers performing their mission. The military dietary reference intakes are provided in the currently fielded operational rations. Consuming the daily ration provides Soldiers with essential calories, vitamins, and minerals.

NUTRITION AND DISEASE

3-127. Dietitians use the nutrition care process to provide comprehensive medical nutrition therapy to patients according to their medical diagnoses and medical histories. This process involves four interrelated steps that dietitians use to evaluate each patient requiring a dietitian's care consisting of nutrition assessment, nutrition diagnosis, nutrition intervention, and monitoring and evaluation. The medical nutrition therapy for specific conditions and diagnoses are defined in the NCM. This publication provides evidence-based, disease specific guidance regarding the diagnosis, related physiology and nutrition implications, examples of food

selection, and diet modifications. During foreign humanitarian assistance situations dieticians and nutrition care specialists may be asked to complete nutrition assessments for the local population.

PATIENT AND STAFF FEEDING POLICY

3-128. The army ensures that patients and staff receive proper nutrition through its patient and staff feeding policy. Commanders of medical units provide appropriate nutrition care to patients, with dietitians and nutrition care specialists playing a key role in medical field feeding. Hospitalized patients receive three hot meals a day, along with other nourishments as medically indicated, and staff members are fed using the same standard when possible. The nutrition care staff works to account for all rations received and used and is prepared to adapt to emergency situations and diverse population needs, such as those encountered in foreign humanitarian assistance deployments.

Patient Feeding Policy

3-129. AR 30-22, Army Food Program states that commanders of medical units organized under a TOE will provide appropriate nutrition care to patients, and that dietitians or nutrition care specialists are responsible for providing for medical field feeding. ATP 4-41 further states that hospitalized patients will receive three hot meals a day and other nourishments as medically indicated. In emergency situations where other rations are not available, individual operational rations may be given to patients; however, milk and enhancements will be added to the menu as soon as they are available.

3-130. Nutrition care staff should account for rations received and rations used. For additional guidance on field feeding and Class I operations, refer to ATP 4-41. For example, the unit group ration and medical supplements ration items should be accounted for on the medical field production schedule or on the DA Form 3034 (*Production Schedule)*. The inpatient census report prepared by patient administration division is the "head count sheet" for inpatients.

Staff Feeding Policy

3-131. In accordance with AR 30-22 and DA Pam 30-22, when personnel and supply resources permit, the hospital staff will be fed using the patient standard of three hot meals per day. When personnel and supplies do not permit, the hospital staff members follow operations ration policy which is individual field ready meals for up to 21 days; authorized enhancements or alternate rations should be provided after 21 days.

3-132. The nutrition care staff should ensure appropriate accountability of rations using the production schedule and the DA Form 2970 (*Headcount Report)*. All Class I should be appropriately accounted for per ATP 4-41.

DIET ORDERS

3-133. The most common diet orders on a deployment are regular, high-calorie-high-protein, clear liquid, and full/pureed liquid. Use available rations and medical diet supplements to prepare other therapeutic diets listed in the NCM.

3-134. Foreign humanitarian assistance deployments will be in support of civilians (from infants to the very old) for whom a wide variety of nutrition and dietetic needs will be required. Nutrition care personnel should be prepared to respond to the nutrition needs of this diverse population with potentially complex needs.

THERAPEUTIC DIET PREPARATION AND RATIONS

3-135. Therapeutic diets are prepared to accommodate patients' diet orders. Patient meals are prepared to meet the medical condition(s) and cultural, religious, allergy and intolerance factors to the extent possible. The NCM is the primary reference for therapeutic diets. A copy of the manual should be printed prior to deployment to ensure the reference is available in the event internet access is unreliable or unavailable in theater. Therapeutic diet menu items come from the unit group rations, medical diet supplements, meal enhancements, enteral feeding formulas (if available) and individual field ready to eat rations.

3-136. Medical diet supplements, used in combination with the individual operation rations and unit group rations provides commercial semi perishable food components required to prepare therapeutic diets. Each medical diet supplement supports 50 patients for a 15-day period based on the following diet mix: 28 regular,

five high-calorie, high-protein, 11 pureed liquids, and six clear liquids. The medical diet supplement is ordered from Defense Logistics Agency Troop Support Subsistence with the national stock number: 8970-01-470-5077. If necessary, individual components may be ordered separately. Enteral feeding products can be ordered through the medical supply section of the hospital. Coordination for ordering components of the medical diet supplement and enteral feeding products should be done prior to any exercise or deployment.

NUTRITION DURING STABILITY OPERATIONS

3-137. It is important to understand the diseases and health risks inherent to each country in which deployed and countries that share a border. It is also important to understand the dietary habits and the culture, both of which will benefit the advice and guidance provided to the commander during foreign humanitarian support missions. When contracting agents hire local civilians to work in the food service facility, there may be additional health risks to the supported population. Preventive medicine and veterinary personnel will have detailed information about endemic and epidemic diseases and should be consulted. *Preventive medicine* is the anticipation, communication, prediction, identification, prevention, education, risk assessment, and control of communicable diseases; illnesses; and exposure to endemic, occupational, and environmental threats. Also called PVNTMED. (JP 4-02).

3-138. Invaluable information on diseases, injuries, and nutritional requirements in areas of deployment can be obtained from the National Center for Medical Intelligence, U.S. Army Research Institute of Environmental Medicine, U.S. Army Medical Research Institute of Infectious Diseases, U.S. Army Public Health Center, World Health Organization, Centers for Disease Control and Prevention, the Center for Army Lessons Learned, and possibly the country's Ministry of Health.

SECTION VII – HOSPITALIZATION SUPPORT TO OPERATIONS

3-139. It is important for hospital center and field hospital commanders, leaders, and planners to remain situationally aware and connected to the maneuver plans to be prepared for any situation. This includes knowing when units are preparing for and engaged in all operations. The Role 3 hospital then overlays the 6 AHS principles with the OPORD to ensure the hospital is nested with the plan and is in the right place at the right time and appropriately staffed and equipped for the unique injuries that may accompany these types of operations. For more information on operations, refer to ADP 3-0, ADP 3-90, FM 3-0, FM 3-94, ATP 3-91, ATP 3-92, ATP 3-93, and other applicable OE or operational 3-series publications.

3-140. This section covers hospitalization support to offense, defensive, stability, Defense Support of Civil Authorities (DSCA) operations. It provides brief discussions and references for hospitalization units operating in a multitude of operations that include reconstitution, CBRN environments, urban, subterranean, MASCAL, prolonged care, detainee, and deceased personnel.

HUMAN PERFORMANCE OPTIMIZATION AND COMMUNITY NUTRITION

3-141. The military dietary reference intakes are intended for energy needs for personnel working in a temperate climate and may need to be adjusted based on the operating environment. They are met in the currently fielded operational rations. For more detailed information about the military dietary reference intakes, refer to AR 40-25/OPNAVINST 10110.1/MCO 10110.49/AFI 44-141.

3-142. Environmental conditions can impact Soldier food and beverage consumption needs. When energy needs are higher, such as in cold weather or high-altitude environments, performance can diminish if energy intake does not meet Soldier needs. Hydration needs are also higher in cold and high-altitude environments. Select information is highlighted in this appendix for nutrition demands in cold, hot, and high-altitude operations. For a more complete account of nutritional demands in these environments use the following resources:

- The U.S. Army Research Institute of Environmental Medicine review of their published technical notes on nutrition during military operations.
- The Human Performance Resource by Consortium for Health and Military Performance.
- Nutrition Care Manual website.

- U.S. Army Combat Capabilities Development Command Soldier Center, Soldier Sustainment Directorate, Combat Feeding Division.

3-143. Rations available for military operations in a cold environment include the meal, cold weather ready to eat meal, the most common individual ration that Soldiers receive during cold-weather operations. It is a restricted ration, nutritionally incomplete and intended for use over short periods, up to ten days. Each meal provides an average of 1,600 calories. The meal, cold weather will not freeze. There is also a compact, eat-on-the-move assault ration. It substantially reduces the weight, cube, load, and preparation time, enabling Soldiers to carry enough subsistence for several days for periods of high mobility. The assault ration contains an average of 2,900 calories per day and is also a restricted ration, nutritionally incomplete, and intended for short periods.

3-144. The nutritional concerns in hot environments include dehydration and inadequate food intake. Individual appetites may be suppressed during the first eight days of exposure to a hot environment. To maintain adequate sodium or salt intake, individuals should eat at least two meals a day. To prevent dehydration, individuals should follow the work/rest and water consumption guide, refer to ATP 4-25.12. Carbohydrate-electrolyte beverages are justified for use in hot environments in specific circumstances. Carbohydrate-electrolyte beverage criteria is provided in AR 40-25. Further details on carbohydrate-electrolyte-beverages are outlined in Technical Bulletin Medical (TB Med) 507. If mission demands support the need, the modular operational ration enhancement, hot weather pack, augments daily operational rations with additional components, providing approximately 1,100 calories per pack.

3-145. Nutritional concerns in high-altitude operations include weight loss due to acute mountain sickness and higher energy needs, dehydration, and gastrointestinal complaints. If mission demands support the need, the modular operational ration enhancement, high altitude/cold weather pack augments daily operational rations, providing additional components for high altitude and cold weather environments, providing approximately 1,100 kilocalories per pack.

3-146. Dietary supplements are not regulated and may contain ingredients that can cause adverse effects. Products marketed for performance enhancement and weight loss are two of the most consumed supplement types for Soldiers. Performance enhancement and weight loss dietary supplements may contain stimulants that can cause dehydration, dizziness, palpitations, high blood pressure, stroke, and heart attack. Furthermore, exercise, dehydration, caffeine, and some medications (to include over-the-counter medications) compound the effects from these products, potentially increasing the risk and severity of adverse side effects. For guidance on nutrition supplements, refer to the Operation Supplement Safety (Consortium for Health and Military Performance), the Human Performance Resource Center, and the Sports NCM.

3-147. Soldiers' nutritional health can be altered in a deployed environment. Dietitians and nutrition care specialists can promote nutritional health through surveillance of mission demands and ration provision to ensure Soldiers' nutrient needs are met per AR 40-25, especially if restricted rations are consumed. Nutrition education can be provided based on surveillance of Soldiers' dietary supplement consumption, adherence to Army body composition standards, dehydration trends, and other topics as relevant to the hospital and Soldiers in the AO. Dietitians may collaborate with other medical providers and chaplains to identify issues or concerns and develop appropriate education campaigns.

DEFENSIVE OPERATIONS

3-148. Defensive operations defeat enemy attacks, gain time, economize forces, hold key terrain, or develop conditions favorable for offensive or stability operations. Although offensive operations are usually required to achieve decisive results, it is often necessary, even advisable, to defend. Defensive operations alone do not normally achieve a decision unless they are sufficient to achieve the overall political goal, such as protecting an international border.

CHARACTERISTICS OF THE DEFENSE

3-149. Defending commanders strive to regain the initiative from attacking enemy forces. This is a primary feature of the defense. Disruption, flexibility, maneuver, mass and concentration, operations in depth, preparation, and security are all defensive characteristics used by commanders to regain the initiative. Their

ability to synchronize their operations greatly improves the probability of a successful defense. Successful defenses share some important characteristics. They include:

- Disruption – deceiving or destroying enemy reconnaissance forces, breaking up combat formations, separating echelons, and impeding an enemy force's ability to synchronize its combined arms.
- Flexibility – developing plans that anticipate a range of enemy actions and allocate resources accordingly.
- Maneuver – achieving and exploiting a position of physical advantage over an enemy force.
- Mass and concentration—creating overwhelming combat power at specific locations to support the main effort.
- Depth – engaging multiple enemy echelons, enemy long-range fires, sustainment, and C2.
- Preparation – preparing the defense before attacking enemy forces arrive.
- Security – conducting security, protection, information activities, operations security, and cyberspace and electromagnetic warfare tasks.

TYPES OF DEFENSIVE OPERATIONS

3-150. There are three types of defensive operations. These operations have significantly different concepts and present different problems. Units consider each independently when planning and executing the defense. Although the names of these types convey the overall aim of a selected operation, most defenses at division and higher echelons combine elements of all three types. The types of defensive operations are:

- Area defense.
- Mobile defense (defense of a linear obstacle, reverse slope defense, and perimeter defense).
- Retrograde (delay, withdraw, and retirement).

3-151. Hospital planners are actively considering key factors to ensure effective hospitalization support during defensive operations. As part of their TACSOP, hospital centers are developing strategies to provide medical support in various defensive scenarios. Some key planning factors to consider include:

- The hospital's ability to support different types of defensive operations, such as:
  - Area defense versus mobile defense
  - Delay, withdrawal, or retirement
- The impact of different division types on hospitalization support, including the role of a Role 3 hospital.
- The feasibility of setting up multiple field hospitals in separate locations, and the considerations for consolidating hospitals when transitioning to offense or stability operations.
- The priority of hospitalization within sustainment and transportation plans
- The potential for indirect fire injuries and delayed evacuations, including:
  - Wound types, such as significant injuries caused by large indirect fire pieces of shrapnel and concussive injuries
  - The need for engineer support for patient bunkers
  - Delaying evacuation until it is feasible
  - Ensuring hospital site selection includes the criteria of elevated terrain features
- The need for Role 3 hospitals to prepare for a surge of patients when evacuation windows open, including concentrating on clearing beds to accommodate the influx of patients.

OFFENSIVE OPERATIONS

3-152. The offense is the decisive form of war. The offense is the ultimate means commanders have of imposing their will on enemy forces. Army forces conduct the offense to defeat and destroy enemy forces as well as gain control of terrain, resources, and population centers. Commanders may also conduct the offense to deceive or divert an enemy force, develop intelligence, or hold an enemy force in position. Commanders seize, retain, and exploit the initiative when conducting the offense. Specific operations may orient on an enemy force or terrain objective to achieve a position of advantage. Taking the initiative from an enemy force requires the conduct of the offense, even in the defense. For additional information on offensive operations refer to ADP 3-90.

3-153. The main purposes of the offense are to defeat or destroy enemy forces and to gain control of terrain, resources, or population centers. Additionally, commanders conduct the offense to—

- Secure decisive terrain.
- Deprive the enemy of resources.
- Gain information.
- Fix an enemy force in position.
- Disrupt an enemy force's attack.
- Set the conditions for successful future operations.

3-154. The offense supports friendly operations in the OE. Offensive operations destroy, dislocate, disintegrate, or isolate an enemy force.

CHARACTERISTICS OF THE OFFENSE

3-155. Audacity, concentration, surprise, and tempo characterize the offense. Commanders maneuver forces to advantageous positions before an operation. To shape their decisive operation, they initiate selective contact with enemy forces. This may determine the outcome of the major operation, battle, or engagement. Decisive operations capitalize on the successful application of the characteristics of the offense. Successful offenses share these characteristics:

- Audacity – the ability to assume risk to create opportunity with bold action.
- Concentration – orchestrating forces or effects to create and exploit opportunity (concentrating effects is called "mass.").
- Surprise – taking action that catches enemy forces off guard.
- Tempo – maintaining a pace of operations that is faster than the enemy's, but not so fast that it cannot be sustained for as long as necessary to achieve all assigned objectives.

TYPES OF OFFENSIVE OPERATIONS

3-156. The four types of offensive operations are movement to contact, attack, exploitation, and pursuit. The types of offensive operations describe friendly force arrangements by purpose. The types of offensive operations describe the general sequence of the offense and recommended formations. The purpose discriminates one from another. The four types of offensive operations are—

- Movement to contact which may result in a meeting engagement.
- Attack (ambush, counterattack, raid, and spoiling attack).
- Exploitation.
- Pursuit (frontal and combination).

3-157. Within the context of the maneuver commander's operational framework and the general phasing scheme, hospitalization operational planning considerations should focus on applying the six AHS principles within the construct of the offensive scheme of maneuver. Some planning factors for providing hospitalization in support of offensive operations to consider include:

- As part of the hospital's TACSOP, does the hospital center have templated OPLANS/OPORDS for each type of offensive operation that can be quickly revised during the planning process.
  - How would the hospital center support a movement to contact over long distances?
  - What unique hospitalization considerations exist in supporting an attack versus an exploitation or pursuit?
  - What changes, if any, exist when a Role 3 hospital is in support of different types of divisions (joint force entry, penetration, or standard)?
- If the hospital center has two field hospital does the OE and sustainment plan support only setting up one field hospital to allow the second to remain packed and ready to move in support of offensive gains and to maintain proximity to the supported force?
- What hospitalization considerations are required to consolidate gains or transition to defensive operations, stability operations, or back to post-conflict competition?
- Know the theater evacuation policy and make every attempt to clear beds whenever possible.
- What priority does the hospital center fall within the sustainment and transportation plans in the offense?
  - The hospital may have to rely on sustainment for transportation assets to maintain proximity.

  - Planning for water (potable and removal of gray) and fuel is crucial.
  - What is the mortuary affairs plan for the hospital?
- Direct fire injuries may be more prevalent in the offense, how does this affect hospitalization.
  - Wound types (more direct fire penetrating injuries).
  - Delaying evacuation until such a time it is feasible to evacuate.
- When Role1 and Role 2 are conducting prolonged care operations and evacuation rearward is delayed, the Role 3 hospital should concentrate on clearing beds (if possible) to prepare for the large surge of patients when evacuation windows of opportunity open and an influx of patients are evacuated to the Role 3 hospitals. Planning and disseminating triage priorities should be considered if patient demand outstrips resources and supplies, especially when the Role 3 hospital is forced to delay evacuation due to the current OE.

STABILITY OPERATIONS

3-158. At some point during an operation, units transition from one phase of the major operation or campaign plan to another and begin executing a sequel to their previous order. The successful conduct of stability operations may be the decisive operation to a major operation or campaign. The transition to a focus on the conduct of stability operations from the conduct of the offense cannot be an afterthought. To assist in this transition to a stability focus, units continuously consolidate gains. Commanders actively consider activities necessary to consolidate gains while seeking to achieve their end state. It is the final exploitation of tactical success.

3-159. Stability operations are part of every operation. However, the proportion of stability operations, in relation to offensive and defensive tasks, may change. Whether an operation is a peace operation preventing conflict or a large-scale combat operation, forces will always integrate offensive, defensive, and stability operations. For example, in a peace operation, forces may still perform offensive tasks such as raids to capture war criminals. Conversely, during large-scale combat operations, forces perform stability tasks to control captured areas or provide emergency essential services. For more information on stability, refer to DODD 3000.05 and FM 3-07.

3-160. Military forces provide support to facilitate the completion of tasks for which the HN is normally responsible. Typically, these tasks have a security component ideally performed by military forces. However, military forces sometimes provide logistics, medical, or administrative support to enable the success of civilian agencies and organizations. These tasks generally fall into one of three categories, representing the collective effort associated with an operation focused on stability. Task for which—

- Military forces retain primary responsibility.
- Civilian agencies or organizations likely retain responsibility, but military forces are prepared to execute until transition can safely occur with those organizations.
- Civilian agencies or organizations retain primary responsibility.

3-161. The primary stability tasks are:

- Establish civil security.
- Establish civil control.
- Conduct security cooperation.
- Restore essential services.
- Support to governance.
- Support to economic and infrastructure development.

3-162. Medical support and medical capacity building are major contributors to the successful execution of the primary stability tasks, and in some cases may be the primary tools used in shaping the environment, as military medical assistance is often more readily accepted by the affected nation. When conducting stability tasks, hospitalization support should be conducted in consonance with the combatant commander's theater engagement strategy. Medical planners should be involved early in the planning process to ensure hospitalization is coordinated with the supporting assistant chief of staff, civil affairs operations (G-9), the MEDBDE civil affairs S-9 section (if deployed), and UAP to ensure that all stability tasks conducted are part of the regional strategy for the AO. For more information on the medical aspects of stability operations, refer to DODI 2000.30 and ATP 4-02.42. Hospitalization in support of each stability scenario will differ. In many stability scenarios, the medical element is constrained in size, necessitating that some services (such as

hospitalization) be provided outside of the AO. As the medical element is normally task organized for the specific mission, AHS support resources or modules that are normally only deployed with elements of a hospital center may be included in the task organization (even though the full hospital unit may not be deployed). For stability operations, hospitalization planners should consider the following planning factors:

- The optimal location for the Role 3 hospital, taking into account the PAR and METT-TC (I) factors, to ensure effective and efficient medical support.
- The eligibility of care determination, as outlined in the HSS annex (annex Q if operating jointly), which may change significantly during stability operations.
- The Role 3 hospital's augmentation of affected-nation capabilities, prioritizing the hospitalization of U.S. armed forces patients while supporting the local population.
- The status and capabilities of affected nation and UAP hospitals in the AO, including:
  - Operational status.
  - Communications systems and compatibility with the Role 3 hospital.
  - Staffing levels and types of medical providers.
  - Hospitalization functions and capabilities, such as surgical, inpatient, and outpatient services.
  - Medical device status and maintenance strategy.
  - Class VIII inventory and management.
- The security plan for the hospital, ensuring the safety and security of patients, staff, and equipment.
- The provision of basic health care and hospitalization support for various groups, including former combatants, belligerents, dislocated civilians, and detainees, as part of the initial response to establish civil security.
- The maintenance of situational awareness regarding the efforts of other UAP organizations operating in the area, to avoid duplication, encourage synchronization of support, and ensure proper use of all available resources.
- The dissemination of medical intelligence considerations, including general threat, health threat, and medical intelligence, to hospitalization leaders and staff.
- The training and knowledge of hospital personnel regarding health threats and diseases prevalent in the region, as well as language, social, religious, cultural, and political factors that may impact the provision of hospitalization.
- The availability of interpreters and other resources to support effective communication and care.
- The unit's TACSOP, OPLAN, or OPORD should address:
  - Expense reimbursement for support to stability tasks.
  - Reimbursement for medical training or hospitalization services provided.
  - Approval processes for transferring or issuing medical supplies and equipment to the affected nation.
  - Coordination with the chaplain or unit ministry team regarding religious-based dietary restrictions for hospitalized patients.

DEFENSE SUPPORT TO CIVIL AUTHORITIES OPERATIONS

3-163. DSCA is the process by which U.S. military assets and personnel can be used to assist in missions normally carried out by civil authorities. DSCA can be used for assistance for domestic emergencies, cyberspace incident response, law enforcement support, and other domestic activities or from qualifying entities for special events. DSCA includes support to prepare, prevent, protect, respond, and recover from domestic incidents. DSCA is provided in response to requests from civil authorities and upon approval from appropriate authorities. DSCA is conducted only in the U.S. homeland. In support of DSCA tasks. Army forces assist in responding to crises and relieving suffering by providing essential support services and specialized resources when the capabilities of civil authorities have been exceeded. For information on the DSCA, refer to DODD 3025.18, JP 3-28, and ADP 3-28. While DSCA tasks may require various types and levels of support, the primary purpose of such missions is to save lives, alleviate suffering, and protect property. The four key Army DSCA tasks are to provide—

- Support for domestic disasters.
- Support for domestic CBRN incidents.
- Support for domestic civilian law enforcement agencies.

- Other designated support.

3-164. Other DSCA missions include wildland firefighting, oil and hazardous material response, nuclear and radiological incident support, animal and plant disease response, medical countermeasures distribution, pandemic influenza and infectious disease response, mass migration, and civil disturbance operations.

3-165. While every domestic support mission is unique, four defining characteristics shape the actions of commanders and leaders in any mission. These characteristics are that—

- State and federal laws define how military forces support civil authorities.
- Civil authorities are in charge and military forces support them.
- Military forces depart when civil authorities can continue without military support.
- Military forces should document costs of all direct and indirect support provided.

3-166. During DSCA, hospitalization support requirements will be tailored to meet the specific mission. Determining factors include the—type, severity, and geographic location of the incident; capabilities available within the local community; health threat; magnitude of the operation (local versus state or federal); and the anticipated patient workload. The support provided can range from routine hospitalization (essential care) support for military personnel, to hospitalization forces employed in support of law enforcement operations, and on-site triage, treatment, and hospitalization or evacuation of disaster victims. Specific guidance, authority, and legal advice should be obtained before beginning operations to ascertain eligibility or care criteria for medical treatment and hospitalization, what specific support can be provided, and where funding and/or reimbursement can be obtained. Within the context of the joint task force civil support commander's intent and vision, hospitalization operational planning considerations should focus on applying the six AHS principles within the construct of providing hospitalization for DSCA operations. For more information on the medical aspects of DSCA, refer to ATP 4-02.42. Some planning factors for providing operational Role 3 hospitalization in support of DSCA include:

- The hospital center's templated OPLANS/OPORDS for hospitalization in support of the four DSCA tasks, which can be quickly revised during the planning process to address various scenarios, such as CBRN events, natural disasters, law enforcement support, and pandemics.
- The eligibility of care determination, which outlines the medical rules of eligibility for patients receiving care at the Role 3 hospital.
- The priorities of triage, which dictate the order in which patients receive medical attention when hospital supplies and capabilities are overwhelmed.
- The Role 3 hospital's position within the sustainment and transportation plans, including:
  - Planning for food, water, and fuel to support hospital operations.
  - Contracts for transportation and sustainment, such as food, water, and fuel, in case of limited deployable assets.
  - Medical maintenance strategy to ensure equipment functionality.
  - Class VIII resupply and delivery of blood products, including contracts for procurement and transportation.
  - Mortuary affairs plan for the hospital.
- The status and capabilities of civilian hospitals in the AO, including:
  - Operational status.
  - Communications systems compatibility with the Role 3 hospital.
  - Staffing levels and types of medical providers.
  - Hospitalization capabilities and functions, such as surgical, inpatient, and outpatient services.
  - Medical device status and maintenance strategy.
  - Class VIII inventory and management.
- The feasibility of setting up the Role 3 hospital near an established civilian hospital or in another location, dependent on METT-TC (I) and PAR factors.
- The deployment and utilization of Forward Resuscitative Surgical Teams (FRSTs), including the decision to keep them with the Role 3 hospital or move them to a civilian hospital with limited surgical capabilities.
- The hospitalization consolidation of gains or transitions, which involves planning for the transition of patients and medical care from the Role 3 hospital to other medical facilities or civilian hospitals.

- The Role 3 hospital's support for various DSCA tasks, including law enforcement, pandemic response, and CBRN event response, which requires tailored medical planning and execution.

3-167. Hospitalization in the generating force consists of fixed military MTFs (Role 4) capable of providing definitive care to conclusively manage a patient's condition, which normally leads to rehabilitation, RTD, or discharge from the Service. Within the NDMS, definitive medical care begins when disaster victims are admitted to a participating hospital. Once admitted, federal coordinating centers monitor the status of NDMS patients treated at associated MTFs. The federal coordinating centers also coordinate fiscal information to support the processing of financial claims for reimbursement.

3-168. Definitive care within the DOD includes all the capabilities embedded in the Military Health System, plus extraordinary preventive, restorative, and rehabilitative capacity that does not exist in facilities with lesser capabilities of care. Hospitals within the continental U.S. support base represent the most definitive medical care available within the Military Health System and are expanded to include Department of Veterans Affairs and civilian hospitals to meet the requirements of the NDMS. During DSCA, Role 3 hospitals designated as federal coordinating centers may be activated/alerted to provide this support. For the additional information on the NDMS, refer to the Administration for Strategic Preparedness and Response website.

RECONSTITUTION OPERATIONS

3-169. *Reconstitution* consists of those actions that commanders plan and implement to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources (ATP 3-21.20). Reconstitution may include removing a unit from combat, assessing it with external assets, reestablishing a chain of command, training a unit for future operations, and reestablishing unit cohesion. Reconstitution operations include reorganization and regeneration. For more information on reconstitution, refer to ATP 3-94.4 and ADP 3-90.

3-170. The Army has not been prepared to conduct reconstitution as a part of large-scale combat operations in many years. Role 3 hospitals will play a key part in the theater reconstitution plan. The hospital should focus on returning Soldiers to duty to support the reconstitution plan. Prioritizing treatment should be centered on returning Soldiers to duty within the established theater evacuation policy. Every Soldier will be important to mission accomplishment and every one that can be kept in theater and returned to the unit is one less replacement that should be taken from elsewhere.

3-171. Reorganization is the action to shift resources within a degraded unit to increase its combat effectiveness. Commanders use reorganization to restore capability and improve HSS effectiveness within a degraded unit. Reorganization is possible at tactical level.

3-172. Regeneration is the rebuilding of a unit. It requires large-scale replacement of personnel, equipment, and supplies. Medical units also undergo regeneration and are rebuilt through large-scale replacement of personnel, equipment, and Class VIII resupply. Regeneration requires support from higher, is time sensitive, and more resource intensive.

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR OPERATIONS

3-173. The Role 3 hospital is equipped for and should be prepared to establish a PDS in proximity to the hospital. The hospital is not staffed to conduct patient decontamination operations alone and require nonmedical augmentation from supported units. For more information on HSS in a CBRN environment and how to establish and operate a PDS refer to ATP 4-02.7/MCRP 4-11.1F/NTTP 4-02.7/AFTTP 3-42.3.

3-174. Leaving equipment covered until needed for operations will help protect materiel in a CBRN environment. Hospital leaders should establish a robust CBRN portion to their TACSOP. CBRN equipment should be inspected periodically in accordance with appropriate technical or owner's manuals and the unit TACSOP. Chemical-biological protective shelters are essential to continue the support role in chemical and biological OEs.

CHEMICAL

3-175. Initial triage, EMT, and decontamination are accomplished on the dirty side of the PDS hot line. Life-sustaining care is rendered, as required, without regard to contamination. Secondary triage, treating trauma patients, and patient disposition are accomplished on the clean side of the hot line. When treatment is provided in a contaminated environment outside of a protective shelter, the level of care may be greatly reduced because medical personnel and patients are in MOPP gear. However, lifesaving procedures still must be performed.

3-176. Providing emergency services will be complicated by several factors:

- Varying levels of treatment received prior to arrival at the Role 3 hospital.
- Combined conventional wounds and CBRN agent effects.
- Heat-related complications associated with wearing MOPP.
- Increased numbers of psychological casualties who should be triaged quickly to allow for treatment of those who need emergency management (this includes triaging the worried well).
- The need to have EMT personnel at the patient drop-off point to conduct triage.
- The potential of having to triage and provide patient care while in MOPP gear.
- Reduced ability for EMT personnel to communicate between the various phases of the decontamination/treatment process.
- The need to provide supervision/guidance to the nonmedical decontamination augmentation personnel from the supported units.

3-177. Patient protection requires that patients have adequate individual protection. Each patient's protective mask must be available and serviceable. Role 3 hospital personnel should check all patients' masks as soon as they arrive. If a patient came from a contaminated area, the mask must be decontaminated, and the filter changed.

3-178. Protection of medical materiel, especially expendable supplies, requires covers and barriers. All materiel not required for immediate use is kept in shipping containers, medical chests, or under cover (such as tentage, plastic sheeting, or tarpaulin) for protection against particulate or liquid hazard. Protection against vapor hazards may require multiple barriers through which the vapor must penetrate. For example, a situation where intravenous solutions are in their individual plastic bags, in the cardboard shipping box, on a covered pallet, or in a military van container represents four barriers against the vapor hazard. These principles should be used to the maximum extent practical. For more information on the treatment of chemical warfare agent casualties and conventional military chemical injuries, refer to ATP 4-02.85/MCRP 3-40A.1/NTRP 4-02.22/AFTTP(I) 3-2.69.

BIOLOGICAL

3-179. A biological agent attack (such as the use of bomblets, rockets, spray or aerosol dispersal, release of arthropod vectors, and contamination of food and water) may be difficult to recognize. While such biological agents may eventually produce large numbers of casualties, initial casualties may be initially smaller at the Role 3 hospital.

3-180. Medical surveillance is essential. Frequently, biological agent exposure does not have an immediate effect on exposed personnel. All hospital personnel must monitor for biological agent indicators such as increases in disease incidence or fatality rates, sudden presentation of an exotic disease, or other sequential epidemiological events. Most biological agent patients initially present with common nonspecific symptoms such as low-grade fever, chills, headache, malaise, and coughing. A higher rate of patients than normal based on the number and location of personnel, known disease vectors, and endemic diseases may be the first, best, or only indication of biological agent attack.

3-181. Biological agent attack protective measures are the same as the measures for chemical agents when bombs, sprays, or aerosols are used. General protective measures are the same as for any infectious disease; specific protective measures are used once the method of transmission has been identified. If units cannot rapidly identify biological agents, this may require the use of higher levels of MOPP for longer periods of time. Passive defensive measures (such as immunizations, good personal hygiene, physical conditioning, using insect repellents, wearing the protective mask, and practicing good sanitation) will mitigate the effects of many biological agent hazards.

3-182. Designating a single Role 3 hospital to care for these patients (from a patient care or disease transmission standpoint) may not be necessary. However, if there are a limited number of cases, consolidating them all at one facility maximizes the use of limited diagnostic laboratory and personnel assets. Quarantine of exposed personnel or isolation may be warranted in some cases, particularly with infectious biological agent exposure. For more information on the treatment of biological warfare agent casualties, refer to ATP 4-02.84/MCRP 3-40A.3/NTRP 4-02.33/AFMAN 44-156_IP.

RADIOLOGICAL AND NUCLEAR

3-183. The health care mission must continue in a nuclear environment. Well-constructed shelters with overhead cover and expedient shelters (reinforced concrete structures, basements, railroad tunnels, or trenches) provide good protection from radiological and nuclear attacks.

3-184. Most protective measures against nuclear attack require engineer or intensive logistics support. This support includes placing sandbag walls around tents, digging trenches for patient occupation, or constructing earthen berms. Occupying existing structures, depending upon their strength and potential flammability, may be the best protection against the effects of a nuclear strike.

3-185. Hospitals operating in a radiation fallout environment face several problems (which include operating with degraded capabilities) with —

- The Role 3 hospital being immersed in fallout, requiring decontamination and relocation efforts.
- Patients from continued radiation exposure.
- The contaminated environment hindering medical treatment, hospitalization, medical evacuation, and medical logistics operations.

3-186. Decontamination of most radiologically contaminated patients and equipment can be accomplished by removing outer layer of clothing or brush, wipe, or shake off. While contamination control measures should be practiced for radiologically contaminated casualties, lifesaving medical care should be administered as soon as possible with priority over thorough decontamination. For more information on the treatment of nuclear and radiological casualties, refer to ATP 4-02.83/MCRP 4-11.1B/NTRP 4-02.21/AFMAN 44-161(I).

ROLE 3 CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR IDENTIFICATION

3-187. The Role 3 hospital may assist in identification of CBRN hazards, depending on equipment and personnel assigned. Army field hospitals with polymerase chain reaction technology and appropriate film array may provide field confirmatory identification of certain biological hazards.

3-188. The Role 3 hospital may assist in field confirmatory and theater validation of environmental samples of CBRN hazards with a CBRN laboratory, such as the Global Medical Field Laboratory or Chemical, Biological, Radiological, Nuclear, and Explosives Analytical Remediation Activity. The Global Medical Field Laboratory provides surveillance, analytical laboratory testing, and health hazard assessments of environmental, occupational, endemic and CBRN threats. The Chemical, Biological, Radiological, Nuclear, and Explosives Analytical and Remediation Activity has a mobile expeditionary laboratory that conducts theater validation identification of chemical, biological and explosive materials and other elements that conduct technical escort of these materials. Role 3 hospital centers should coordinate through their higher headquarters for planning concerning CBRN hazards with other laboratory assets available in the OE. For more information on CBRN planning and identification of CBRN hazards refer to ATP 3-11.36/MCRP 10-10E.1/NTTP 3-11.34/AFTTP 3-2.70 and ATP 3-11.37/MCRP 10-10E.7/NTTP 3-11.29/AFTTP 3-22.44.

MASS CASUALTY OPERATIONS

3-189. A MASCAL event is one in which a significant disparity exists between the capacity and capability of the Role 3 hospital's assets to deal with the number, complexity, and location of numerous patients. *Mass casualty* is any large number of casualties produced in a relatively short period of time, usually as the result of a single incident such as a military aircraft accident, hurricane, flood, earthquake, or armed attack that exceeds local logistics support capabilities (FM 4-02). Formal declaration of a MASCAL situation, which is a top-down directed activity, will likely become the hospital commander's main effort and will typically require assets from outside the hospital's direct tasking authority. If MASCAL operations are viewed as part of the area damage control missions, then the medical requirements will be integrated into the plan. For

information on the conduct of MASCAL operations at Role 1 and Role 2, refer to ATP 4-02.4 and ATP 4-02.6.

3-190. To ensure effective management of MASCAL situations, hospital leaders should develop and rehearse their MASCAL plan. 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. Planning considerations include—

- Control and coordination: Establishing a central control element to oversee and direct the response effort, including the release of information updates.
- Security and access control: Securing the area and limiting access to nonessential personnel to ensure a safe and efficient operation.
- Communications: Establishing reliable communication links between different areas and with higher headquarters to facilitate information sharing and coordination.
- Facility layout: Designating and setting up triage, treatment, and holding areas to manage patient flow and care.
- Traffic management: Creating a traffic pattern that allows for the smooth flow of patients and vehicles and marking routes to different areas to prevent confusion.
- Personnel orientation: Ensuring that all personnel, including medical and nonmedical staff, are familiar with the MASCAL station's layout, markings, and routes to follow during the operation.
- Medical staffing: Organizing medical personnel to staff different areas, including triage, treatment, and holding areas.
- Triage prioritization: Ensuring that triage officers understand the importance of prioritizing care based on the commander's assessment of resource capabilities.
- Nonmedical support: Organizing nonmedical personnel to perform tasks such as litter bearer duties, messaging, and restocking supplies.
- Medical logistics: Ensuring an adequate supply of blood and other critical Class VIII items and having a plan in place for resupply or procurement.
- Evacuation planning: Providing for timely evacuation of patients to higher-level medical facilities, as needed.

3-191. Hospital leaders should coordinate with the rear command post or units in the support area to receive nonmedical personnel to provide manpower for nonmedical functions. Furthermore, the hospital commander, with advice and guidance from the senior physician, should be the only person who determines the hospital is experiencing a MASCAL. A MASCAL battle drill should be included in the hospital’s TACSOP and rehearsed regularly.

PROLONGED CARE AND DELAYED EVACUATION OPERATIONS

3-192. *Prolonged care* is patient care for extended periods of time when evacuation or mission requirements surpass available capabilities or capacity to evacuate the patient (JP 4-02). Specifically, a prolonged care scenario exists when a medical unit exhausts a specific capability that a patient requires. Prolonged care is a consideration that medical planners forecast in planning medical support based on the threat and operational requirements. Rehearsals of prolonged care under varying circumstances should be conducted prior to execution.

3-193. Prolonged care may be a new term for the conventional army, but it is no stranger either. For decades, operational medicine formations have been tackling with what to do with patients when evacuation is delayed. In the past, units have addressed prolonged care in the TACSOP, and they should continue doing so.

3-194. Prolonged care operations are a set of conditions pre-planned and executed on order at the tactical level that require a unit to hold patients for an extended amount of time. Prolonged care is normally conducted at Role 1 and Role 2. Delayed evacuation is conducted at Role 3 as they are used to medically regulating large numbers of patients. A Role 3 hospital still may be called upon to conduct prolonged care and the tasks become considerations that the leaders forecasts in planning hospitalization.

3-195. The hospital TACSOP should articulate how prolonged care and delayed evacuation is rehearsed and executed. For additional information on the conduct of prolonged care operations, refer to ATP 4-02.4 and ATP 4-02.6. The hospital leaders should consider —

- Providing prolonged care if isolated, MASCAL elsewhere prevents displacing patients, evacuation assets are unavailable, or METT-TC [I] dependent.
- Managing casualty response events that include triage with limited resources and delayed evacuation procedures with an understanding of what principles will guide triage of patients and resources in these settings.
- Coordinating and synchronizing additional evacuation platforms required to move large numbers of patients from the Role 3 hospital after prolonged care operations cease.
- Recognizing the potential need for en route care and requesting appropriate assets to execute.
- Managing classes of supply consumption, especially Class I, III and Class VIII, will become critical. If patients can't get out, supplies can't get in.
- Conducting walking blood banks to support increased blood and blood product requirements.
- Developing and rehearsing tactics, techniques, and procedures to address prolonged care and delayed evacuation such as the use of "makeshift wards" for overflow.
- Planning for the increase in mortality from wounds with the potential of prolonged care and delayed evacuation.
- Additional training requirements for medical personnel to execute prolonged care and delayed evacuation at the Role 3 hospital.

PRISONER OF WAR AND UNPRIVILEGED ENEMY BELLIGERENT OPERATIONS

3-196. The Role 3 hospital may be required to provide medical care to prisoners of war or unprivileged enemy belligerents. Prisoners of war and unprivileged enemy belligerents shall in all circumstances be treated humanely and protected against any cruel, inhuman, or degrading treatment. This requirement has been reflected in international law, domestic law, national policy, and DoD policies. WII detainees shall be cared for. They should receive the medical care and attention required by their conditions. Health care personnel charged with the medical care of detainees have a duty to protect prisoners of war and unprivileged enemy belligerents physical and mental health and provide appropriate treatment for disease. If injured enemy combatants remain hospitalized, they should receive the same prioritization of care as friendly combatants, in accordance with the Geneva Conventions (see Appendix C).

3-197. To the extent practicable, treatment of prisoners of war and unprivileged enemy belligerents should be guided by professional judgments and standards like those applied to personnel of the U.S. Armed Forces. For further guidance on medical care for detained personnel, refer to JP 4-02, AR 190-8, ATP 4-02.46, and TC 8-250.

DIED OF WOUNDS RECEIVED IN ACTION OPERATIONS

3-198. The Role 3 hospital is responsible for establishing a temporary morgue for patients who have died of wounds received in action at the MTF and are responsible for handling the remains until transported to the supporting mortuary affairs organization. Hospital staff coordinate with mortuary affairs for remains disposition. Supported units do not bring their dead to this area. This is only for the short-term storage of the remains of those who died of wounds received in action at the Role 3 hospital. For additional information on mortuary affairs, refer to JP 4-0 and ATP 4-46/MCRP 3-40G.3/NTTP 4—06/AFTTP 3-2.51.

PRINCIPLES GOVERNING MEDICAL DISPOSITION OF DECEASED PERSONNEL

3-199. All personnel assigned to medical units should be knowledgeable as to the proper procedure for handling deceased personnel. In the coordination process, handling and disposition of deceased personnel —

- Human remains are—
  - Segregated from other patients.
  - Not moved on medical evacuation resources.
  - Not evacuated with living patients.
- A DD Form 1380 *(Tactical Combat Casualty Care [TCCC] Card)—*

  - Should be initiated and attached to the remains if possible.
  - Is signed by a medical officer prior to their departure from the mortuary affairs collection point.
- A certified medical officer will pronounce death and complete a DD Form 2064 *(Certificate of Death)* or appropriate documents. The cause of death on the form will be listed as "pending Armed Forces Medical Examiner determination."

3-200. The hospital patient administration section is responsible for reporting the death of a patient to the unit, casualty liaison team, and coordinating with mortuary affairs for the prompt disposition and removal of remains.

Note. In the U.S. Army, U.S. Navy, and U.S. Marine Corps, transportation and handling of human remains is a logistics function and not a medical function.

3-201. Careful contingency planning that provides workable guidelines for the disposition of patients and human remains should be conducted prior to the operation and prior to rotating personnel out of the AO. If biological warfare agents have been used in the theater of operation, redeployment planning should include the health screening of personnel before their movement out of the theater to prevent the spread of disease. Planning should also incorporate close coordination with multinational unit commanders, who have forces in the theater to ensure disease containment.

RESPONSIBILITIES

3-202. Combatant commanders are responsible for searching, recovering, tentatively identifying, and evacuating remains from their area of responsibility. Commanders are responsible for providing or arranging for mortuary affairs support for their personnel. Subordinate commanders at all levels are responsible for the initial search for recovery, tentative identification, and evacuation of all deceased unit personnel within their AO.

3-203. Mortuary affairs personnel are responsible for coordinating the disposition of human remains. The joint mortuary affairs office acts as the theater central point of contact for coordination for the mortuary affairs.

3-204. If a contaminated patient dies while being treated in a Role 3 hospital, medical personnel will ensure the contaminated remains are isolated and handed over to mortuary affairs personnel as soon as possible. The handling, transport, and disposition of CBRN contaminated human remains on the battlefield or after removal from the medical system are not a medical responsibility, but a logistics function; however, medical expertise should be sought. For more information on contaminated human remains, refer to JP 3-11, ATP 4-46, and ATP 4-02.83/MCRP 4-11.1B/NTRP 4-02.21/AFMAN 44-161(I).

SECTION VIII – HOSPITALIZATION EMPLOYMENT IN SPECIFIC ENVIRONMENTS

3-205. Specific regional OEs have an impact on hospitalization and how it is employed. During the planning process, medical and hospital commanders, staffs, and medical planners should take these factors into consideration. Each regional OE has its own set of challenges for hospitalization and applying the six AHS principles will be vastly different in each. This section details some of these impacts to hospitalization as they relate to maritime, arctic, mountainous, jungle, desert. urban, and subterranean operations.

MARITIME OPERATIONS

3-206. The maritime OE is vast and covers the arctic to Antarctica including littoral regions in between. However large the oceans are, land is what makes the maritime area important to the maneuver commander. The ultimate objective of conflict is typically not to control vast expanses of open water but rather the land within it. A maritime OE adds coordination and synchronization requirements for Army echelons that typically operate and train in land OEs. In a maritime OE, Army forces should be prepared to be the supporting Service. For more information on maritime operations, refer to FM 3-0.

3-207. Operating in a maritime OE has unique characteristics and challenges for the Role 3 hospital. Planning hospitalization operations in maritime environments requires commanders and staffs carefully consider the OE. Commanders and staffs need to consider that applying an operational framework in a maritime environment is significantly different than applying an operational framework to a land operation. Some considerations to hospitalization operations include:

- In a maritime OE, hospital leaders will need to be familiar with the joint planning process.
- Units may need to rely on ship-based hospitalization during initial operations, which requires joint planning and coordination.
- For site selection, terrain ranges from mostly flat in shore areas to mountainous further landward. This adds wind, tides, and monsoons as a factor in site selection.
- Hardening of the Role 3 hospital in exposed locations, on small or remote islands, is crucial to maintaining survival and will require extensive engineer support.
- The Role 3 hospital produces large noise, light, and heat signatures. Hospital leaders should consider locations for the Role 3 hospital that mitigate these factors.
- In littoral regions, where the best location is for the Role 3 hospital to maintain proximity to the supported force.
- The Role 3 hospital should be positioned in proximity to navigable bodies of water as the primary means of receiving patients may be over water.
- Extreme weather plus the corrosive effects of salt water can rapidly degrade the maintenance readiness of medical devices already at the extent of long logistics lines of communications (this includes certain Class VIII and medicine).
- Due to geographic constraints and enemy activity, communications with higher headquarters and supported forces may be limited, and hospital leaders should develop courses of action to mitigate this risk to maintain situational awareness and ensure minimal disruption of hospitalization operations.
- The Role 3 hospital places an increased demand on certain classes of supply, which may be difficult to transport, have special storage requirements (for example, refrigeration), and be difficult to off-load in remote island locations.
- How the Role 3 hospital expects to receive Class VIII and medical device repair parts.
- Due to the geographical dispersion within the maritime OE, the Role 3 hospital may receive liaisons from supported joint or multination partners and should establish memorandums of agreement or understanding on how you utilize them.

EXTREME COLD WEATHER OPERATIONS

3-208. The Arctic region is significantly influenced by maritime and includes three combatant commands. Extreme cold weather presents a harsh and demanding maritime, land, and air environment for military operations. Extreme temperatures, long periods of darkness and extended daylight, high latitudes, seasonally changing terrain, and rapidly changing weather patterns define extreme cold weather conditions, and they all have impacts on the operational and mission variables. The variability of the physical terrain and weather exposes military forces and capabilities to increased levels of risk. For more information on Arctic operations, refer to ATP 3-90.97.

3-209. Like all regional OEs, operating in extreme cold weather has challenges for the Role 3 hospital. Planning hospitalization operations in an extreme cold weather environment involves the hospital leaders studying the OE to apply the hospitalization operational framework in an extreme cold weather environment that best suits the supported force. Some considerations to hospitalization operations include:

- Site selection for the Role 3 hospital in an extreme cold weather environment should include terrain that is relatively flat and, in a location, proximate to the supported force. Use of terrain for cover and concealment and protection from wind and blowing snow should also be considered.
- Ice or snow covering gaps, holes, or crevasses can become a hazard when thawed as well as when a bog thaws if a Role 3 hospital is setup on top of it.
- The Role 3 hospital produces large noise, light, and heat signatures. With long periods of darkness, light discipline becomes an important factor. Heat signatures in extreme cold weather are extremely easy to see with current technology. Hospital leaders should consider locations for the Role 3 hospital that mitigate these factors.

- Ground mobility is typically most favorable during the winter months. Summer poses significant challenges for most vehicles moving off road, while the most challenging period is the spring thaw when ground movement becomes impossible across large swaths of territory.
- Operations in extreme cold weather regions get more complicated when roadways, seaports, and airfields can become unusable depending on seasons.
- In extreme cold weather, base infrastructure materials across the region need to have high thermal efficiency, long-term durability, tolerance to repeated freeze and thaw cycles, and resistance to permafrost degradation.
- Solid medications and freeze-dried material instead of liquids can be used when building the list of authorized medical stocks to minimize freezing, storing, and handling problems.
- Refrigerated and heated storage areas, such as warming tents, vehicles, and containers, are required for storing liquid medications, blood and blood products that has been collected and processed.
- There will also be an increased requirement for lip balm, sunscreen, cough syrup, and decongestants.
- Infrastructure in many austere locations has already deteriorated due to extreme environmental factors and snow accumulation can damage tentage and shelters.
- Tentage and shelters may require liners, and additional heaters may have to be used when operating in an Arctic environment, to include laundry and bath, eating, and sleeping areas.
- Class IV construction material resupply for extreme cold weather use may have long lead times.
- How does the Role 3 hospital expect to receive Class VIII and medical device repair parts.
- Cold weather injuries will be increased, and the Role 3 hospital should refer to TC 3-97.61 for more information on prevention and management of cold-weather injuries.
- Medical leaders can prepare for extreme cold weather operations through acclimatization and training.

MOUNTAINOUS OPERATIONS

3-210. Mountainous regions are in all seven combatant commands. Different mountain chains have different types of climates. Some chains are in dry desert regions with temperatures ranging from extreme heat in the summer to extreme cold in the winter. In tropical regions, small to medium mountains are covered in lush jungles with deep ravines that flood during the rainy season. Temperatures in these areas typically remain warm and humid all year. Many of the mountains in Central America and many mountainous regions in Africa and South America located close to the equator have these characteristics. Some mountainous regions have a variety of environments where units have encountered several different mountainous environments within the same AO. In winter and at higher elevations throughout the year, snow covered slopes create an environment with its own distinct effects. Commanders operating in the arctic and subarctic mountain regions and the upper elevations of the world's high mountains, are also confronted with vast glaciated areas. For more information on mountainous operations, refer to ATP 3-90.97.

3-211. For the Role 3 hospital, operating in a mountainous OE can be difficult. The terrain, weather, and altitude all playing factor in providing hospitalization to the supported force. Hospital leaders need to understand how the mountains affect operational and mission variables. Limited lines of communication and restricted terrain may force evacuation of patients by air rather than ground. Many factors are related to the environment, hospital, and PAR. Some of these factors include:

- It may be tough conducting site selection for the Role 3 hospital in a mountainous environment. Terrain needs to be relatively flat and, in a location, proximate to the supported force. Risk may be assumed in being forced to set up a smaller Role 3 hospital footprint due to terrain constraints.
- Altitude will be an issue in mountainous operations. For more information on altitude acclimatization and illness management, refer to ATP 3-90.97, TB MED 505, and TC 3-97-61.
- Landslides and avalanches should be considered when conducting site selection.
- Mountainous regions form their own weather patterns that will impact the evacuation of patients to and from the Role 3 hospital.
- These same weather patterns will impact sustainment and the delivery of Class VIII. The Role 3 hospital can mitigate this risk by stocking up Class VIII.

- The mission, AO, terrain, and weather will dictate the radio nets, local area networks, and special purpose systems the Role 3 hospital may require with the communications priority being single-channel radio and satellite communication whenever possible.
- The Role 3 hospital may be reliant on the use of retransmission and radio relays stations to communication and maintain situation awareness.
- In a cold, mountainous environment, personal hygiene is difficult to maintain due to limited water.
- The potential for the spread of infectious diseases increases by confined living spaces shared by multiple individuals.
- Medical leaders can prepare for mountainous operations through acclimatization and training.

JUNGLE OPERATIONS

3-212. Jungles are masses of tropical vegetation that are often tangled, overgrown, and impenetrable climates that very by location. Successful jungle operations require modifications to equipment and tactics as the environment can profoundly affect military operations. Primary, secondary, and savanna are the three main classifications of jungles. Primary and secondary jungles can be further classified as tropical or deciduous based upon the predominate trees. Common land features in the jungle are swamps, savannas, and cultivated areas. The large amount of annual precipitation supports incredible plant and wildlife density and diversity as well as make jungles the most ecologically rich and vibrant environments on the planet. They occur most commonly in the tropical areas of the world, mainly Southwest Asia, Africa, and Latin America. For more information on jungle operations, refer to ATP 3-90.98/ATP 3-90.98/MCTP 12-10C.

3-213. Role 3 hospital operations in the jungle require unique methods and means for providing hospitalization to the supported force. Hospital leaders need to understand how the jungle affects operational and mission variables. With limited lines of communication and restricted terrain, evacuation of patients by air may be the only method during mass casualty scenarios. Hospital leaders and planners should improvise and adapt modes of hospitalization to best suit the environment. For the Role 3 hospital, operating in a jungle OE can be difficult. Many factors are related to the environment, hospital, and PAR. Some of these factors include:

- Jungle site selection for the Role 3 hospital has three major factors; is the terrain flat, with limited vegetation, is it high enough or away from streams and rivers due to the amount of rainfall and is it in a location proximate to the supported force. Risk may be assumed in being forced to set up a smaller footprint due to terrain constraints.
- The hospital and supported force will encounter wildlife that can harm humans. Through the health hazard analysis, the hospital leaders should have country specific antivenoms to mitigate some of these threats.
- Environmental effects on people are increased in jungle operations and include climatic stress on the human body such as sunlight, dehydration, heat injuries, and DNBI affected by hygiene, diet, latrines, and water exposure.
- Environmental effects on equipment are high heat, humidity, and water which are key components of most jungles and will have an adverse effect on temperature regulated medicines, Class VIII, and medical devices. Hospital leaders should develop ways to mitigate these effects.
- In the jungle, casualty rates are higher during offensive operations.
- Due to the difficulties of ground evacuation in jungle operations, a greater emphasis on air evacuation is necessary so large helicopter landing zones are required that can accommodate a CH-47.
- The effectiveness of radio communications is reduced in jungle operations. Very higher frequency and ultrahigh frequency radios are limited by dense foliage and terrain that obstructs transmissions.
- Satellite communication is an effective means of communication when line of sight cannot be maintained but will need a clear view of the sky.
- Jungle operations are often accompanied by a long, complicated, and potential tenuous line of communication that will impact sustainment and the distribution of Class VIII which can be mitigated by the hospital stocking up and safeguarding Class VIII.
- Due to the environment and wildlife, the hospital should be in close contact with mortuary affairs to remove remains for those that have died of wounds received in action (known as DWRIA) at

the Role 3 hospital. *Died of Wounds Received in Action* is a casualty category applicable to a hostile casualty, other than the victim of a terrorist activity, who dies of wounds or other injuries received in action after having reached damage control surgical capability (DODI 1300.18).

- Hospital leaders can prepare for jungle operations through acclimatization and training.

DESERT OPERATIONS

3-214. Deserts are arid, barren regions of the earth that feature the greatest extremes of temperatures and weather volatility. Successful desert operations require modifications to equipment and tactics as the environment can profoundly affect military operations. There are four main classifications of deserts: mountain deserts, rocky plateau deserts, polar deserts, and sandy or dune deserts. The common denominator of all four desert classifications is the lack of significant annual precipitation. Desert bedrock may have a layer of sand, ice, or gravel over it. Topsoil often has eroded or never formed due to any combination of a lack of water, heat, cold, or wind. Common land features in the desert consist of sand dunes, escarpments, dry riverbeds, and depressions. The lack of annual precipitation and topsoil leads to reduced wildlife and plant densities, often with unique and potentially hazardous adaptations, that give deserts their characteristic barren appearance. For additional information on desert locations, characteristics, and operations, refer to ATP 3-90.99/MCTP 12-10D and see Appendix A of this publication.

3-215. The vast distances, increased lethality, and rapid pace of desert operations can overwhelm the Role 3 hospital and complicate patient treatment and surgical 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 mass casualty situations can exceed the capabilities of all roles of care without careful planning and coordination. Effectively managing large numbers of patients requires clearly understood TACSOPs, rehearsals, adequate resources, rapid triage, surgical intervention, evacuation from the Role 3 hospital, and detailed patient tracking procedures. Many factors are related to the environment, hospital, and PAR. Some of these factors include:

- Site selection for the Role 3 hospital should make good use of the terrain for cover and concealment but avoid wadis and dry riverbeds that can become a torrent of dangerously rushing water with little warning from relatively minimal rainfall. The site should be relatively flat and, in a location, proximate to the supported force.
- Although casualties can occur during all operations and in any environment, the potential for mass casualty events increases during desert combat operations. The open terrain and lack of natural cover and concealment make it easier for enemy surveillance to detect and locate friendly forces.
- The air stability in desert regions varies due to the extreme fluctuations between day and night temperatures that may impact medical devices, temperature sensitive Class VIII and medicine.
- High winds occur in certain desert seasons. Blowing sand limit visibility and may impact medical devices, surgical procedures, and cause DNBI health concerns for the hospital and supported force.
- Desert terrain has many variations ranging from nearly flat, with high trafficability, to impassable mountain ranges. Role 3 hospitals preparing to deploy to specific desert regions should seek detailed information on terrain prevalent in the expected AO.
- Scorpions and centipedes are prevalent in many desert regions but are rarely fatal. Flies, fleas, mites, and lice pose a significant operational public health hazard to the hospital and supported forces. Hospital leaders should develop ways to mitigate these health threats.
- Environmental effects on people in a desert environment can rapidly fatigue unprepared troops both physically and mentally and turn them into a patient. Climatic stress on the human body in hot deserts can be caused by any combination of air temperature, humidity, air movement, and radiant heat. This includes climatic stress on the human body such as sunlight, lack of water, dehydration, heat and cold injuries, wind that blows dust and sand.
- Environmental effects on equipment are heat, sunlight, wind, humidity which can negatively affect temperature sensitive medicines, Class VIII, and medical devices. Dust and sand pose the greatest harm to vehicles and equipment in the desert and will have an adverse effect on certain Class VIII and may damage medical devices. Hospital leaders should develop ways to mitigate these adverse environmental effects.

- Static electricity is common in desert environments due to the low atmospheric humidity and poor grounding potential of the dry ground surface. It may damage medical devices if not grounded to the desert floor.
- Due to the environment and wildlife, the hospital should be in close contact with mortuary affairs to remove remains for those that have died of wounds received in action at the Role 3 hospital.
- Hospital leaders can prepare for desert operations through acclimatization and training.

URBAN OPERATIONS

3-216. Urban terrain provides numerous advantages to the defender. Due to this advantage, casualties in urban terrain are more likely than in other types of operations due to the compressed proximity of forces. 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 casualty evacuation under difficult circumstances make the positioning and availability of adequate medical resources another important consideration. Additionally, high intensity urban combat and the potential for increased stress casualties require additional units to allow for adequate unit rotations so that Soldiers receive the rest they require. For more information on urban operations, refer to ATP 3-06/MCTP 12-10B.

3-217. Wound types during urban operations tend to differ from those in other environments. Crush, thoracic, and injuries to limbs tend to be a greater percentage due to hard surfaces, structure collapse, and thermobaric weapons use. Some evidence indicates that head injuries and combat stress-related injuries may be higher as well. Firing large caliber weapons in enclosed spaces may result in internal organ damage. As these injuries demand skills that may not be readily available or addressed in medical training, for example detection of internal injury to organs. Therefore, considering the threat environment is imperative to the Role 3 hospital.

3-218. A realistic understanding of the risk and the nature of casualties resulting from urban operations critically affect the military decision-making process or where to place Role 3 hospitals. If commanders assess the casualty risk as high, they should ensure proper placement of hospitalization assets within the AO. Some hospitalization considerations in urban terrain are:

- Site selection for the Role 3 hospital in an urban environment should include terrain that is relatively flat and, in a location, proximate to the supported force. In an urban OE this can be buildings, warehouses, malls, factories, stadiums, parking lots, or parks. Factors for terrain should include cover and concealment when applicable.
- In the offensive, the Role 3 hospital will need advanced stock of 120 percent modified table of organization and equipment for Class VIII in support areas.
- Increased casualties will require additional forward-placed Role 3 hospitals and equipment to facilitate hospitalization of U.S. armed forces personnel and secondarily, care for civilian casualties as cessation of major urban combat and eligibility of care determination allows, and care for retained and detained personnel and EPWs, as required.
- Class VIII will be consumed at a faster rate for military and civilian patients, especially if caused by U.S. forces and the eligibility of care determination allows treatment of civilians.
- The Role 3 hospital may be asked to assist medical assessments of the impact of any of the humanitarian crisis, such as disease threats due to the lack of potable water, energy availability (electricity, oil, or natural gas) and the impact of the terrain.
- To what extent civilian Class VIII be used?
- What civilian medical services are available and operational and the feasibility of their use?
- What civilian emergency services are still in existence and whether they can be used?
- What civilian emergency services use radio communications and what frequencies they use?

SUBTERRANEAN OPERATIONS

3-219. Conducting operations in a subterranean environment provide unique challenges for Soldiers and the medical personnel supporting them. While disease, trauma, and behavioral health issues are common in all OEs, there is a greater risk of an increase in the number of patients, severity of wounds, and psychological stressors impacting Soldiers operating in confined spaces with little or no light.

3-220. The types of traumatic injuries likely are like any environment. However, more so in subterranean operations, the effects of blast and blast overpressure is a unique challenge that Role 3 hospitals need to be prepared for. For detailed medical considerations for units supporting subterranean operations refer to ATP 3-21.51 and see Appendix A of this publication.

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Chapter 4

Specialized Surgical and Medical Augmentation Organizations

Assigned to a TMC or MEDBDE and attached to the HHD, hospital center for C2, there are specialized augmentation detachments and teams that are available to provide additional surgical and medical capabilities to supplement the existing capabilities of the Role 3 hospital, attached augmentation detachments, or forward deployed with the division or brigade combat team (BCT). This chapter provides information on the mission, assignment and dependencies, capabilities and functions, and employment of these organizations. These units are—

- The medical detachment (prolonged care augmentation).
- The medical detachment (minimal care).
- The medical detachment (forward resuscitative and surgical).
- The hospital augmentation team (head and neck).

SECTION I – MEDICAL DETACHMENT (PROLONGED CARE AUGMENTATION)

4-1. This section provides an overall discussion of the medical detachment, PCAD allocation, assignments and capabilities, dependencies, employment, and organization and functions.

4-2. The PCAD is a medical treatment capability that on order may be employed as far forward as Role 2. The PCAD is a 63-Soldier detachment that, when elements are attached to a Role 2 medical company, may augment the medical treatment platoon and evacuation platoon capabilities. This augmentation provides additional medical personnel to the Role 2 medical company to provide prolonged care and en route care, when necessary, within the maneuver brigade. The PCAD is not a self-sustaining unit and does not increase bed capacity and should be deployed with or attached to a Role 3 hospital or Role 2 medical company for support. Further, the PCAD is neither staffed nor equipped to provide routine primary care (sick call) functions.

MISSION

4-3. The PCAD provides augmented patient care for protracted periods for units conducting prolonged care and delayed evacuation. It further provides en route care during intratheater PM and provides critical en route care during intertheater PM to strategic support area medical treatment facilities.

Note. Prolonged care may be a new term for the conventional army, but it is no stranger either. For decades operational medicine formations have been tackling with what to do with patients when evacuation is delayed. In the past, units have addressed prolonged care and delayed evacuation in their TACSOP, and they should continue doing so.

ASSIGNMENT AND DEPENDENCIES

4-4. The PCAD in coordination with MEDBDE, hospital center, or field hospital (32-bed) leaders should build on the list of dependencies from the Section I and in their unit TACSOP, add additional dependencies as required, and describe in detail the nature of each dependency and how these units will support the PCAD.

ASSIGNMENT

4-5. The PCAD is assigned to a corps aligned HHC, MEDBDE. It may be attached to the HHD, hospital center when not operationally employed with elements further attached to a Role 2 medical company.

4-6. There are many ways to describe the assignment or relationships the PCAD will have. Medical planners should be detailed toward the command and support relationships required of the PCAD through the orders process.

DEPENDENCIES

4-7. The PCAD is dependent upon—

- Appropriate elements within the AO for support in personnel services, financial management, administrative services, food service, communications, information management, logistical, mortuary affairs, religious, legal, power and generator, unit and field maintenance, security, and defense, CBRN, and AHS.
- Medical company (brigade support) for the ground evacuation of patients and to provide medical maintenance and Class VIII resupply when attached.
- Medical company, ground ambulance for the ground evacuation of patients and emergency movement of medical personnel and delivery of WB, biological, and medical supplies/equipment.
- Medical company, air ambulance for the aeromedical evacuation of patients and emergency movement of medical personnel and delivery of WB, biological, and medical supplies/equipment.
- Medical logistics company for Class VIII, and medical maintenance, as required.
- Field hospital (32-bed), medical battalion (multifunctional) (MMB), medical company (area support), or medical logistics company for medical maintenance and Class VIIIA resupply.
- Medical detachment, blood support for Class VIIIB resupply.
- HHC and STB sustainment brigade, HHC and STB, division sustainment brigade, or supported unit for transportation support.

CAPABILITIES

4-8. The PCAD provides the following capabilities:

- Prolonged care to patients in forward medical units, augmenting existing medical capabilities as needed.
- En route critical care during patient evacuation, enhancing existing critical care capabilities.
- Augmentation of critical care services on intertheater evacuation platforms.
  Note: The PCAD is not responsible for performing field maintenance on any organic equipment.
- For security purposes, PCAD personnel are equipped with weapons for personal defense and protection of patients under their care.

FUNCTIONS

4-9. The PCAD is a modular organization that can be tailored to support various medical operations. Typically, the PCAD is divided into sections and attached to a Role 3 hospital or a Role 2 medical company to provide enhanced medical capabilities. The PCAD can be further subdivided into smaller teams, depending on the mission requirements. The detachment is composed of six sections:

- A headquarters section that provides command and control.
- Five PCAD sections that can be task-organized to support specific medical operations.

HEADQUARTERS SECTION

4-10. The Headquarters Section provides C2, administrative and logistical support. It also provides, direct supervision, operational planning and coordination for deployment, relocation, and redeployment, coordination for life support and security. All members of the headquarters section should be trained in managing prolonged care, en route care, and MEDEVAC procedures at the tactical level.

4-11. If all PCAD sections are forward deployed or on order to deploy, the headquarters section should be prepared to assume a direct supporting role to the MEDBDE S-3 PM branch, MMB medical operations section, or corps and division surgeon section. The headquarters section consists of the commander, medical operations officer, and detachment sergeant. Duties and responsibilities aligned with these positions are described below.

Commander

4-12. The PCAD commander should have a thorough understanding of prolonged care, en route care, and intratheater and intertheater MEDEVAC operations to provide overarching C2 or consultation to corps or division level medical commanders, hospital commanders, or surgeon sections. The commander has the overall responsibility for employing and implementing prolonged care assets within the detachment's AO.

Medical Operations Officer

4-13. The medical operations officer is responsible for communications, security, plans, operations, deployment, and relocation of the PCAD. This officer supervises all operations (including administrative, training, supply, and transportation requirements) conducted by elements of the detachment and is responsible for formulation of the PCAD TACSOP and prolonged care planning factors written in annex F (sustainment, appendix 3 [HSS]).

Detachment Sergeant

4-14. The detachment sergeant is responsible to the PCAD commander for all enlisted matters. This NCO also assists the medical operations officer in supervising the detachments operations (including administrative, training, supply, and transportation requirements).

PROLONGED CARE SECTION

4-15. The PCAD has five prolonged care sections assigned to it with each prolonged care section consisting of twelve personnel, organized as three squads of four personnel. The prolonged care augmentation squad operates alongside Role 2 medical companies to provide prolonged care and augment en route care. The senior officer and NCO within the three PCAD squads serves as the officer in charge and NCO in charge of the PCAD section.

4-16. The PCAD squad can operate on MEDEVAC, and casualty evacuation platforms, or on intertheater evacuation aircraft. Squads can be further employed as two teams of two personnel, a team being a combination of one officer and one enlisted.

4-17. Each PCAD squad consists of a physician assistant (65D), a critical care nurse (66S) or an emergency nurse (66T), a licensed practical nurse (68C), and a combat medic specialist (68W). All members of the PCAD squad should be trained in prolonged care, en route care, and MEDEVAC procedures at the tactical level. The senior officer serves as the squad leader and is responsible for the clinical operations of the PCAD squad. The duties and responsibilities of members of the PCAD squad are discussed in the following paragraphs.

Physician Assistant

4-18. The physician assistant (65D) assigned to a PCAD squad is advanced medical treatment qualified and provides Role 1- and Role 2-level medical treatment to all categories of patients in an OE under prolonged care conditions. This officer prescribes courses of treatment and medication when required consistent with their capabilities and credentials. The physician assistant in the PCAD squad will be the primary source of advice to determine the medical necessity, priority, and requirements for patient evacuation, initial emergency care, and stabilization. When forward deployed, the physician assistant may serve as the squad leader or team leader and be responsible for the clinical operations of the PCAD squad or team.

Critical Care Nurse or Emergency Nurse

4-19. When assigned a critical care nurse in the PCAD squad, the critical care nurse (66S) or emergency nurse (66T) provides intensive nursing care to all categories of patients in an OE under prolonged care conditions, and conducts triage, analysis, nursing diagnosis, planning, implementation of interventions (stabilization and resuscitation), and supervision and instruction for enlisted personnel. On order, this officer may provide en route care to patients moving within the continuum of care. When forward deployed, this officer may serve as the squad leader or team leader and be responsible for the clinical operations of the PCAD squad or team.

Practical Nurse

4-20. The practical nurse (68C) assigned to the PCAD squad provides emergency nursing care procedures under the supervision of a physician assistant or nurse to all categories of patients in an OE under prolonged care conditions. The practical nurse may accompany a nurse in support of en route care.

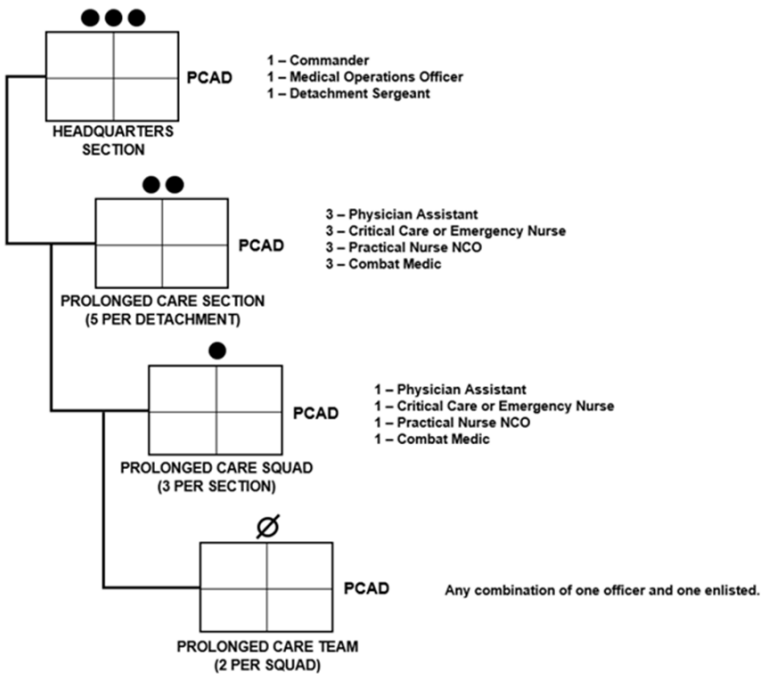
Combat Medic

4-21. The combat medic specialist (68W) assigned to the PCAD squad provides emergency medical treatment and preparation for evacuation of patients in an OE under prolonged care conditions under the supervision of a physician assistant, nurse, or practical nurse. The combat medic may accompany a nurse in support of en route care.

EMPLOYMENT

4-22. This detachment is employed within a corps AO in support of a corps or divisions. The detachment headquarters provides C2 when it deploys as a complete detachment and is normally assigned to the corps aligned MEDBDE.

4-23. As required, the five PCAD sections can be deployed autonomously. Each PCAD section is comprised of three squads each. Each prolonged care squad is capable of being forward deployed (with either medical or sustainment transportation support) to a Role 2 medical company. When deployed, the PCAD is most effective when its sections are deployed forward in the division AO under the C2 of the division aligned MEDBDE or HHD, hospital center. PCAD squads are further attached to a Role 2 medical company, as needed. The Role 2 medical company provides support functions that the PCAD is not designed nor equipped to provide for itself. See Appendix B of this publication for additional planning factors that may impact employment of the PCAD and prolonged care operations. Figure 4-1 depicts the task organization and composition of the PCAD.



Legend:
NCO noncommissioned officer PCAD medical detachment (prolonged care augmentation

Figure 4-1. Task organization of the prolonged care augmentation detachment

EMPLOYING THE PROLONGED CARE DETACHMENT

4-24. The function of this detachment is to augment prolonged care for the Role 2 medical company with its mix of physician assistant and nursing personnel along with providing an en route care capability with its critical care nurse. The PCAD squad will normally be aligned with the patient holding squad but may assist with triage and treatment as needed. Organic personnel of the detachment, section, or squad prepare the medical equipment set, plan transportation requirements in preparation for operations or onward movement, and coordination with the supported unit to prepare for PCAD operations. The detachment is normally assigned to a corps-aligned MEDBDE with sections attached to division-aligned MEDBDE and attached to a Role 3 hospital and squads further attached to Role 2 medical companies.

4-25. Mission dependent, in a corps with three divisions, the detachment normally retains two (2) PCAD sections to operate in the corps support area and provides each division with one (1) PCAD section each. The PCAD sections that remain in the corps support area may assist in augmenting intertheater evacuation or provide prolonged care or en route care within the corps rear area.

4-26. The supporting MEDBDE operating in the division AO provides C2 for the forward deployed PCAD section, and it may be further attached to a Role 3 hospital in support of the division. When a PCAD squad is forward deployed to a maneuver brigade, the supported brigade will provide C2 all support requirements. This is normally the Role 2 BSMC.

4-27. Once the sections are deployed, the headquarters section may be attached to the following medical C2 or medical control organizations:

- To the MEDBDE, S-3 PM branch.
- To the MMB, medical operations section.

4-28. If no MEDBDE or MMB is aligned with the corps or division, then the headquarters section may be attached to the corps or division surgeon section to augment PM operations. The division surgeon section should outline the C2 and support relationships in the order or plan.

PLANNING

4-29. Tactical planning for employment of the prolonged care detachment is the responsibility of the corps or division surgeon section in coordination with the supporting MEDBDE. Operational and support estimates are developed by the surgeon section along with input from the medical C2 staff at echelon and are used in the planning process to develop prolonged care support estimates within corps and division AOs. All prolonged care operation planning factors should be considered during the initial development of the OPORD and plan. The plan is updated, as required, to meet METT-TC (I) and HSS operational requirements. Though not all inclusive, table 4-1 depicts several prolonged care planning considerations that may be used in determining the full potential and or limitations of prolonged care support.

Table 4-1. Prolonged care detachment planning considerations

● The medical detachment (prolonged augmentation care) (PCAD) has limited organic transportation assets, and plans to move a PCAD section or squad will require coordination with other medical or sustainment units for transportation support which may include: ▪ 12 personnel (per PCAD section) and four personnel (per PCAD squad). ▪ Three trailers (per PCAD section) and one trailer (per PCAD squad) with corresponding prolonged care medical equipment set. ● The detachment has limited organic communication equipment and relies on supported unit. ● Prolonged care assets are scarce. There is only one PCAD per corps, plan their use accordingly. ● Use of en route care capabilities should be thoroughly planned. Medical commanders, hospital commanders, surgeon sections, and planners should take into consideration that when the critical care nurse is placed on an en route care mission that they may not know when that capability will return and could incur additional transportation planning.
Legend: PCAD medical detachment (prolonged augmentation care)

Running Estimates

4-30. To ensure the success of the detachment, the PCAD leaders should maintain accurate running estimates, including those items of equipment, supply, and personnel which enable the PCAD sections and squads to successfully deploy forward with the division and maneuver brigade echelons. The PCAD leaders should identify minimum required stockage levels of each item and take steps to ensure timely resupply before low stockages negatively affect PCAD operations. PCAD leaders should also identify as critical information requirements those items which would require a decision if stockages become low. Examples of the items to be included in the PCAD running estimate may include, but are not limited to—

- Blood (on-hand and required).
- Medications.
- Medical evacuation support (availability and times).
- Medical device maintenance.
- Rations.
- Water.

4-31. Requests for PCAD support is dependent on the PAR, casualty estimate, and the orders process and is inherent in the operations staff channel. It is difficult to forecast when prolonged care may be required. To address this, when analyzing the corps' casualty estimate, the medical planner should also consider the enemy's array of forces and capabilities and discuss with the S-2 (G-2) the feasibility of having delayed evacuation during the planned operation. After considering the planning factors through the military decision-making process to determine whether that prolonged care capabilities are required, the corps surgeon (through the corps G-3) requests prolonged care assets from its supporting MEDBDE. If the MEDBDE does not have prolonged care capabilities assigned it will request them from the TMC. The surgeon's staff section should be simultaneously coordinating at echelon to synchronize the prolonged care within the corps AO. For detailed information on specialized augmentation training considerations, see Appendix F of this publication.

Basis of Allocation

4-32. The PCAD is allocated one per corps.

Mobility

4-33. This unit has very limited organic vehicles and must rely on external assets for mobility to move personnel and trailers.

SECTION II – MEDICAL DETACHMENT (MINIMAL CARE) (120-COT)

4-34. This section provides a discussion of the medical detachment (minimal care) (120-cot) mission, assignment and dependencies, BOA, capabilities and functions, mobility, and employment.

MISSION

4-35. This detachment provides minimal and convalescent hospital care, nursing, and rehabilitative services for up to 120 ambulatory patients.

ASSIGNMENT AND DEPENDENCIES

4-36. See the field hospital (32-bed) section for descriptions of what an assignment and dependency mean. The medical detachment (minimal care) has many dependencies due to its task organization and mission.

4-37. The medical detachment (minimal care) in coordination with MEDBDE, hospital center, or field hospital (32-bed) leaders should build on the list of dependencies from the Section I and in include them in their unit TACSOP as required and describe in detail the nature of each dependency and how these units will support the detachment.

ASSIGNMENT

4-38. This detachment will be assigned to a MEDBDE and normally attached to a Role 3 hospital.

DEPENDENCIES

4-39. This unit is dependent upon—

- The hospital or medical unit to which attached for food service, water distribution, religious, legal, force health protection, logistical services, finance, personnel and administrative services, unit health services, patient administration, medical maintenance, supply (all classes), and unit maintenance for the detachment's communication equipment and additional power generation requirements.
- The DCAS for treatment of dental patients held in a minimal care ward.
- The medical detachment (combat and operational stress control) for treatment of behavioral health patients held in a minimal care ward.
- HHC and STB, sustainment brigade or HHC and STB, division sustainment brigade for transportation services when single lift requirements exceed the HHD, hospital center or supported unit transportation capability, transportation and equipping for RTD personnel, to include individual clothing and equipment, seasonal outer garments, chemical protection garments, and shower and laundry services not related to patient care.

CAPABILITIES

4-40. This detachment provides—

- Command and control of organic elements to include health support planning, policies, and support operations within the detachment's AO.
- Information to commanders and their staffs on the health and status of Soldiers in their commands.
- Augmentation of the hospital to which attached to provide hospitalization and minimal nursing care, for up to 120 ambulatory patients and for reconditioning and rehabilitation for those patients who can RTD within the theater evacuation policy or who are awaiting further medical evacuation.
- Provides 40-cot minimal care ward in support of holding/restoration of behavioral health patients for up to seven days (when augmented with combat and operational stress control personnel).
- Physical therapy and occupational therapy services for patients.
- Augmentation of the emergency nursing capabilities of the hospital to which attached during MASCAL situations.
- Augmentation to the nutrition care capabilities of the Role 3 hospital to which attached to support patient feeding of this detachment.
- Augmentation to the patient administration section capabilities of the hospital to which attached.
- Three days of supply for all organic elements upon deployment and during routine operations.
- Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

FUNCTIONS

4-41. The medical detachment (minimal care) is normally attached to a Role 3 hospital and is task organized into three sections: a detachment headquarters, an occupational and physical therapy section, and three minimal care wards. Each section's duties and responsibilities are discussed below.

DETACHMENT HEADQUARTERS

4-42. The detachment headquarters provides command and command, detachment level administration, supply support and plans and coordinates detachment operations. Personnel of the headquarters and support section provide supply and services to augment the respective sections of the hospital to which attached.

4-43. The detachment headquarters performs unit plans, coordinates movement requirements, routine and specialized operations, mission-related task organization, and coordinates directly with the Role 3 hospital to which attached. The paragraphs below provide an overview of the primary functions of personnel assigned to the detachment headquarters.

Commander

4-44. The detachment headquarters include a commander (66H). The detachment commander should have a thorough understanding of minimal care operations to provide overarching C2 or minimal care consultation to corps or division level medical commanders, hospital commanders, or surgeon sections. The commander has the overall responsibility for employing and implementing minimal care ward assets within the detachment's AO.

Executive Officer

4-45. The detachment headquarters include an executive officer (70B). The executive officer plans, coordinates, monitors, evaluates, and advises the commanders and staff in both medical and non-medical areas. This includes employing the detachment, PM, and treatment, organizational administration, supply, training, operations, intelligence, transportation, and maintenance operations within the detachment.

Detachment Sergeant

4-46. The detachment headquarters include a detachment sergeant (68W). Serves as the senior enlisted advisor to the detachment commander and medical training NCO. Responsible for all detachment enlisted personnel, medical equipment/supplies, coordination of key resources and mentorship of the junior medical officers. Primary focus is directing all resupply and maintenance activities. Specific duties and responsibilities of the detachment sergeant may include:

- Planning and supervising the detachment's administration, logistics, and maintenance operations.
- Assists the commander and executive officer in supervising the detachment operations.
- responsible for the training of the detachment's Soldiers and provides training and supervision of operational security procedures.
- Prepares reports of detachment activities and functions.

Supply Sergeant

4-47. The detachment headquarters includes a supply sergeant (92Y). The detachment supply sergeant supervises or performs duties involving request, receipt, storage, issue, accountability and the preservation of individual, organizational, installation, facilities and expendable/durable property and equipment. Operating and maintaining the Global Combat Support System-Army an automated supply system for accounting of organizational and installation property and equipment. Specific duties and responsibilities of the supply sergeant may include:

- Receiving, inspecting, inventorying, loading, unloading, segregating, storing, issuing, delivering and turning-in organization and installation property and equipment.
- Operating the Global Combat Support System-Army unit level computer.
- Preparing all unit/organizational supply documentation and coordinating property and equipment activities.
- Maintaining the automated supply system for accounting of organizational property and equipment.
- Validating and posting transactions to organizational and installation property records and updates/maintains supporting document files.
- Inspecting completed transactions/work for accuracy and compliance with established policy and procedures.
- Determining required methods of relief from responsibility for lost, damaged, and destroyed property and equipment items.
- Reviewing and annotating changes to the unit material condition status report.
- Issuing and receiving small arms; secures and controls weapons, ammunition, and sensitive items in security areas; and scheduling and performing preventive and organizational maintenance on weapons and sensitive items.

Human Resources Specialist

4-48. The detachment headquarters include a human resources specialist (42A). The detachment human resources specialist performs personnel and administrative functions in support of the detachment and advises the detachment leaders on human resource matters. The human resources specialist operates and manages field personnel information systems and monitors system activities. The human resources specialist provides and manages the postal requirements for the detachment. Specific duties and responsibilities of the human resources specialist may include:

- Preparing and reviewing personnel casualty documents.
- Preparing and processing recommendations for awards and decorations and arranges for awards ceremony.
- Preparing and monitoring requests for identification cards and tags and absences.
- Typing military and nonmilitary correspondence in draft and final copy.
- Preparing and maintaining functional files per Army Records Information Management System.

OCCUPATIONAL AND PHYSICAL THERAPY SECTION

4-49. The occupational and physical therapy section provides occupational therapy and physical therapy services to the detachment's inpatients. Personnel in this section augment the respective sections of the Role 3 hospital to which attached.

4-50. This section provides occupational therapy and physical therapy services to the detachment's inpatients. The paragraphs below provide an overview of the primary functions of personnel assigned to the occupational and physical therapy section.

Occupational Therapist

4-51. The occupational and physical therapy section include an occupational therapist (65A). This officer plans and supervises occupational therapist and occupational therapist specialist programs within the detachment and in an OE. May serve as physician extenders-direct access providers. Ordinarily, provides services upon referral from physicians and other health care providers. The occupational therapist maximizes the functional abilities of service members. Specific duties and responsibilities of the occupational therapist include:

- Educating and training to enhance habits, self-care, coping skills, and activities of daily living.
- Identifying and evaluating mental and physical stressors, teaching prevention and coping skills.
- Designing and developing splints, special equipment, and their application to disabilities.
- Using physical reconditioning techniques to maintain fitness, hasten recovery, improve independence of self-care and activities of daily living.
- Serving as consultant to commanders and the military community providing guidance within the areas of injury prevention and ergonomics for work-site evaluation, task analysis and modifications to the workplace.
- Conducting functional evaluations of and provide individualized treatment to service members suffering the effects of traumatic brain injury and acute and chronic combat and operational stress.
- Conducting battlefield unit needs assessments to determine unit mental health status.
- Providing reconditioning and treatment to increase physical fitness, duty related skills and work performance to maximize RTD as soon as possible.

Physical Therapist

4-52. The occupational and physical therapy section include a physical therapist (65B). The physical therapist plans and supervises physical therapist programs through patient self-referral or referral from a medical or dental officer or other health professionals in an OE. Also serves as an independent practitioner and physician extender, evaluating, managing, and providing treatment to patients with neuromusculoskeletal disorders. Specific duties and responsibilities of the physical therapist include:

- Primarily evaluating and treating disorders of human motion using physical/chemical therapeutic means, (such as skills, heat, cold, electricity, water, sound, and light, gravity as well as applied techniques of therapeutic exercise, joint mobilization biomechanics, pressure and traction).

- Assisting the promotion of functional independence, healing and prevent or minimize the disability caused by disease, surgery, or trauma.
- Serving as consultant to commanders and the military community providing guidance within the areas of physical fitness, physical training, and injury prevention.
- Developing and conducting training programs on injury prevention and physical rehabilitation for medical and non-medical personnel.
- The primary wartime role is providing burn and wound care and evaluation and treatment of patients with neuromusculoskeletal conditions to minimize RTD time.

Physical Therapist Sergeant

4-53. The occupational and physical therapy section includes a physical therapist specialist (68F). The physical therapy specialist, under the direction of a physical therapist and following medical referral, supervises or administers physical therapy to decrease physical disabilities and promotes the physical fitness of patients. Specific duties and responsibilities of physical therapist specialist may include:

- Assisting with the management of the detachment's physical therapy section.
- Administering physical therapy treatment to battlefield patients.
- Performing interviews, tests, and assists patients in activities with outpatient care and treatments or with inpatient care and treatment under the supervision of a physical therapist.

Occupational Therapist Sergeant

4-54. The occupational and physical therapy section include a occupational therapist specialist (68L). The occupational therapy specialist, under the direction of a registered military occupational therapist, supervises or interviews, tests, plans treatment programs, and teaches and assists patients to facilitate maximum recovery by decreasing physical and mental disabilities resulting from illness or trauma, prevent injury, and promote life-style modification to improve fitness. Specific duties and responsibilities of occupational therapist specialist may include:

- Assisting with the management of the detachment's occupational therapy section.
- Administering emergency and routine combat stress or orthopedic treatment to battlefield patients.
- Performing interviews, tests, and assists patients in activities with outpatient care and treatments or with inpatient care and treatment under the supervision of an occupational therapist.

Patient Administration Specialist

4-55. The occupational and physical therapy section include two patient administration specialists (68G). The patient administration specialists possess the working knowledge of patient medical eligibility programs such as Defense Enrollment Eligibility Reporting System and supervises or performs administrative duties in the detachment of supported unit's patient administration section. Specific duties and responsibilities of patient administration specialist may include:

- Augmenting the patient administration staff of the Role 3 hospital.
- Compiling data and preparing required statistical report on inpatient visits, admissions, dispositions, and other selected workload area within the detachment or supported MTF.
- Preparing and consolidating medical documents and files authorized documents ensuring proper sequencing of forms.
- Appling knowledge of medical terminology as it applies to anatomy and physiology.
- Maintaining a medical record tracking system within the detachment or supported MTF.
- Processing patients for admission to the detachment or supported MTF.
- Checking and verifying eligibility for care.
- Prepare patient and associated documentation for medical evacuation.

Nutrition Care Specialist

4-56. The occupational and physical therapy section include three nutrition care specialists (68M). The nutrition care specialist serves as a nutrition extender to the 65C00 dietitian by providing medical nutrition

care therapy to patients and staff within an OE. Specific duties and responsibilities of nutrition care specialists may include:

- Augmenting the nutrition care staff of the Role 3 hospital.
- Performing basic clinical dietetics functions in the dietary management and treatment of patients.
- Performing nutritional assessments and screening of individual patients for nutritional risk.
- Preparing and serving modified and regular food items in the management of the normal nutrition needs, under the supervision of a dietitian or NCO.

MINIMAL CARE WARD (40-COT)

4-57. Three 40-cot minimal care nursing squads provide nursing supervision and management of medical or surgical patients who are ambulatory and partially self-sufficient and are in the final stages of recovery, awaiting RTD, or who are awaiting further MEDEVAC. The focus of nursing management is on an aggressive therapeutic environment which speeds recovery for RTD, or which ensures stabilization and preparation for medical evacuation. Nursing personnel administer medications and treatments which cannot be done by the patient and provide instruction in self-care and post-hospitalization health maintenance. Nursing personnel coordinate with the occupation/physical therapy personnel for rehabilitation and reconditioning of patients. Nursing personnel also coordinate with the Role 3 hospital to which attached for routine and emergency medical treatment needs of patients. Nursing and enlisted personnel monitor individuals who may have been exposed to an infectious agent and require isolation until disease manifests or the individual is determined not to be infected or infectious. When attached to the Role 3 hospital, it falls under the supervision of the chief nurse. The paragraphs below provide an overview of the primary functions of personnel assigned to the minimal care ward (40-cot).

Medical/Surgical Nurse

4-58. The ward includes a medical/surgical nurse (66H). Specific duties and responsibilities of the medical/surgical nurse include:

- Serving as the head nurse and providing professional nursing care, services, and health promotion to patients admitted to the minimal care ward.
- Responsibilities may span ambulatory or inpatient medical-surgical nursing and may include administrative or educational responsibilities.
- Supervision and medical oversight of assigned enlisted personnel.

Wardmaster

4-59. The wardmaster supervises activities within the minimal care ward. Responsible for all assigned enlisted personnel, medical equipment/supplies, and coordination of key resources. Performs medical interventions with a higher technical ability. Principal trainer of squad/section personnel. Specific duties and responsibilities of the wardmaster include:

- Examining and treating patients under the supervision of the medical/surgical nurse.
- Optimizing use of Class VIII.

Health Care Sergeant

4-60. The ward includes 2 medical care sergeants (68W). Specific duties and responsibilities of health care sergeant may include:

- Administering routine medical treatment under the supervision of the medical/surgical nurse or wardmaster.
- Supervising assigned enlisted personnel medical readiness and requesting medical supplies.

Health Care Specialist

4-61. The ward includes health care specialists (68W). Specific duties and responsibilities of health care specialist may include:

- Administering routine medical treatment under the supervision of the medical/surgical nurse, wardmaster, or health care sergeant.

- Responsible for ward level personnel medical readiness, medical supplies, and equipment.

EMPLOYMENT

4-62. The medical detachment (minimal care) is normally employed in support of a Role 3 hospital and attached to the HHD, hospital center for general support. This detachment can also provide ambulatory inpatient support to behavioral health and dental patients with provider augmentation from the medial detachment (combat and operational stress control) or DCAS. The minimal care detachment can also provide three separate minimal care wards (40-cot) for those ambulatory patients expected RTD within the theater evacuation policy or who are awaiting further medical evacuation. Per the orders process, each minimal care ward (40-cot) can deploy independent of the detachment, METT-TC (I) dependent.

4-63. On arrival in the AO, the detachment establishes contact with the supporting unit to coordinate its support requirements. When attached to a Role 3 hospital the detachment also obtains situational updates and arranges for PM items and augmentation of patient administration, nutrition care, occupational therapy physical therapy, and any other operational requirements support. For additional planning factors that may impact minimal care operations, see Appendix B of this publication.

4-64. In preparation for deployment, the medical detachment (minimal care) should take every opportunity to train. For detailed information on specialized augmentation training considerations, see Appendix F of this publication. Figure 4-2 depicts the task organization and composition of the medical detachment, minimal care (120-cot).

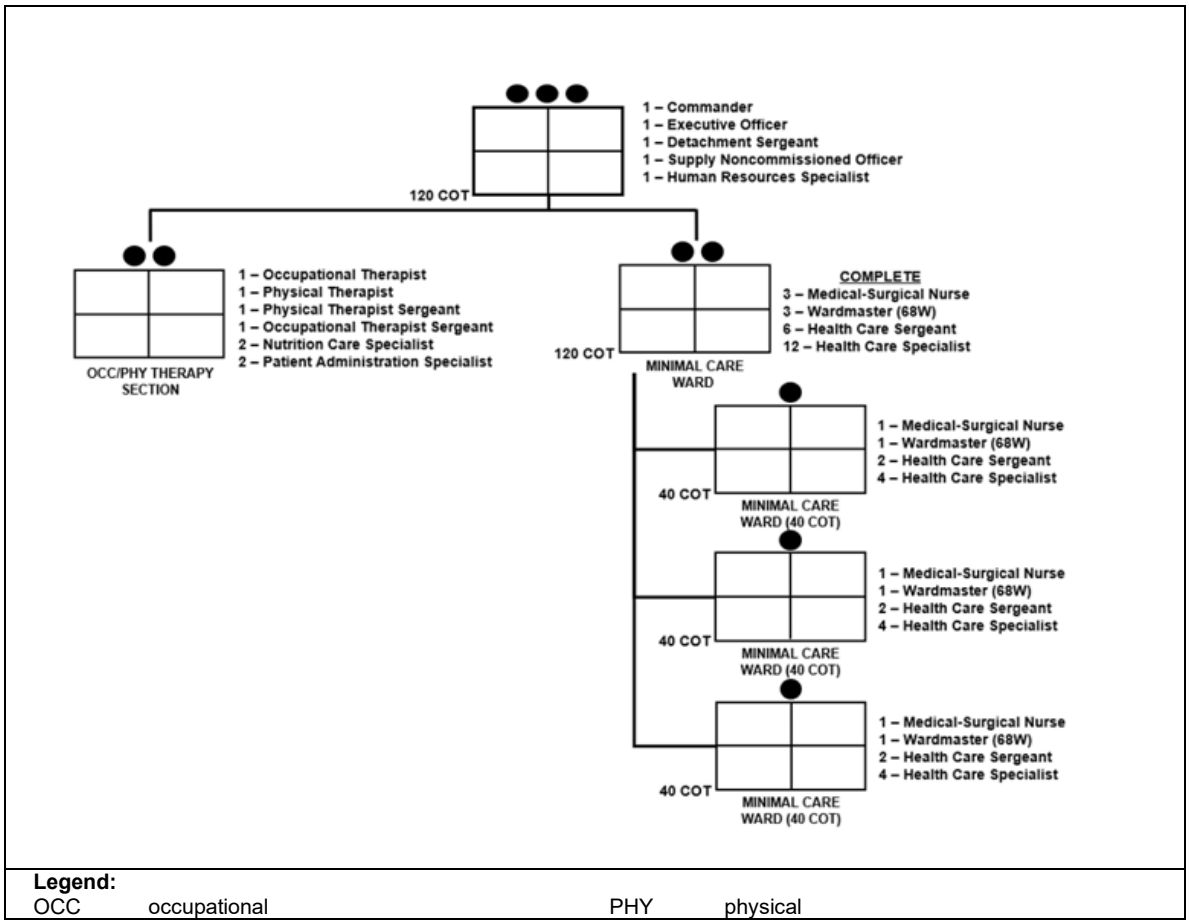


Figure 4-2. Task organization of the medical detachment minimal care (120-cot)

EMPLOYING THE MINIMAL CARE DETACHMENT

4-65. The function of this detachment is to perform minimal care nursing, occupational therapy, and physical therapy for the ambulatory patients admitted to the Role 3 hospital to which attached and to other eligible personnel as determined by approved plans and orders. Organic personnel of the detachment set up and break down unit shelters and power-generating equipment in preparation for detachment operations or detachment movement, set up the nursing care and occupational therapy, physical therapy areas, and perform routine minimal care nursing and rehabilitation and reconditioning for ambulatory patients expected to RTD within the theater evacuation policy or who are awaiting MEDEVAC and require continued nursing supervision to include those individuals being monitored after suspected biological warfare agent and communicable disease contact. The detachment is normally attached to a Role 3 hospital and provides a detachment headquarters, an occupational and physical therapy section, and three minimal care wards. The DCAS and the medical detachment (combat and operational stress control) can provide appropriate support to augment the medical detachment (minimal care) treatment capabilities, if required.

4-66. When deployed, the minimal care detachment is most effective when attached to a Role 3 hospital. The Role 3 hospital provide support functions that the minimal care detachment that it is not designed or equipped to provide for itself. As required, the minimal care detachment can be split into three minimal care squads comprised of 40-cots each. Each minimal care squad is capable of being forward deployed (with either medical or sustainment transportation support). The minimal care squad can forward deploy within a corps or division AO in support of a field hospital, medial detachment (combat and operational stress control), or DCAS.

PLANNING

4-67. Minimal care detachment operations involve all the factors that are considered in the initial developmental stages of the medical plan. The medical plan is updated to meet METT-TC (I), and operational requirements. Requests for minimal care detachment support is dependent on the PAR, BOA, and the orders process and resides in the operations staff channel. For example, if a corps' casualty estimate coupled with the eligibility of care determination and theater evacuation plan determines that minimal care capabilities are required, the corps surgeon (through the corps G-3) requests that support from its supporting MEDBDE. If the MEDBDE does not have minimal care capabilities assigned it will request them from the TMC. The surgeon's staff sections should be simultaneously coordinating at these echelons to synchronize the minimal care within the corps AO.

4-68. Operational planning for employment of the minimal care detachment is the responsibility of the TMC or the MEDBDE with input from the minimal care detachment leaders. Operational and support estimates developed by the medical staff, along with input from the medical staff at echelon is used in the planning process to develop the AHS support estimates for medical support at EAB and elements forward deployed in the division AO. All factors should be considered during the initial development of the operational orders, and plans. The plan is updated, as required, to meet HSS operational requirements. Though not all inclusive, table 4-2 on page 106 depicts several minimal care planning considerations.

Table 4-2. Minimal care detachment planning considerations

- Detachment requires a minimum of four hours to set up and become functional.
- Detachment has no organic transportation and plans to move a single minimal care ward (40-cot) will require other medical units or sustainment transportation support to move:
  - Eight personnel.
  - One container (medical material sets: minimal care and physical-occupational therapy).
  - Two to three 18-foot by 35-foot tents per 40-cot ward as a planning factor.
- Mission dependent, should plan for behavioral health augmentation when receiving patient within this medical function.
- Mission dependent, should plan for dental augmentation when receiving patients within this medical function.
- Mission dependent, minimal care wards may require augmentation from the supporting Role 3 hospital.
- Should plan for additional infection control and safety precautions and reporting requirements if mission entails monitoring biological agent and infectious disease patients.

Running Estimates

4-69. To ensure the success of the detachment, the commander should maintain accurate running estimates, including those items of equipment, supply, and personnel which enable the detachment to successfully support Soldiers in the field. The commander should identify minimum required stockage levels of each item and take steps to ensure timely resupply before low stockages negatively affect detachment operations. The commander should also identify as commander's critical information requirements those items which would require a decision if stockages become low. For example, if quantities of on-hand pharmaceuticals drop below minimum stockage levels, a decision to execute an emergency resupply mission or divert casualties to another treatment facility may become necessary. Examples of the items to be included in the detachment running estimate may include, but are not limited to the following:

- Class VIII to include pharmaceuticals and medical maintenance.
- Medical evacuation support (availability and times).
- Fuel.
- Rations.
- Water.

Basis of Allocation

4-70. This detachment supports the requirement for all assigned AO minimal care ward cot requirements. For programming purposes, the BOA is 2.6 minimal care detachments per 1,000 Role 3 hospital patients. More specific BOA planning factors are:

- 25 % of the total WIA/DNBI.
- 21.5 % of blister; and 55% of nerve) and all communications zone minimal care ward cot requirements (75% of the total bed requirements with a 70% skip policy).
- To get total bed requirements, minimal care detachment, cot requirements should be added to the ICU and ICW bed requirements generated by the corps and echelons above corps Role 3 hospital.

Mobility

4-71. This organization does not have organic lift capability and requires transportation support for movement. This unit has 181,305 pounds (16,600 cubic feet) of TOE assets requiring transportation.

ESTABLISHING THE MINIMAL CARE DETACHMENT

4-72. The minimal care detachment may deploy using several different types of tents or shelter systems. The type of tentage used is based on the detachment’s modified TOE or common table of allowances. The configuration or layout of the minimal care detachment is influenced by factors such as the type and location

of the unit on which the detachment is in support of (Role 3 hospital, medial detachment [combat and operational stress control] or DCAS), terrain, and anticipated patient load.

4-73. The minimal care detachment requires around 4,500 square feet of space to operate while the minimal care squad (40-cot) requires around 1,500 square feet operate (when using 18 by 35-foot equivalent tents). For convenience and additional space, the detachment may choose to set up using multiples of a given shelter system or, if possible, occupy a building or hanger of opportunity. See figure 4-3 below and figure 4-4 on page 108 are examples of how a medical detachment (minimal care) and a minimal care squad (40-cot) may be configured.

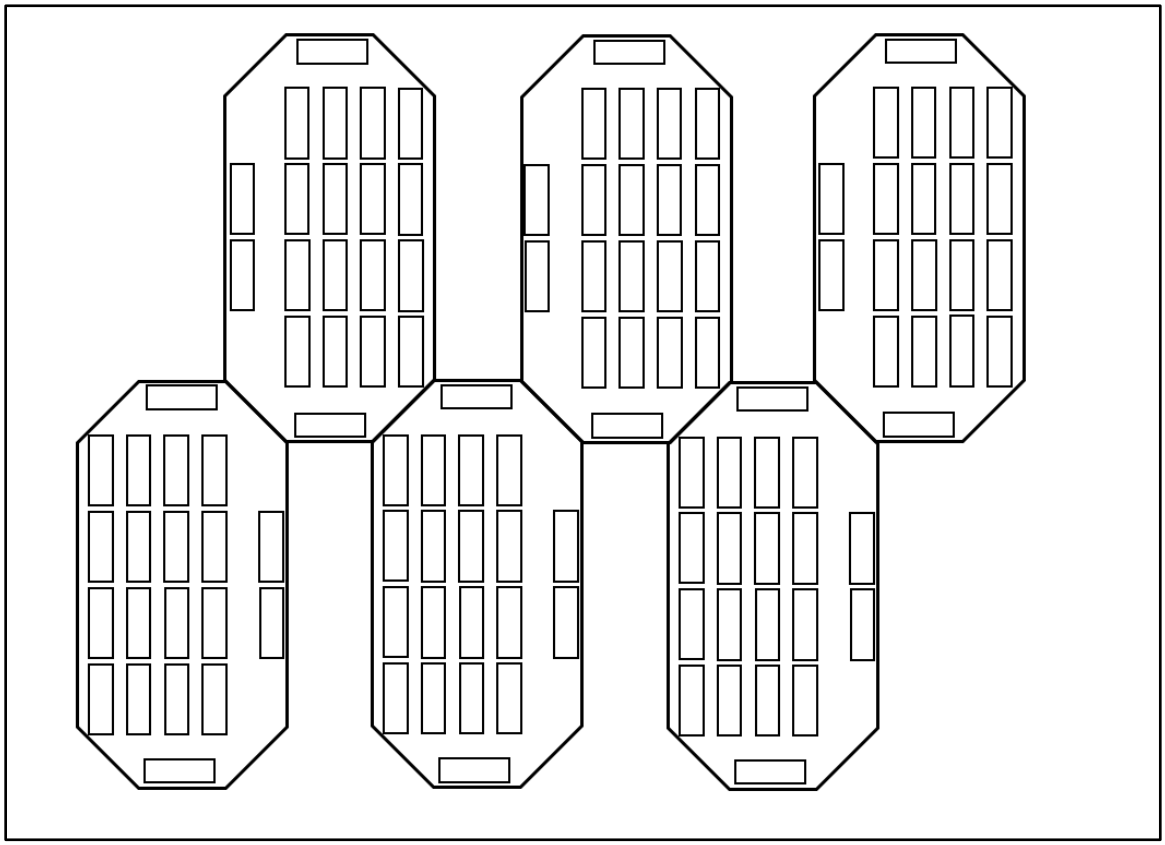


Figure 4-3. Notional minimal care detachment (120-cot)

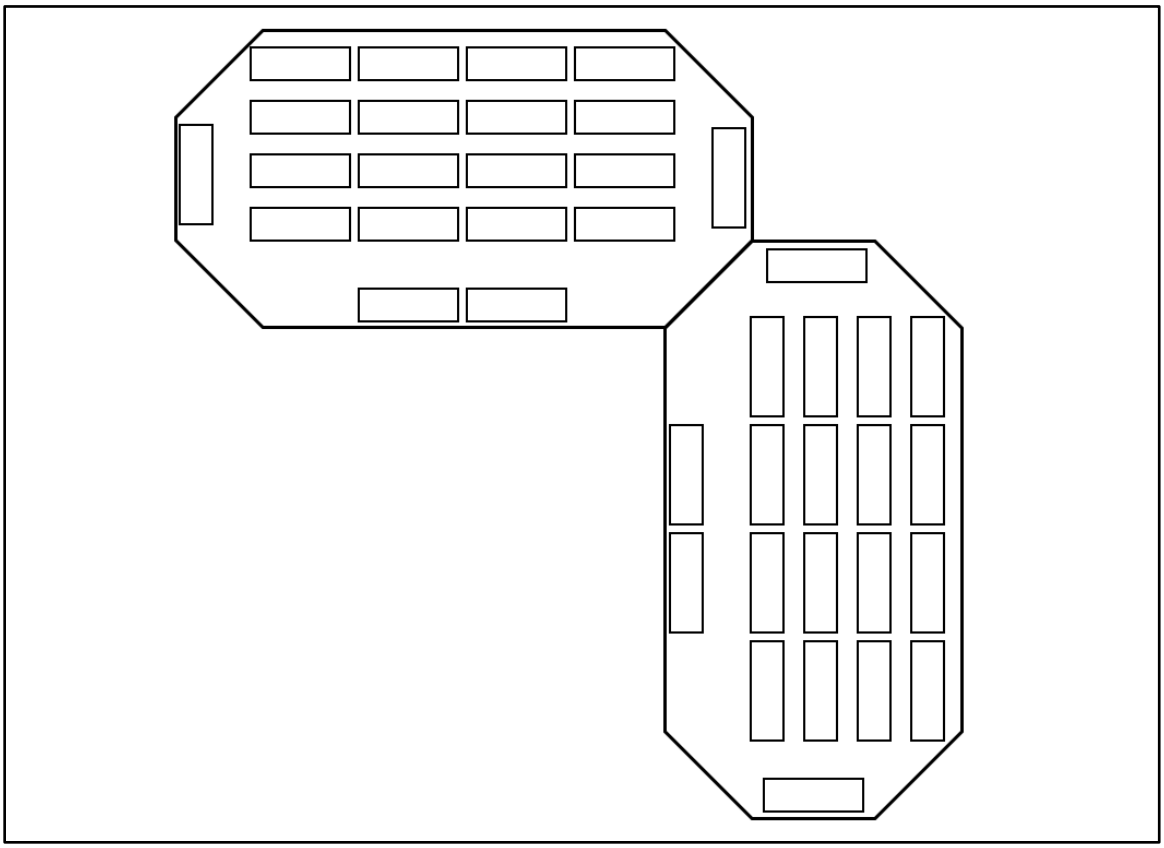


Figure 4-4. Notional minimal care ward (40-cot)

SECTION III – MEDICAL DETACHMENT (FORWARD RESUSCITATIVE AND SURGICAL)

4-74. This section provides an overall discussion of the FRSD allocation, assignments and capabilities, dependencies, employment, and organization and functions.

4-75. The FRSD is a Role 3 surgical capability that on order may be executed at Role 2. The FRSD is a 20-Soldier detachment that when attached to a Role 3 hospital may augment the OR section. When further attached to a Role 2 medical company, the FRSD may provide forward resuscitative and surgical interventions to render nontransportable patients sufficiently stable enough to allow for MEDEVAC to a Role 3 hospital. A ***nontransportable patient*** **is an individual whose medical condition is so severe that they require immediate stabilization or surgical intervention to prevent further deterioration and cannot be safely evacuated to a higher level of care without risking significant harm or compromise to their health.** The FRSD provides the capability to perform DCR and resuscitative surgery (often referred to as DCS) within the AO. Patients remain at the FRSD (for up to six hours) until they recover from anesthesia; once stabilized they are evacuated as soon as possible. The postoperative intensive care capacity of the FRSD is extremely limited and there is no organic holding capability. When collocated with a Role 2 medical company, the patient holding squad can provide a limited holding capability for the FRSD. The Role 2 medical company may be augmented with a PCAD squad which brings additional capabilities when paired with the patient hold squad that the FRSD may benefit from. The FRSD is not a self-sustaining unit and should be deployed with or attached to a Role 3 hospital or Role 2 medical company for support. Further, the FRSD is neither staffed nor equipped to provide routine primary care (sick call), x-ray, or clinical laboratory functions.

MISSION

4-76. The FRSD provides forward deployed DCR and DCS within an assigned AO to stabilize patients for further medical evacuation to the next higher role of medical care.

Note 1. DCR for the FRSD is a medical process that prevents or mitigates hypothermia, acidosis, and coagulopathy through combined treatment paradigms. It is comprised of early hemorrhage control, hypotensive resuscitation, (permissive hypotension), hemostatic resuscitation, prevention or alleviation of hypothermia and amelioration of acidosis through judicious use of blood products and hemodynamic resuscitation endpoints.

Note 2. DCS for the FRSD is the rapid initial control of hemorrhage and contamination with surgical packing and temporary closure to save the life of a Soldier, followed by a short post operative phase and evacuation to a Role 3 hospital.

ASSIGNMENT AND DEPENDENCIES

4-77. The FRSD, in coordination with the MEDBDE, hospital center, or field hospital (32-bed) leaders should build on the list of dependencies from the Section I of the unit's TOE. The FRSD TACSOP should include additional dependencies as required and further describe in detail the nature of each dependency and how those units support the detachment.

ASSIGNMENT

4-78. The FRSD is assigned to the MEDBDE and attached to a Role 3 hospital center when not operationally employed and further attached forward to a Role 2 medical company. When attached to a Role 2 medical company, the FRSD has access to—

- Additional imaging modalities (X-ray).
- Additional laboratory testing capabilities.
- Additional blood capacity.
- Patient holding.
- Medical evacuation support (via air or ground ambulance).

Note 1. Though the TOE states that the FRSD may be assigned to the TMC, this is highly unlikely.

Note 2. The FRSD is most effective and efficient when attached to a Role 2 medical company for support.

DEPENDENCIES

4-79. This unit is dependent upon—

- Appropriate elements within the AO for support in personnel services, financial management, administrative services, food service, communications, information management, logistical, mortuary affairs, religious, legal, power and generator, unit and field maintenance, security, and defense, CBRN defense, and AHS.
- When operationally attached to a Role 2 BSMC, the brigade medical supply office to provide—
  - Medical maintenance.
  - Resupply of Class VIIIA (medical materiel).
  - Resupply of VIIIB (blood and blood products).
- When operationally employed at EAB, the Role 3 hospital, MMB (through the medical logistics company), or the medical detachment, blood support provides—
  - Medical maintenance.
  - Resupply of Class VIIIA (medical materiel).
  - Resupply of VIIIB (blood and blood products).
- The medical company (air ambulance), to provide —

  - Army aeromedical evacuation support to and between roles of care within the AO.
  - Emergency Class VIII resupply.
  - Emergency movement of medical personnel to support the AHS mission.
  - Air movement of the FRSD equipment and supplies, when required.
- The medical company (ground ambulance) to provide—
  - Ground ambulance evacuation of patients between roles of care within the AO.
  - Emergency Class VIII resupply.
  - Emergency movement of medical personnel to support the AHS mission.
- Appropriate elements of the sustainment brigade, quartermaster company (aerial delivery support) or the brigade support battalion (airborne), infantry BCT (airborne) for —
  - Rigging when airdrop operations are required (airborne only).
  - Sling load operations when required.

4-80. When deployed as part of a multinational joint task force, or supporting special operations forces, medical planners and FRSD staff should consider personnel and equipment augmentation for C2, communications, medical operations planning, additional power generation, vehicle maintenance, force protection, force health protection, primary care and patient administration, pharmacy, patient holding, Class VIII resupply, medical device maintenance, x-ray services, and medical laboratory services.

4-81. The FRSD does not possess the personnel, equipment, medications, supplies, or administrative capabilities necessary to perform a primary care mission (sick call). However, if requested, FRSD personnel can augment the sick call capabilities of a supporting or supported MTF, at the discretion of the FRSD chief.

4-82. The FRSD's mission is to provide forward surgical capabilities. FRSD personnel are assigned weapons for personal defense and protection of the patients under their care in accordance with the Geneva Convention. FRSD cannot assist in the coordinated defense of the unit's area or installation and are dependent on the supported unit to provide security in accordance with the Geneva Conventions.

Note. The FRSD staff members are not trained to perform maintenance that exceeds the operator level on assigned equipment.

Medical Device Maintenance

4-83. When forward deployed with a Role 2 medical company, a contact repair team from the medical logistics company should accompany the detachment. The contact repair team assists the biomedical equipment maintenance specialist from the brigade medical supply office in providing medical maintenance. The contact repair team should remain in place if the FRSD is engaged.

Blood and Blood Support

4-84. The FRSD is authorized four blood storage units which can be set for frozen or refrigerated storage. Each storage device can maintain 40 x 450 milliliter or 60 x 250 milliliter units regardless of setting. Frozen plasma or cryogenic units are stored using the freezer setting. RBC, liquid plasma, platelets, and low titer group O WB are stored using the refrigerator setting. Detachment personnel should be trained and equipped to collect fresh WB during emergency situations by conducting a walking blood bank when the need for blood and blood products exceeds the available supply. Additional blood storage capacity is provided by the supporting Role 2 medical company.

4-85. Requests for resupply of blood and blood products are submitted by the administration/supply section to the supporting medical detachment, blood support, or other blood supply unit as designated by the combatant command joint blood program officer.

4-86. The medical detachment (blood support) provides collection, manufacturing, storage, and distribution of blood and blood products to medical units operating at brigade, EAB, and to other services as required. The medical detachment (blood support) can deploy a collection storage and distribution team or a collection manufacturing and distribution team to collect WB from available donor pool or assist with blood distribution to MTFs. For additional information on blood support and medical maintenance, refer to ATP 4-02.1.

Disposition of Remains

4-87. If a patient dies in the care of the FRSD while forward deployed with a Role 2 MTF, a DD Form 1380 must be completed then signed by a physician. Coordination is then made with the Role 2 medical company and the deceased is immediately removed from the FRSD facility to the supported MTF's temporary morgue for further processing. The supported MTF is responsible for notifying the deceased's unit and the mortuary affairs coordinator for the coordination, movement, and transport of human remains to the designated mortuary affairs collection point.

CAPABILITIES

4-88. A standardized, rapidly deployable, networked, self-mobile, modular, and scalable resuscitative and surgical team capable of supporting short (less than 72 hours) and extended (greater than 72 hours) operations, including the ability to support split operations. The team is modular and scalable, with the ability to provide emergency treatment to receive, triage, and prepare incoming patients for surgery; and provide the required surgery and continued postoperative care.

4-89. A complete FRSD consisting of the following components: administration, supply, two surgical and two resuscitative sections (20 personnel). In this configuration, the FRSD provides emergency treatment to receive, triage, and prepare 30 incoming patients for surgery over a 72-hour period. This provides the required surgery and continues postoperative care for critically wounded and injured patients with organic medical equipment sets (MES). Postoperative care can manage eight patients over six hours postsurgery.

4-90. Two forward resuscitative and surgical squads (FRSS) capable of supporting split operations. Each FRSS consists of administration and supply, resuscitative, and surgical teams (10 personnel). In this FRSS configuration, the FRSD provides emergency treatment to receive, triage, and prepare 12 incoming patients for surgery over a 72-hour period; provides 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 postsurgery.

4-91. Two surgical teams, capable of supporting very short duration (24-hours) operations, consisting of only a surgical team (six personnel). In its smallest configuration, the single surgical team provides emergency treatment to receive, triage, prepare four incoming patients for surgery, and conduct the required surgery. The surgical team has a limited postoperative care capability for patients over a period of 24-hours.

4-92. Urgent initial surgery for otherwise nontransportable patients, primarily when attached to a Role 2 MTF to maximize health system synergies (for example, access to X-ray; ancillary support; patient holding; and proximity to evacuation modalities), or when collocated with another organization capable of meeting its support requirements.

4-93. Health service support operations for both short (less than 72 hours) and extended (greater than72 hours) duration missions dependent on METT-TC (I) if it achieves its personnel work rest cycles and gains associated dependency support.

4-94. Postoperative acute nursing care for up to eight patients simultaneously for up to six hours prior to further patient evacuation.

4-95. Technical advice and assistance to the supported unit surgeon and the surgeon section or medical operations center for the surgical services portion of the supported unit plans and policies.

4-96. Surgical augmentation of the of Role 3 hospital's surgical capability.

4-97. Individuals of this organization are provided weapons for personal defense and protection of the patients under their care.

DAMAGE CONTROL RESUSCITATION AND SURGERY

4-98. When forward deployed, the FRSD provides DCR and DCS capabilities to the Role 2 medical company. The following discussion describes some (but not all) of the most common resuscitative and surgical procedures performed to reduce morbidity and mortality of injured Soldiers and maximize patient outcomes.

Damage Control Resuscitation

4-99. DCR refers to those rapidly implemented medical interventions that preventor mitigate a patient's irreversible physiologic deterioration. These interventions include but are not limited to:

- Rapid hemorrhage control.
- Hypotensive resuscitation (permissive hypotension).
- Rapid replacement of circulating volume.
- Prevention or treatment of hypothermia and correction of acidosis through use of blood products and medications.
- Ongoing resuscitation in the post-op recovery area.

Damage Control Surgery

4-100. DCS refers to a series of rapidly implemented surgical interventions that include but are not limited to:

- Laparotomy for control of trauma induced internal bleeding and enteric spillage.
- Abbreviated thoracotomy for penetrating chest injury to control trauma-induced internal bleeding.
- Placement of external fixators.
- Temporary restoration of blood flow to an injured limb using vascular shunts.
- Rapid amputation of mangled limbs.
- Fasciotomy.
- Decompression of cardiac tamponade.
- Emergency decompressive craniotomy.

FUNCTIONS

4-101. The FRSD's modular design and organization enables its staff to provide a tailored forward resuscitative and surgical support package based on the type and number of operations being conducted. The detachment's design provides a flexibility that allows it to be employed as a complete detachment, forward resuscitative and surgical sections, or as individual surgical teams. This modular design, however, limits what the detachment and its subsets can accomplish without being attached to a Role 2 medical when operationally employed.

DETACHMENT

4-102. The organizational construct of a complete FRSD includes an administration/supply section, a resuscitative section, and a surgical section. Figure 4-5 on page 113 depicts a complete FRSD using approved AHS military symbols.

4-103. In this configuration, the detachment is designed and equipped to receive, triage, provide emergency treatment, and prepare up to 30 incoming patients for DCR and/or DCS over a 72-hour period using its organic medical equipment set. The detachment can provide post-operative care for no more than eight (8) patients at one time. The FRSD can monitor a post-operative patient for up to six hours after which the patient is generally determined to be sufficiently stable to survive evacuation to the next role of care.

SECTION AND SQUAD

4-104. There are situations when it may be necessary for the FRSD to provide forward resuscitative and surgical support for multiple units conducting concurrent operations. To meet this requirement, the detachment is staffed and equipped to divide the administration/supply section, the resuscitative section, and the surgical section evenly to form two (2) composite FRSS thus establishing a split FRSD. Figure 4-6 on page 114 depicts a split FRSD.

4-105. In this FRSS configuration, the detachment is designed and equipped to receive, triage, provide emergency treatment, and prepare up to 12 incoming patients for DCR and/or DCS over a 72-hour period using its organic medical equipment set. The FRSS can monitor a post-operative patient for up to six hours after which the patient is generally determined to be sufficiently stable to survive evacuation to the next role of care. The FRSS can provide post-operative care for no more than four patients at one time.

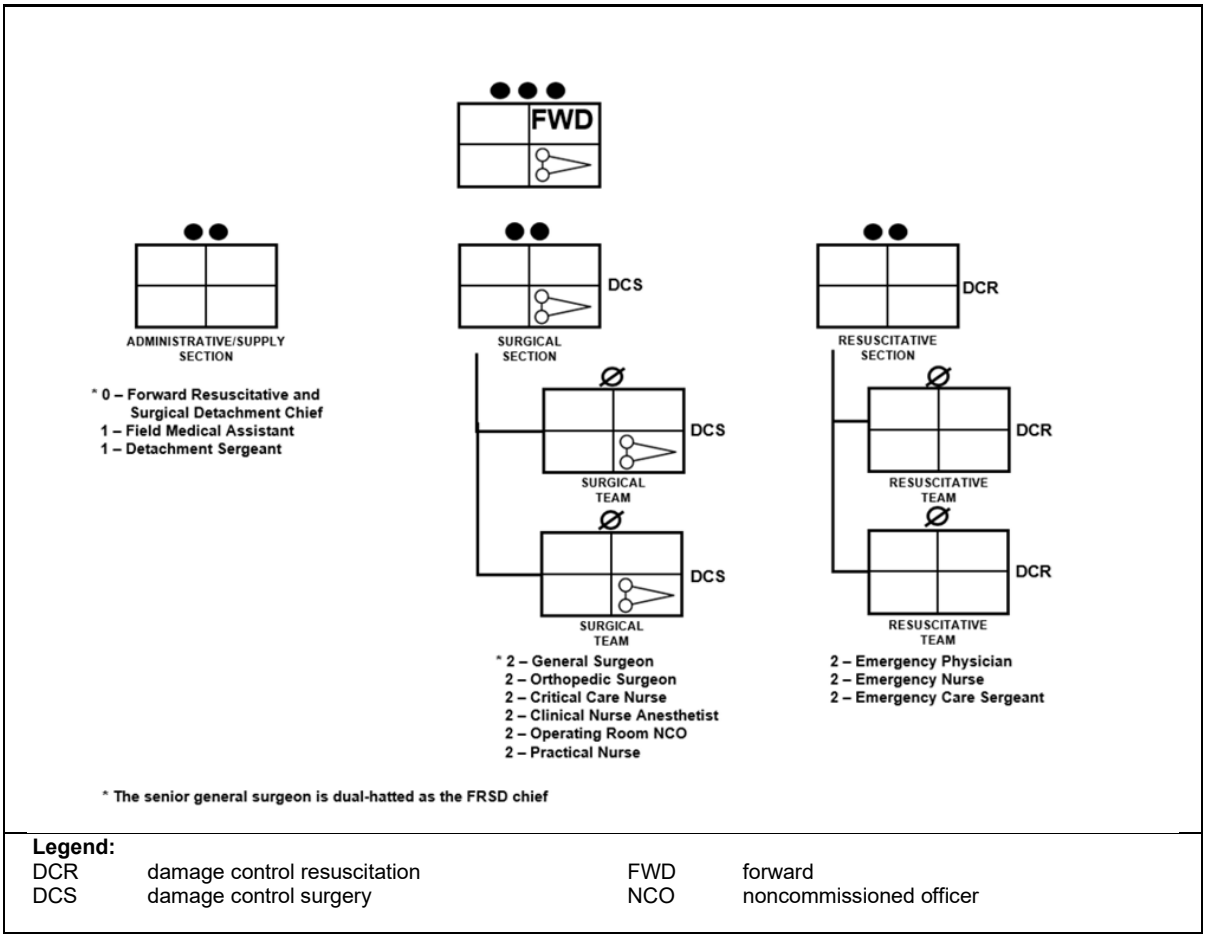
TEAM

4-106. The team is the smallest element within the detachment and constitutes the fundamental building block on which the FRSD is built. Based on this design, the detachment chief can, under certain circumstances send a single resuscitative or surgical team forward to provide limited forward resuscitation and surgical support.

4-107. In this configuration, the team is designed and equipped to receive, triage, provide emergency treatment, and prepare up to four incoming patients for DCR and/or DCS. The team can provide limited post-operative care no more than four patients for up to 24-hours using its organic medical equipment set. Figure 4-5 depicts a complete FRSD using approved AHS military symbols. The resuscitation team can assist with triage and resuscitation at the Role 2. Figure 4-6 on page 114 depicts a split FRSD using approved operational medicine military symbols.

Note 1. As written in Section One of the FRSD's TOE, the terms, elements, teams, and sections are used interchangeably. To avoid confusion, this publication specifically points out the type of element discussed, for example, detachment, section, or team.

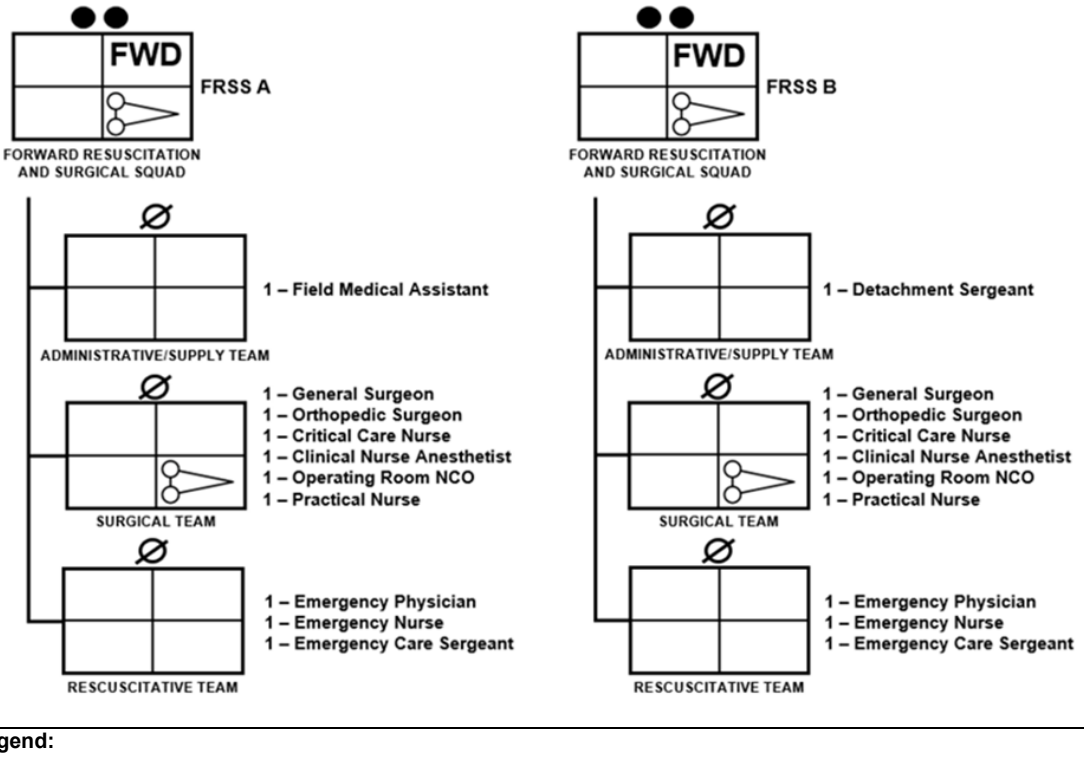
Note 2. The FRSD MES should be functional packed to support sending a single six-person surgical team.



Legend:

DCR	damage control resuscitation	FWD	forward
DCS	damage control surgery	NCO	noncommissioned officer

Figure 4-5. Task organization of a complete forward resuscitative and surgical detachment



Legend:

FRSS	forward resuscitation and surgical squad	NCO	noncommissioned officer
FWD	forward		

Figure 4-6. Task organization of a split forward resuscitative and surgical detachment

ADMINISTRATION/SUPPLY SECTION

4-108. The administration and supply section provides unit-level administration, supplies management, maintenance, and operational planning support. Specific duties and responsibilities of the field medical assistant and detachment sergeant include management of the routine operating issues of the detachment and keeping the FRSD chief apprised of—

- Ongoing tactical operations.
- Requirements to displace.
- Movement considerations.
- Reestablishment of the surgical facility.
- Status of organization and medical supply or resupply.
- Plan for FRSD current and future operations.
- Status of individual and unit training.
- Status of communications connectivity.

4-109. As the detachment is dependent upon its supporting Role 2 MTF for a significant share of its administrative and logistical requirements, continuous coordination between the FRSD and the Role 2 medical company is required to ensure that shortfalls in support do not adversely impact patient care.

4-110. When operationally employed, the administration/supply section enables the detachment to concentrate on its core mission of providing DCR and DCS. When the FRSD is required to split, the field medical assistant will fall in on one of the forward surgical sections and the detachment sergeant on the other, so that each section has an administration and supply point of contact.

RESUSCITATIVE SECTION

4-111. The resuscitative section manages trauma patients through trauma resuscitation (blood products, parenteral fluids, advanced airway management, intravenous, intraosseous infusion, and central line placement). The resuscitative section can also provide limited ancillary services with point of care laboratory assay measurement and imaging modalities to assist with initial assessment and ongoing patient management and treatment. Personnel assigned to the forward resuscitative section provide—

- Trauma resuscitation (for example, blood and blood products, parenteral fluids).
- Point of care laboratory assay measurements.
- Imaging modalities (ultrasound).
- Assistance with initial assessment and ongoing patient management and treatment.
- Infection control.
- Pre-and postoperative care that includes:
  - Blood and blood product management.
  - Advanced airway management.
  - Intravenous, intraosseous, and central line placement.
- Continuation of trauma resuscitation using—
  - Blood and blood products.
  - Parenteral fluids and medications.
- Critical care services that include:
  - Mechanical ventilation.
  - Advanced airway management.
- Postoperative recovery care, which includes:
  - Pain management.
  - Pulmonary therapy.
  - Fluid resuscitation.

4-112. The following paragraphs provide an overview of the primary functions of personnel assigned to the resuscitative section. This includes both officers and enlisted personnel.

Emergency Physician

4-113. The resuscitative section includes two emergency physicians (62A). Their immediate decisions and actions are intended to stabilize the patient until surgical intervention is available. Specific duties and responsibilities may include:

- Providing—
  - Initial examinations.
  - Evaluations.
  - Diagnostic measures.
  - Treatment.
  - Stabilization.
  - Resuscitation.
- Providing clinical management of—
  - Trauma.
  - Altered levels of consciousness.
  - Acute sicknesses.
  - Toxic exposures.
- Obtaining intravascular access.
- Draining blood or air from the chest cavity.
- Reducing and splinting fractures.
- Performing limited ultrasound examinations for diagnostic purposes.

Emergency Nurse

4-114. The resuscitation section includes two emergency nurses (66T). Specific duties and responsibilities may include:

- Caring for patients during the initial phase of hospitalization and treatment.
- Providing trauma and emergency care to all categories of patients.
- Practicing in settings in which patients require extremely complex and rapid assessment, high-intensity therapies and interventions, and continuous nursing vigilance.
- Conducting thorough assessments and performing life-saving interventions as required.
- Performing point-of-care testing.
- Operating life-support equipment
- Providing ongoing sedation and analgesia of patients, as required.
- Performing operator-level maintenance of medical equipment in accordance with appropriate technical manuals and manufacturer's instructions.

Emergency Care Sergeant

4-115. The resuscitation section includes two emergency care sergeants (68W). The emergency care sergeant provides emergency medical treatment and assists with triage, preoperative, and postoperative care of FRSD patients. Specific duties and responsibilities may include:

- Administering emergency and routing medical treatment.
- Assisting with outpatient care and treatment.
- Performing point-of-care testing.
- Performing operator-level maintenance on medical equipment in accordance with appropriate technical manuals and manufacturer's instructions.

SURGICAL SECTION

4-116. The surgical section provides surgical services including anesthesia services, infection control, and DCS as well as postoperative care that includes continuing trauma resuscitation (blood products, parenteral fluids, advanced airway management, intravenous, intraosseous infusion, and central line placement), and critical care services management of mechanical ventilation, advanced wound management, and postoperative recovery care (pain management, pulmonary therapy, and fluid resuscitation). To enable the most efficient surgical throughput, each surgical section is designed to be supported by a resuscitation section. A surgical section can be employed separately from the FRSD for very short duration operation (24-hours) as a FRSS, normally conducted in support of special operations forces missions. The surgical section can provide limited ancillary services to include point of care laboratory assay measurement and imaging modalities to assist with ongoing assessment and to guide further treatments and interventions.

4-117. Personnel assigned to the forward surgical section provide—

- Anesthesia services.
- Damage control surgery.
- Infection control.
- Postoperative care that includes:
- Advanced airway management.
- Intravenous and intraosseous infusions and central line placement.
- Continuing trauma resuscitation using—
  - Blood and blood product management.
  - Parenteral fluids and medications.
  - Advanced airway management.
  - Intravenous, intraosseous, and central line placement.
- Critical care services that include:
  - Mechanical ventilation.
  - Advanced airway management.
  - Postoperative recovery care, which includes:
  - Pain management.
  - Pulmonary therapy.
  - Fluid resuscitation.

4-118. The following paragraphs provide an overview of the primary functions of personnel assigned to the surgical section. This includes both officers and enlisted personnel.

General Surgeon

4-119. The surgical section includes two general surgeons (61J), with the senior general surgeon normally assuming the FRSD chief responsibilities. Specific duties and responsibilities may include:

- Examining, diagnosing, treating, or prescribing courses of treatment.
- Performing surgery for patients with injuries or disorders that require surgical intervention.

Orthopedic Surgeon

4-120. The surgical section includes two orthopedic surgeons (61M). Specific duties and responsibilities may include:

- Examining, diagnosing, treating, or prescribing courses of treatment.
- Performing surgery for patients having disorders, malformations, diseases, and injuries of the musculoskeletal system.

Critical Care Nurse

4-121. The surgical section includes two critical care nurses (66S). Specific duties and responsibilities may include:

- Provide intensive nursing care to all categories of operational patients.
- Conduct thorough assessments and taking immediate lifesaving action as required.
- Performing—
  - Point-of-care testing.
  - Operator-level maintenance of medical equipment in accordance with appropriate technical manuals and manufacturer's instructions.

Nurse Anesthetist

4-122. The surgical section includes two nurse anesthetists (66F). Specific duties and responsibilities include administering general or regional anesthesia for:

- Surgical procedures.
- Diagnostic procedures.
- Therapeutic procedures.
- Respiratory care.
- Cardiopulmonary resuscitation.
- Pain management.
- Fluid therapy.

Operating Room Noncommissioned Officer

4-123. The surgical section includes one OR NCO and one OR specialist (68D). The operating room specialist assists the nursing staff in preparing the patient and the OR environment for surgery and for assisting the surgical staff during procedures. They also operate the CMS and are responsible for preparing and maintaining sterile medical supplies and special equipment for the FRSD. The operating room specialist also assists in the management of FRSD's OR tables. Specific duties and responsibilities may include:

- Assisting the nursing staff in preparing patients and the ORs for surgery.
- Supervising maintenance programs in the OR and the CMS.
- Monitoring the quality of sterilization techniques to ensure adherence to established standards.
- Establishing stock levels for requisitioning supplies and equipment and supervise their storage and issue.
- Preparing and maintaining various reports and files.
- Supervising and advising subordinate personnel.
- Creating and maintaining sterile fields.
- Draping patients.
- Preparing, manipulating, and delivering surgical instruments and equipment.

- Accounting for all instruments, needles, sponges, and medications placed within the sterile field.
- Cleaning and sterilizing surgical instruments.

Practical Nurse Noncommissioned Officer and Practical Nursing Specialist

4-124. The surgical section includes one practical nurse NCO and one practical nursing specialist (68C). The practical nursing specialist supervises or performs preventive, therapeutic, and emergency nursing care procedures under supervision of a physician, nurse, or NCO. Specific duties and responsibilities may include:

- Providing preventive, therapeutic, and emergency nursing care procedures under the supervision of a physician or nurse.
- Administering point-of-care testing.
- Performing operator-level maintenance on medical equipment in accordance with appropriate technical manuals and manufacturer's instructions.

EMPLOYMENT

4-125. Forward resuscitative and surgical detachments are normally employed in BCTs based on one per maneuver brigade. They are normally attached to an HHD, hospital center for general support. When operationally employed, FRSDs are attached to Role 2 medical companies. The FRSD may also be a part of a medical task force in support of special operation forces missions. An FRSD deployed forward from the Role 3 hospital is dependent on the Role 2 medical company they are attached to for X-ray, medical laboratory, patient hold, Class VIIIA resupply, Class VIIIB blood support (to include additional blood storage), and medical device maintenance.

4-126. On arrival in the AO, the FRSD establishes contact with the supporting unit to coordinate its support requirements. They also obtain situational updates and arrange for x-ray, medical laboratory, medical records administration, PM items, and operational requirements support. See Appendix B of this publication for additional planning factors that may impact employment of the FRSD and forward surgical operations.

4-127. In preparation for deployment, the FRSD should take every opportunity to train. For detailed information on specialized augmentation training considerations, see Appendix F of this publication.

EMPLOYING THE DETACHMENT

4-128. When deployed, the FRSD is generally attached to an HHD, hospital center with duty at the field hospital (32-bed) when not operationally employed at the Role 2 brigade support medical company. When supporting a maneuver brigade, the FRSD is most effective when attached its Role 2 medical company. The Role 2 medical company provides support and medical functions that the FRSD is not designed or equipped to provide for itself.

4-129. If necessary, the detachment can be split into two FRSSs composed of 10 Soldiers each. Each FRSS can support operations in two geographically dispersed locations. This may be a single brigade operating in two different areas or two separate battalions in contact. Splitting the FRSD should be no more than 72 hours.

4-130. Under certain circumstances, The FRSD can forward deploy a six Soldier surgical team for very short period (no more than 24-hours). An example would be to complete up to four urgent surgical cases in a 24-hour period. The question should be, is this an appropriate use of this surgical capability.

4-131. Modularly, and in line with the flexibility AHS principle, the FRSD may deploy a three-person resuscitative team (for example, to provide triage and resuscitation at the Role 2 or in support of a battalion as a main effort to provide additional triage and emergency care to a Role 1 battalion aid station). This tactic, technique, and procedure should be thoroughly planned as there is only one MES, FRSD and this team would require specific Class VIII to accomplish this. The FRSD provides the greatest capacity of forward resuscitation and surgical interventions when it is complete. Medical planners and FRSD leaders should note that splitting FRSD capabilities places an additional burden on sustainment and lowers resuscitative and surgical capacity. Consideration for the overall forward surgical mission should be considered as well if the removal of the resuscitative team would take away from the surgical capability and capacity based off the casualty estimate. If it is decided to forward deploy a resuscitative team, like forward deploying a surgical team, the team should only operate for no more than a 24-hour period before returning to the FRSD.

4-132. By design, the FRSD should be forward deployed with a Role 2 medical company. When an FRSD is not attached and forward deployed to a Role 2 medical company may serve in two main support roles:

- Stay with the Role 3 hospital with its personnel augmenting the surgical staff with its vehicles and equipment remaining packed and ready to forward deploy with a Role 2 medical company.
- Stay with the Role 3 hospital and serve as the surgical capability of the Role 3 hospital as its moves forward to remain in proximity of the supported maneuver force.

PLANNING

4-133. Requests for FRSD support and the tasking authority that directs the support resides in the operations staff channel. For example, if a BCT surgeon determines surgical support is required, the BCTs S-3 requests that support from the division G-3, who may then request it from the corps G-3, who then tasks the MEDBDE for an FRSD to be temporarily attached to the BCT. The surgeon's staff sections should be simultaneously coordinating at these echelons to synchronize the FRSD's support to the BCT.

4-134. Prior to (when possible) or upon arrival in the AO, the FRSD chief either directly or through the detachment's administration/supply section contacts the supporting or supported unit to communicate the detachments support requirements. The detachment's administration/supply section should also obtain situational updates and coordinate for X-ray, medical laboratory, medical records, patient administration support, and replacement of PM items as well as force protection requirements.

4-135. Operational planning for employment of the FRSD is the responsibility of the MEDBDE with input from the FRSD's chief, field medical assistant, and detachment sergeant. Operational and support estimates developed by the medical staff, along with input from the brigade medical staff is used in the planning process to develop the AHS support estimates for medical support at EAB and forward deployed forces at brigade and below. All factors should be considered during the initial development of the operations plan. The plan is updated, as required, to meet HSS operational requirements. The brigade surgeon's cell is responsible for planning the employment of the airborne or air assault FRSD.

4-136. Forward resuscitative and surgical detachment operations involve all the factors that are considered in the initial developmental stages of the medical plan. The medical plan is updated to meet METT-TC (I), and operational requirements. Though not all inclusive, table 4-3 depicts several FRSD planning considerations.

Table 4-3. Forward resuscitative and surgical planning considerations

• Detachment requires a minimum of two hours to set up and become functional.
• Two operating tables per detachment.
• Average surgical time per patient is 135 minutes (not including post-operative recovery).
• Rest cycle planning consideration for each operating room table is six hours for every 24-hour cycle.
• Maximum caseload per 24-hours equals 10 cases (medical equipment set can only support a combination of 30 resuscitation and surgical cases without resupply).
• Should not begin surgery unless sufficient time to safely begin and complete necessary procedures and permit adequate post-operative recovery time for patient to survive evacuation (approximately six hours).
• Post-operative care for up to six hours with eight patients.
• The detachment should be relieved or rested and resupplied after 72 hours.

Running Estimates

4-137. To ensure the success of the detachment, the FRSD chief should maintain accurate running estimates, including those items of equipment, supply, and personnel which enable the detachment to successfully support Soldiers in the field. The FRSD chief should identify minimum required stockage levels of each item and take steps to ensure timely resupply before low stockages negatively affect FRSD operations. The FRSD chief should also identify as critical information requirements those items which would require a decision if stockages become low. For example, if quantities of on-hand blood units drop below minimum stockage levels, a decision to execute an emergency resupply mission or divert casualties to another treatment facility

may become necessary. Examples of the items to be included in the FRSD running estimate may include, but are not limited to:

- Blood (on-hand and required).
- Medications.
- Surgical supplies.
- Central materiel services support.
- Medical evacuation support (availability and times).
- Medical device maintenance.
- Vehicle maintenance.
- Fuel.
- Rations.
- Water.

Basis of Allocation

4-138. The BOA for the FRSD is one per committed BCT and one per BCT assigned to conducting stability and reconstruction operations.

4-139. For the airborne FRSD the BOA is one per committed infantry BCT (airborne), one per special forces group (airborne), maximum of three, one per two committed airborne BCT in lesser contingency, and one per airborne BCT in joint forced entry package.

Mobility

4-140. Detachments with well-trained and rehearsed personnel can transport 100 percent of their personnel and equipment in a single lift using organic vehicle assets after the equipment has been consolidated, cross-leveled, and loaded onto vehicles using proven load plans.

DISPLACEMENT AND REDEPLOYMENT

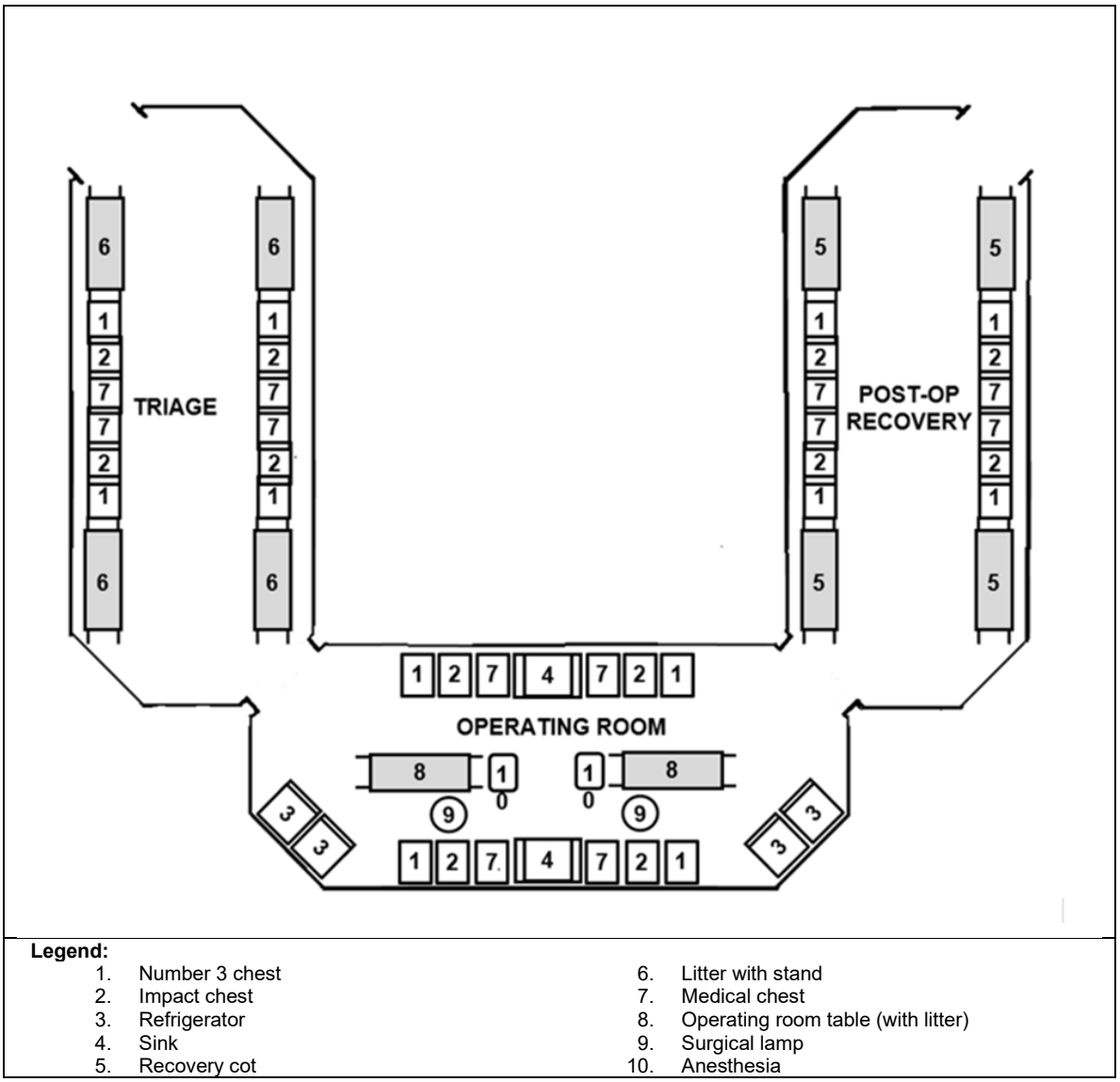
4-141. When deploying the detachment, the MEDBDE commander issues orders, either verbally or in writing, to the FRSD chief. When attached to a Role 2 BSMC movement orders are issued by the BCT commander. Frequently, the time to respond to orders is short; therefore, the FRSD should be constantly prepared to move. For this reason, a flexible entry and exit strategy during movement into and withdrawal from the AO is essential. After receiving the commander's order, the FRSD chief, field medical assistant, and detachment sergeant, conduct a mission analysis, incorporating changes based on METT-TC (I) coupled with operational requirements.

Note. When a FRSD is attached to a Role 2 BSMC, it can be subjected to frequent movement based upon the BCT's operations.

4-142. The FRSD is generally attached for a period of up to 72 hours, after which it redeploys to its unit of assignment for rest and resupply. In situations where the detachment is required to remain on station for longer than 72 hours, the detachment should be resupplied through established support channels. In some cases, it may be augmented by another FRSD to manage patient loads during a given situation.

ESTABLISHING THE SURGICAL FACILITY

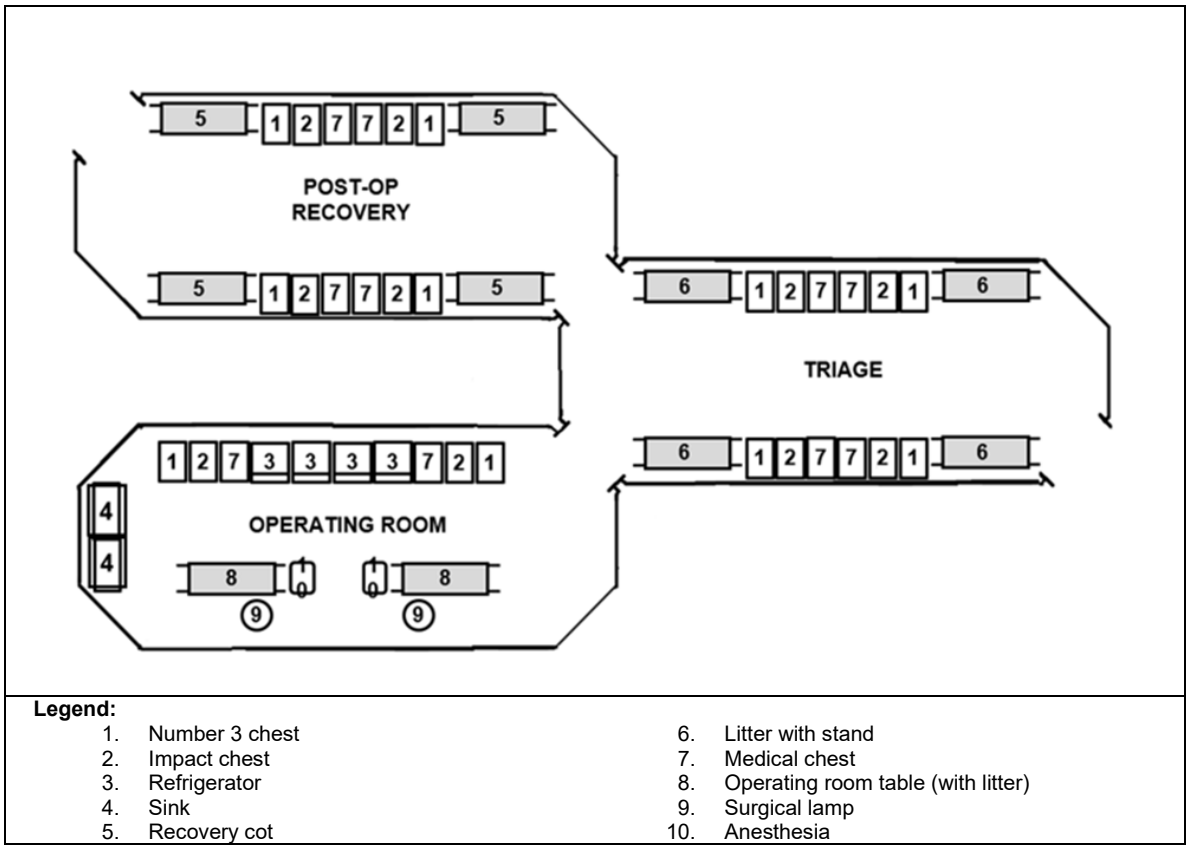
4-143. The FRSD may deploy using several different shelter systems (tentage). The type of tentage used is based on the detachment's modified TOE or common table of allowance. The configuration or layout of the FRSD is influenced by factors such as the type and location of the unit on which the FRSD falls in (Role 3 hospital or Role 2 medical company), terrain, anticipated patient load, and the frequency with which they may be required to displace as designed and equipped; the complete FRSD requires approximately 1,500 square feet of space to operate (when using 18- by 25-foot equivalent tents). For convenience and additional space, the chief of the FRSD may choose to set up using multiples of a given shelter system or, if possible, occupy a building of opportunity. Figure 4-7 on page 121, figure 4-8 on page 122, figure 4-9 on page 123, figure 4-10 on page 124, and figure 4-11 on page 125 show examples of how an FRSD may be configured.



Legend:

1. Number 3 chest
2. Impact chest
3. Refrigerator
4. Sink
5. Recovery cot
6. Litter with stand
7. Medical chest
8. Operating room table (with litter)
9. Surgical lamp
10. Anesthesia

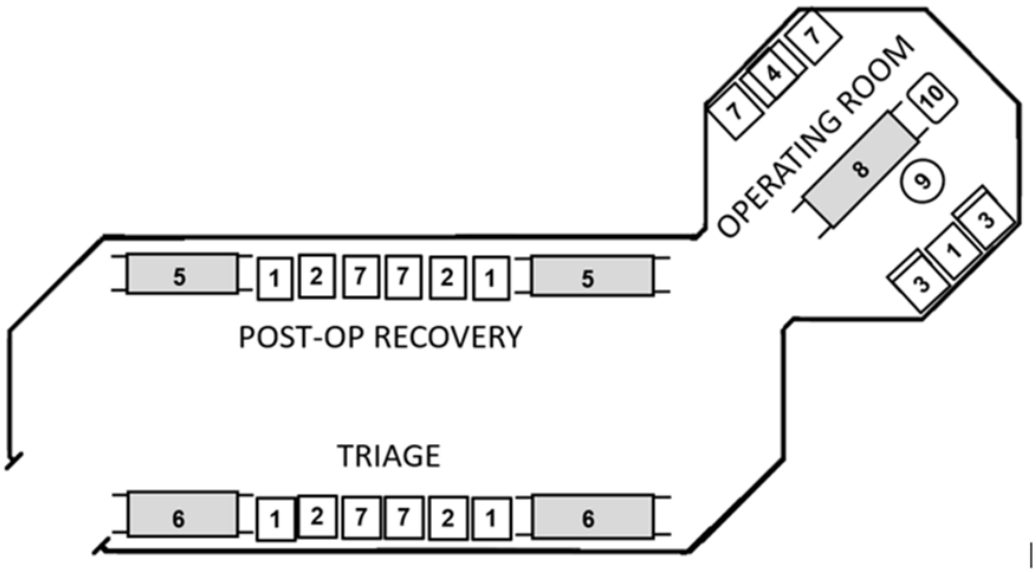
Figure 4-7. Sample layout of a forward resuscitative and surgical detachment in a "U" configuration



Legend:

1. Number 3 chest
2. Impact chest
3. Refrigerator
4. Sink
5. Recovery cot
6. Litter with stand
7. Medical chest
8. Operating room table (with litter)
9. Surgical lamp
10. Anesthesia

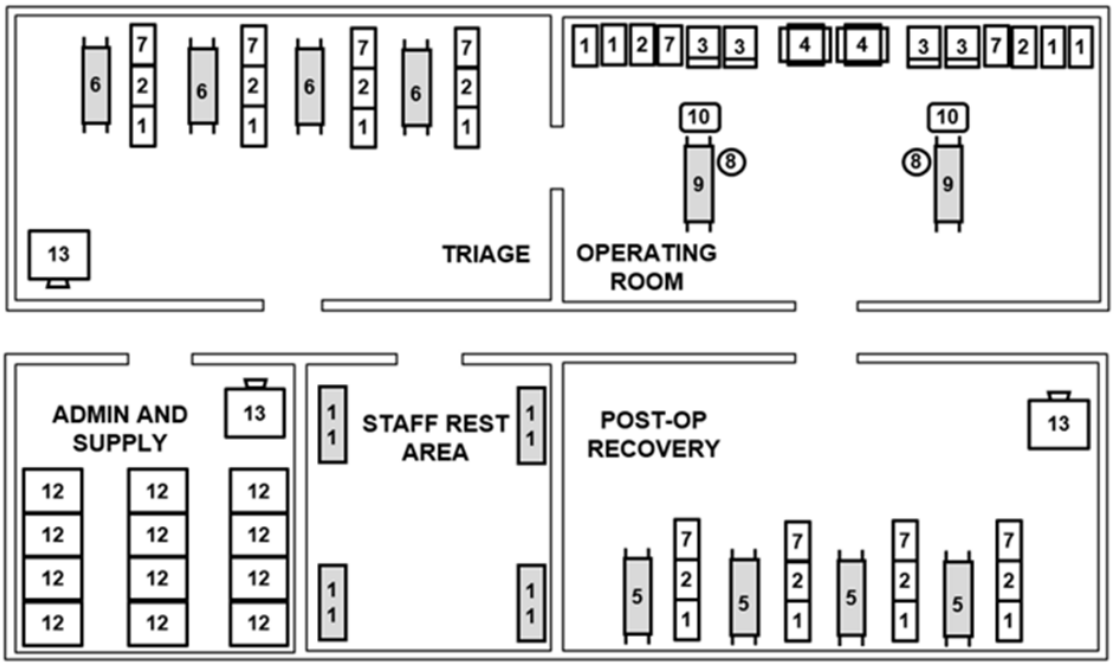
Figure 4-8. Sample layout of a forward resuscitative and surgical detachment in a "Y" configuration



Legend:

1. Number 3 chest
2. Impact chest
3. Refrigerator
4. Sink
5. Recovery cot
6. Litter with stand
7. Medical chest
8. Operating room table (with litter)
9. Surgical lamp
10. Anesthesia

Figure 4-9. Sample layout of a forward resuscitative and surgical detachment in a split configuration



Legend:

1. Number 3 chest
2. Impact chest
3. Refrigerator
4. Sink
5. Recovery cot
6. Litter with stand
7. Medical chest
8. Operating room table (with litter)
9. Surgical lamp
10. Anesthesia
11. Folding cot
12. Supplies and equipment
13. Field table with chair

Figure 4-10. Sample layout of a forward resuscitative and surgical detachment set up in a building of opportunity

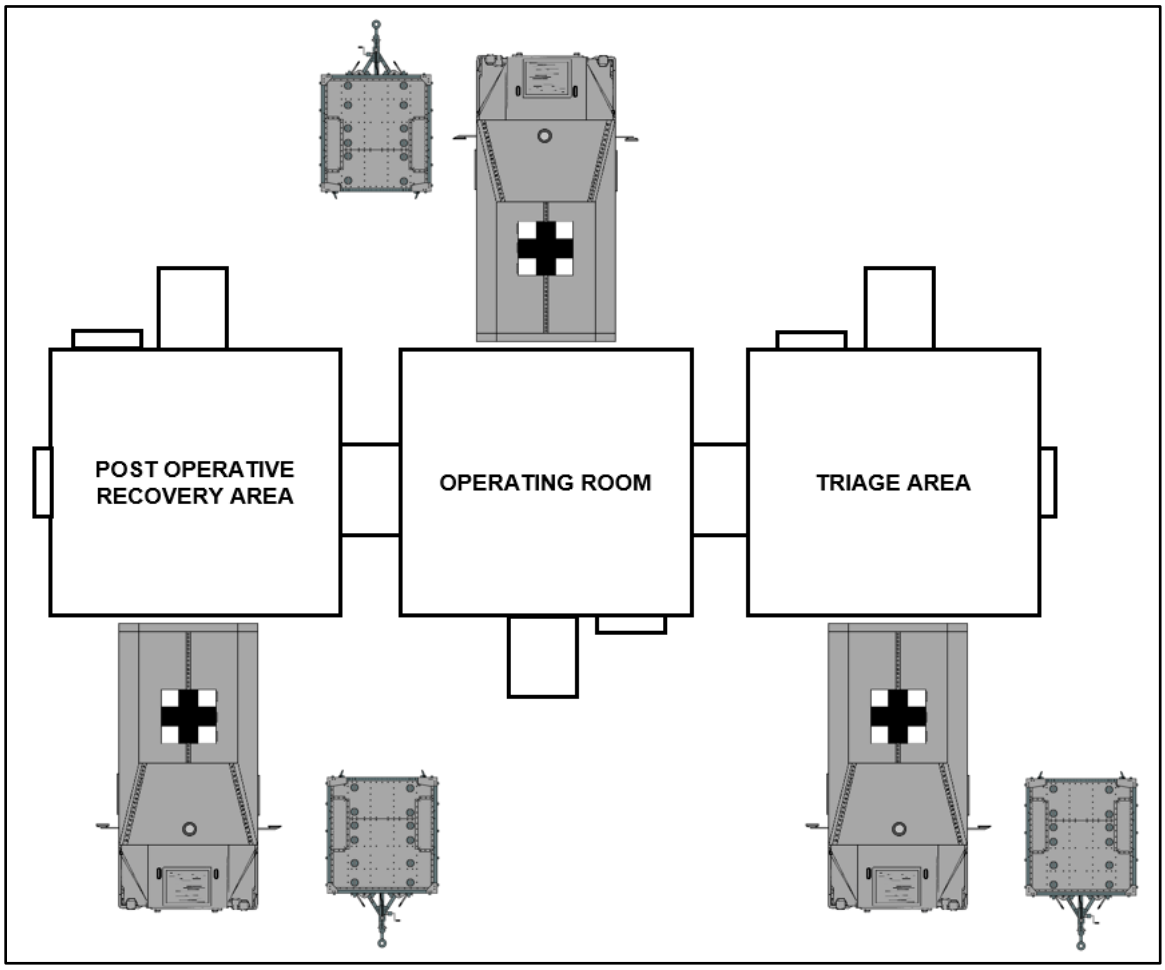


Figure 4-11. Sample layout of a forward resuscitative and surgical detachment using chemical and biological protective shelter systems

SECTION IV – HOSPITAL AUGMENTATION TEAM (HEAD AND NECK)

4-144. This section provides a discussion of the hospital augmentation team (head and neck) allocation, assignments and capabilities, dependencies, employment, and organization and functions.

MISSION

4-145. The mission of this team is to provide ear, nose, and throat surgery; neurosurgery; eye surgery, and maxillofacial surgical augmentation in support of the Role 3 hospitals and consultative services as required.

ASSIGNMENT AND DEPENDENCIES

4-146. See the field hospital (32-bed) section for descriptions of what an assignment and dependency mean. The head and neck team has many dependencies due to its task organization and mission.

4-147. The head and neck team, in coordination with MEDBDE, hospital center or field hospital (32-bed) leaders, should build on the list of dependencies from the Section I and add additional dependencies in the unit TACSOP as required and describe in detail the nature of each dependency and how these units will support the team.

ASSIGNMENT

4-148. The team is assigned to a MEDBDE and normally will be attached to a hospital.

DEPENDENCIES

4-149. This detachment is dependent upon—

- Appropriate elements for legal, religious, finance, human resources and administrative services, shower and laundry support, clothing exchange, patient decontamination, mortuary affairs, and EPW security during processing and evacuation.
- The hospital it is attached to provide sheltered ORs; commonly used equipment; pre- and postoperative nursing care for all patients; field feeding (to include patient food service); AHS support; water distribution; security; human resources and administrative services; transportation, unit maintenance for generator; power support for all equipment; patient administration; coordination of MEDEVAC; and all classes of supply.

CAPABILITIES AND FUNCTIONS

4-150. The unit capabilities and function depict what the head and neck team is capable of accomplishing. Functions are descriptions of what each subcomponent of the head and neck team is responsible for in support of the overall mission. Due to assigned missions, if there are additional capabilities or functions then the head and neck team should add them to their TACSOP along with prescriptive verbiage for each capability and function.

CAPABILITIES

4-151. This detachment provides—

- Initial and secondary ear, nose, and throat surgery and consultation services in support of Role 3 hospitals.
- Initial and secondary neurosurgery and consultation services in support of Role 3 hospitals.
- Initial and secondary eye surgery and consultation services in support of Role 3 hospitals.
- Initial and secondary maxillofacial surgical augmentation in support of Role 3 hospitals.
- Augmentation of the Role 3 hospital OR surgical and nursing services.
- Three days of supply for all organic elements upon deployment and during routine operations.
- Individual weapons for personal defense and protection of the patients under the detachment's care.

FUNCTIONS

4-152. The function of the hospital augmentation team (head and neck) is to provide preoperative assessment and perform neurosurgery; ear, nose, and throat surgery; ophthalmic surgery; and maxillofacial surgery for patients admitted to the hospital to which the unit is attached. The team will also provide the hospital with neurosurgical, ophthalmic, and otolaryngological consultation services and postoperative follow-up.

4-153. The equipment for the hospital augmentation team (head and neck) no longer includes the MMS (radiology, CT). This set is provided by the field hospital (32-bed) so the hospital augmentation team (head and neck) can perform CT scans prior to surgery and will decrease the requirement for exploratory surgery. The hospital augmentation team (head and neck) does not include an OR and work areas; it will perform surgery utilizing the OR and central materiel supply complex of the hospital to which it is attached. When attached to the hospital, it falls under the supervision of the chief, professional services.

4-154. The following paragraphs provide an overview of the primary functions of personnel assigned to the hospital augmentation team (head and neck). This includes both officers and enlisted personnel.

Ophthalmologist

4-155. The head and neck team includes two ophthalmologists (60S). The ophthalmologist examines, diagnoses, and treats or prescribes course of treatment for personnel suffering from diseases, injuries, or disorders of eyes and performs surgery when required. Specific duties and responsibilities of the ophthalmologist may include:

- Examining, diagnosing, and treating or prescribing courses of treatment.
- Performing surgery for patients with injuries or disorders that require surgical intervention.

Otolaryngologist

4-156. The head and neck team includes one otolaryngologist (60T). The otolaryngologist is dual hatted as the team leader responsible for the health and welfare of assigned personnel and the planning of head and neck teams operations. The otolaryngologist examines, diagnoses, and treats or prescribes courses of treatment for personnel suffering from diseases, injuries, or disorders of ear, nose, and throat, and performs surgery when required. Specific duties and responsibilities of otolaryngologist may include:

- Examining, diagnosing, and treating or prescribing courses of treatment.
- Performing surgery for patients having disorders, malformations, diseases, and injuries of the ears, nose and throat.

Neurosurgeon

4-157. The head and neck team includes two neurosurgeons (61Z). The neurosurgeon examines, diagnoses, and performs surgery as required in cases of patients suffering from disease, injury, or disorder of nervous system. Specific duties and responsibilities of the neurosurgeon may include:

- Perform surgical procedures.
- Perform diagnostic procedures.

Clinical Nurse, Operating Room

4-158. The head and neck team includes two perioperative nurses (66E). The perioperative nurses perform specialized professional nursing duties in any phase of the operative process for patients undergoing all types of surgical procedures. They provide safe supplies and equipment for perioperative services. Specific duties and responsibilities of the perioperative nurse may include:

- Prepare patient and OR for surgery.
- Assist with surgical procedures.
- Assist with therapeutic procedures.
- Assist with respiratory care.
- Assist with cardiopulmonary resuscitation.
- Assist with fluid therapy.
- Supervising enlisted operating room personnel.

Nurse Anesthetist

4-159. The head and neck team include two nurse anesthetists (66F). The nurse anesthetists perform nursing duties in the care of patients requiring general or regional anesthesia for:

- Surgical procedures.
- Diagnostic procedures.
- Therapeutic procedures.
- Respiratory care.
- Cardiopulmonary resuscitation.
- Pain management.
- Fluid therapy.

Operating Room Non-Commissioned Officer, Sergeant, and Specialist

4-160. The head and neck team includes two 68D3Os, one 68D2O, and two 68D1O operating room specialists. The operating room specialists assist the team's nursing staff in preparing the patient and the OR environment for surgery and for assisting the surgical staff during procedures. They also operate the CMS and are responsible for preparing and maintaining sterile medical supplies and special equipment for the head and neck team. The operating room specialists also assist in the management of team's OR tables. Specific duties and responsibilities of enlisted OR personnel include:

- Assisting the nursing staff in preparing patients and the ORs for surgery.
- Supervising maintenance programs in the OR and the CMS.
- Monitoring the quality of sterilization techniques to ensure adherence to established standards.

- Establishing stock levels for requisitioning supplies and equipment and supervise their storage and issue.
- Preparing and maintaining various reports and files.
- Supervising and advising subordinate personnel.
- Creating and maintaining sterile fields.
- Draping patients.
- Preparing, manipulating, and delivering surgical instruments and equipment.
- Accounting for all instruments, needles, sponges, and medications placed within the sterile field.
- Cleaning and sterilizing surgical instruments.

Biomedical Equipment Sergeant

4-161. The head and neck team includes one biomedical equipment specialist (68A). The biomedical equipment specialist performs maintenance services and repairs on all medical devices, medical systems, medically related devices and medically related systems Specific duties and responsibilities of biomedical equipment sergeant may include:

- Performing preventive maintenance checks and services (for example, test, operates, lubricates, adjusts, tightens, and cleans), calibration, verification, certification, and electrical safety tests on medical and medically related devices.
- Troubleshooting to isolate malfunctioning or defective parts and/or boards on medical and medically related devices.
- Affecting repairs by replacing malfunctioning or defective parts and/or boards on medical and medically related devices.
- Maintaining networked medical devices.
- Performing quality assurance and quality control and acceptance inspections on medical and medically related devices.
- Computing power requirements for medical devices.
- Contributing to the development of the medical maintenance SOP and commanders' maintenance directive.

Eye Sergeant

4-162. The head and neck team includes one eye specialist (68Y). The eye specialist conducts routine diagnostic tests and assists in the care and treatment of ophthalmology or optometry patients. Specific duties and responsibilities of eye sergeant may include:

- Assisting the nursing staff in preparing patients and the ORs for surgery.
- Conducting routine diagnostic tests and assists in the care and treatment of ophthalmology or optometry patients under the supervision of an ophthalmologist, otolaryngologist, or nurse.

Radiology Specialist

4-163. The head and neck team includes two radiology specialists (68P). The radiology specialists operate the team's CT equipment and supervises CT activities. Specific duties and responsibilities of radiology specialist may include:

- Assisting the nursing staff in preparing patients and the ORs for surgery.
- Providing patient care within the radiology area.
- Preparing, assembling, and adjusting instruments, materials, and equipment.
- Inspecting and performing operator maintenance on CT equipment.
- Applying radiation, electrical, and mechanical protective measures.
- Performing CT examinations of the head and neck area.
- Developing CT images using digital and manual processing.
- Reading and interpreting CT requests and physician's orders.
- Utilizing hospital information systems and performing routine patient administration.
- Maintaining patient locator file, CT files, and report files.

- Packing, unpacking, loading, and unloading CT equipment, assembling, and dissembling CT equipment and shelters.

EMPLOYMENT

4-164. The head and neck team is not designed as a standalone unit and will be employed with, and further attached or deployed within, the field hospital (32-bed) assigned AO. See Appendix B of this publication for additional planning factors that may impact head and neck team operations. Figure 4-12 depicts the task organization and composition of the hospital augmentation team (head and neck).

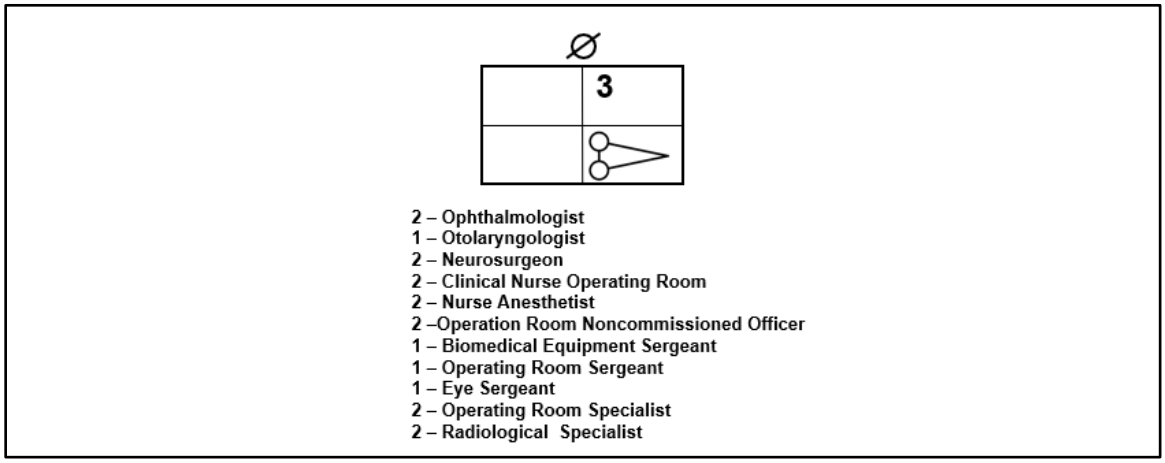


Figure 4-12. Task organization of the hospital augmentation team (head and neck)

4-165. In preparation for deployment, the head and neck team should take every opportunity to train. For detailed information on specialized augmentation training considerations, See Appendix F of this publication.

EMPLOYING THE TEAM

4-166. When deployed, the head and neck team provides additional surgical capabilities to the hospital center in the form ear, nose, and throat surgery; neurosurgery; and eye surgery augmentation. The head and neck team does not have organic OR tables but relies on the Role 3 hospital to which attached to dedicate an OR table or provide them on a need's basis. This should be outlined in both the head and neck team's a Role 3 hospital's TASCOPs.

PLANNING

4-167. Requests for head and neck team support and the tasking authority that directs the support resides in the operations staff channel. Though not all inclusive, table 4-4 on page 130 depicts several head and neck team planning considerations.

Table 4-4. Head and neck team planning considerations

- Prior to arrival of the head and neck team, the supported Role 3 hospital should have planned its configuration, staking, water, and power requirements to include the head and neck team and ensure it can be setup and begin head and neck surgical operations with minimal interruption of Role 3 capabilities.
- Team requires a minimum of four (4) to six (6) hours to set up and become functional.
- Detachment has no organic transportation, and plans to move the head and neck team will require other medical units or sustainment transportation support to move:
  - 18 personnel.
  - One container with the head and neck team equipment that includes the following medical materiel sets:
    - Eye exam clinic.
    - Maxillofacial head and neck surgical augmentation.
    - Neurosurgery augmentation: deployable medical system.
    - Radiology computed tomography augmentation.
  - One shelter: tactical expandable one-side with computed tomography device.

Note. The head and neck team does not require a running estimate as it will always be a part of the Role 3 hospital OR/CSM Section.

Basis of Allocation

4-168. The BOA is one head and neck team per 650 conventional hospital patients in the theater.

Mobility

4-169. This unit has no organic mobility. This unit has 55,046 pounds (5,031 cubic feet) of TOE assets requiring transportation by external resources.

ESTABLISHING THE HEAD AND NECK TEAM

4-170. Establishing the head and neck team requires prior planning to ensure the team knows the Role 3 hospital configuration to ensure the team will be able to add its CT device to the Role 3 hospital layout and that there is a designated area to place its container. It is recommended that the power requirements of the head and neck team are provided to the Role 3 hospital in advance so that it may be added to the Role 3 hospital power plan.

4-171. The head and neck team does not have organic OR tables. It should work with the OR staff to ensure the team is added into the daily OR schedule as needed to perform its mission.

4-172. The head and neck team should provide the Role 3 hospital with personnel information so the Role 3 hospital can ensure sleeping areas are provided for the head and neck team and that the number of assigned personnel is added to the overall field feeding schedule for the staff.

Appendix A

Hospitalization Support Within the Army Strategic Contexts

Appendix A discusses potential hospitalization activities in support of the Army strategic contexts of competition below armed conflict, crisis, and armed conflict. While these activities may vary in different regions of the world, the figures provided, and the accompanying descriptions, are intended to be generic and not specific to a particular region or operating environment. Commanders and planners can use this information as a starting point in determining the activities for their specific requirements. Throughout Appendix A, see table A-1 for all acronyms used in figures A-1 through A-3.

Table A-1. List of acronyms for Figures A-1 through A-3

Acronym	*Definition*
1	Role 1 (BAS)
2	Role 2 (BSMC or MCAS)
3	Role 3 (field hospital or hospital center)
4	Role 4 (Continental United States-based hospitals and other safe havens)
AH	Navy hospital ship
AO	area of operations
APOD	aerial port of debarkation
ALP	ambulance loading point
BAS	battalion aid station
BCT	brigade combat team
BSMC	brigade support medical company
CCP	casualty collection point
CONUS	continental United States
DIV	division
FRSD	forward resuscitative surgical detachment
FSMP	forward support medical evacuation platoon
FWD	forward
HC	hospital center
HHD	headquarters and headquarters detachment
ICW	intermediate care ward
km	kilometer
MCAS	medical company (area support)
MDMC	medical detachment (minimal care)
MEDBDE	medical brigade (support)
METT-TC (I)	mission, enemy, terrain and weather, troops and support available, time available, civil considerations, and (informational considerations)
PCAD	medical detachment (prolonged care augmentation)
POI	point of injury
SPOD	sea port of debarkation
SPT	support
SRGN	surgeon

SECTION I – HOSPITALIZATION DURING COMPETITION

A-1. During competition, the Role 3 hospital has the difficult training tasks associated with remaining ready to deploy. Potentially, the two most difficult areas to remain proficient at are the clinical skills of the health care providers and maintaining the ability to provide medical C2, especially considering elements that may deploy as a part of a hospital are not organic to the senior mission commander. The hospitals conduct field training exercises, staff exercises, Role 3 support to combat training centers and require medical providers to attend these events. A large percentage of the medical providers work at defense health agency MTFs to remain proficiency in their individual skills. The challenge for the operational Role 3 hospital is to integrate the medical providers into hospital operations utilizing the assigned equipment, procedures, and clinical practice guidelines of the Role 3, which may be different than the installation MTF they are accustomed to working.

A-2. Other operations include supporting Soldier readiness activities, assessing prepositioned stocks, medical device maintenance, and planning/rehearsing elements of the hospital to provide limited Role 3 early entry support. Additionally, Role 3 hospitals can support ongoing engagements with host and partner nations to increase those nations' capacities and capabilities to provide medical care and participate in global health engagements. While conducting health engagements, the hospital staff is gaining a great deal of situational awareness of the medical capabilities and health threats within the operational area; both will be important if a large-scale deployment occurs to the area.

A-3. During competition, the Role 3 hospital is more than likely still at home station. Through the orders process, elements of the Role 3 may deploy during any strategic context. When deployed, the Role 3 hospital is assigned to the MEDBDE. The hospital center has many augmentation pieces to it. Based on the orders process and PAR factors, the HHD hospital center may have combinations of field hospitals (32-bed), hospital augmentation detachments (surgical 24-bed), hospital augmentation detachments (medical 32-bed), hospital augmentation detachments (intermediate care wards (60-bed), hospital augmentation teams (head and neck), medical detachments (minimal care 120-cot), or medial detachments, forward resuscitative and surgical. The BOA for the HHD hospital center is one per two field hospitals (32-bed) with the HHD deploying with the first field hospital (32-bed). Elements of the Role 3 provide hospitalization within the theater, corps, and division echelons. During transition operations, Role 3 hospital planners should assess and modify Role 3 contingency or operation plans in support of crisis and armed conflict operations. Figure A-1 on page 133 depicts a notional hospitalization operational framework during competition below armed conflict.

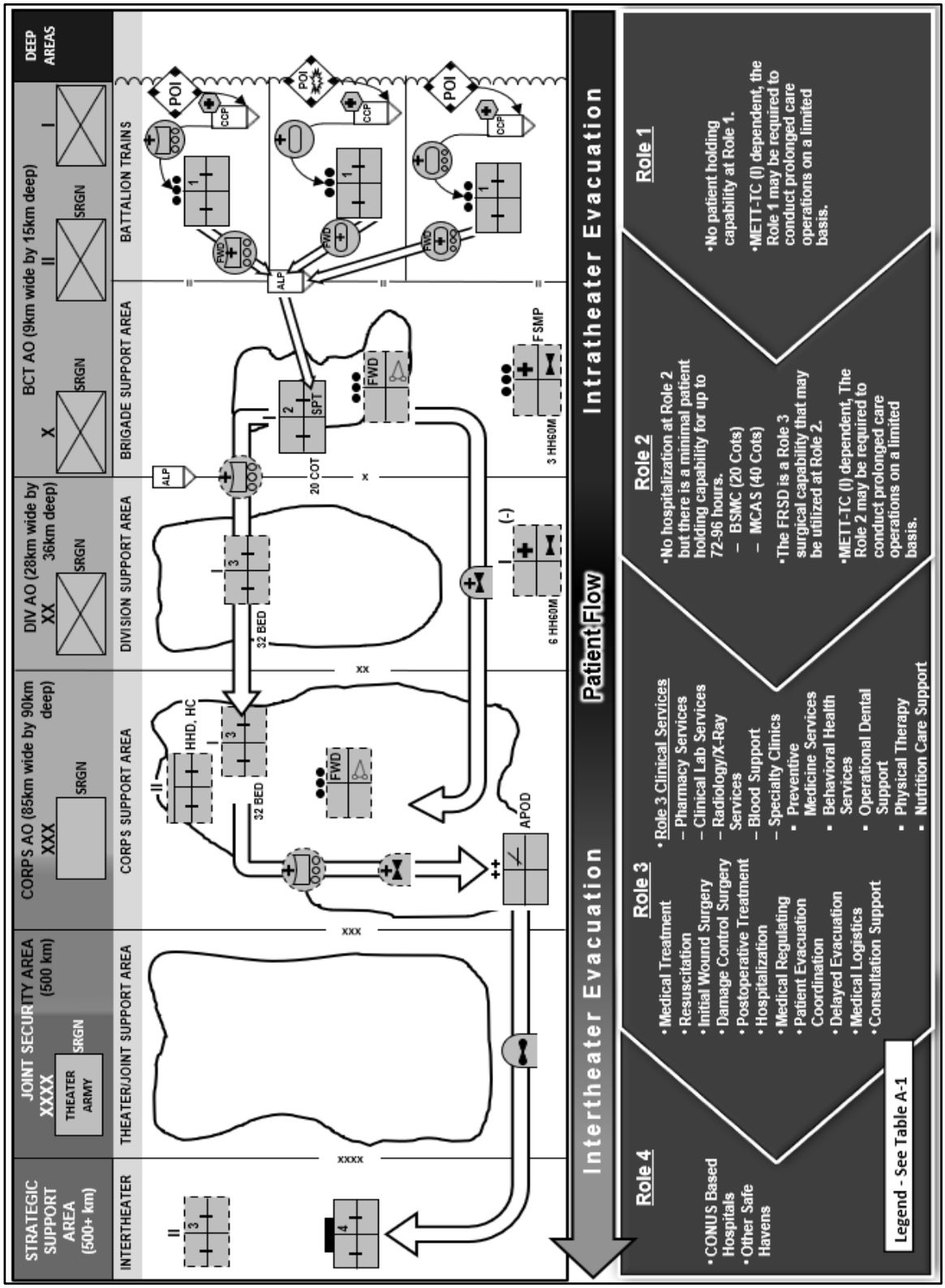


Figure A-1. Hospitalization during competition below armed conflict operations

SECTION II – HOSPITALIZATION DURING CRISIS

A-4. During crisis, Role 3 hospitals continue training all aspects of their required capabilities. Hospital staffs are engaged in mission analysis and coordination with the MEDBDE to ensure all aspects of deployment and employment are adequate. Especially key for the hospital is coordinating Army prepositioned stock draws, if applicable, support during reception, staging, onward movement, and integration activities (to include early entry Role 3), and ensuring the right capabilities are available if a transition to armed conflict occurs. As the OE grows and matures, the Role 3 will incrementally have a larger PAR. With more patients comes more medical waste; the Role 3 should establish waste management procedures with engineer or HN support to ensure the proper disposal of medical waste throughout the competition continuum.

A-5. Role 3 hospitals may still be supporting ongoing engagements with host and partner nations to increase those nations' capacities and capabilities to provide hospital care. While conducting health engagements, the hospital staff continues to gain a great deal of situational awareness of the medical capabilities and health threats within the operational area, both will be important if a large-scale deployment occurs in the area. Based on the OE, elements of the Role 3 deploy into the AO.

A-6. During crisis, elements of the Role 3 hospital may still be at home station while others are forward deployed. Through the orders process, elements of the Role 3 may deploy during any strategic context. Deployment of elements of a Role 3 weigh heavily on the BOA (which is very detailed for hospitalization and requires medical planners to be well versed in the computations). They are also based on planning estimates and PAR factors. When deployed, the Role 3 hospital is assigned to the MEDBDE and per its various BOAs provides Role 3 hospitalization within the theater, corps, and division echelons. During transition operations, Role 3 planners should assess and modify Role 3 contingency or OPLANs for returning to competition and forward to armed conflict. Figure A-2 on page 135 depicts a notional hospitalization operational framework during crisis.

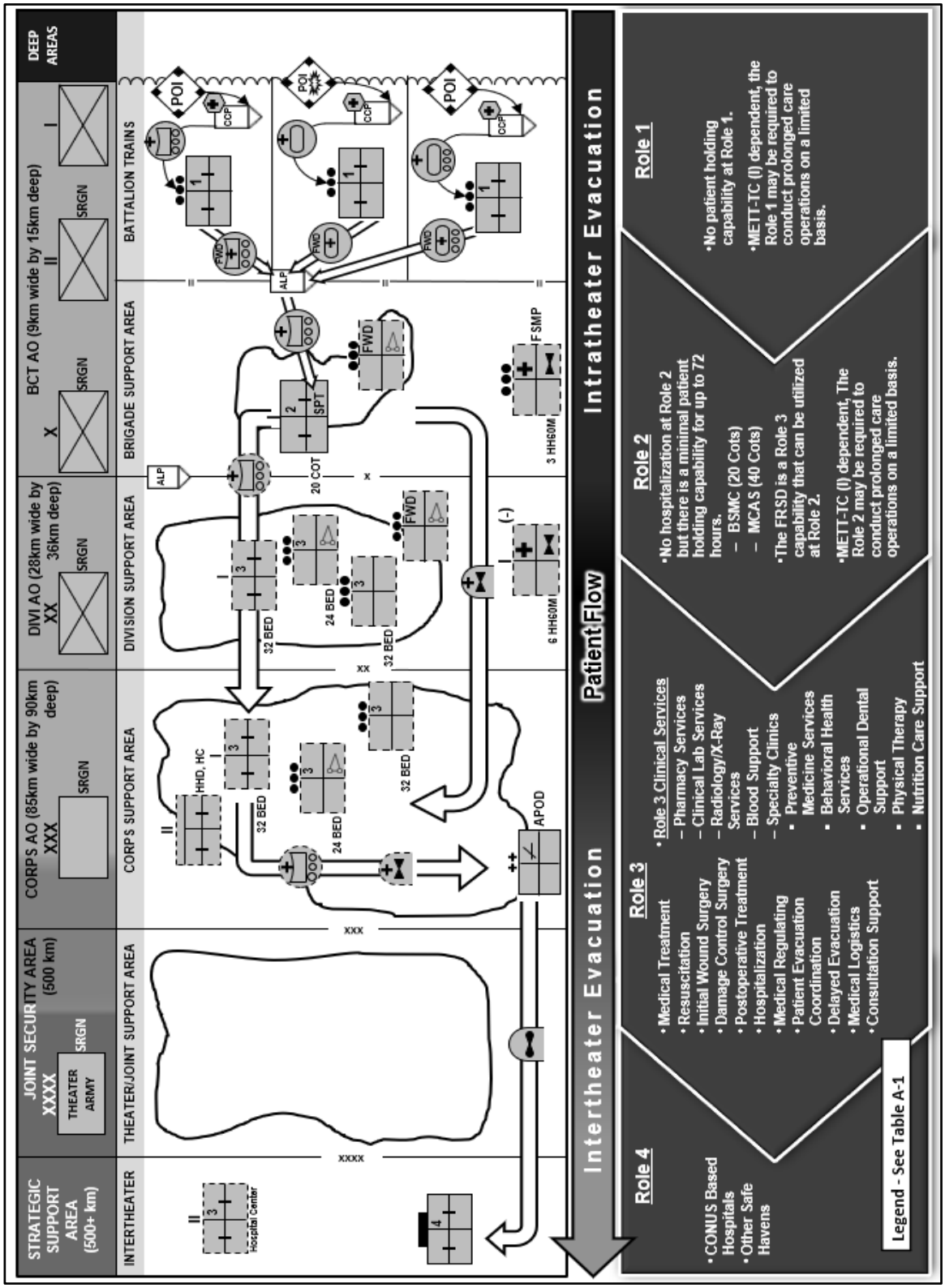


Figure A-2. Hospitalization during crisis operations

SECTION III – HOSPITALIZATION DURING ARMED CONFLICT

A-7. The Role 3 hospital provides hospitalization to corps and divisions per their BOA. The Role 3 should remain as flexible as possible. While the hospital center was designed to be modular, it is still a significant effort to relocate any part or all the hospital. Commanders and staffs should plan for and maintain situational awareness of possible requirements to relocate Role 3 capabilities. This may include task organizing limited amounts of Role 3 capabilities (that is, DCR, DCS, and ICU) and employing it in direct support of a maneuver unit engaged in heavy combat operations. The Role 3 should be prepared to conduct walking blood banks to collect and utilize WB as the resuscitative fluid of choice. In addition, support may include providing hospitalization to detainees. This will require a significant amount of coordination with the MEDBDE and other enabling capabilities within the AO (such as military police and sustainment units).

A-8. While conducting offensive operations, a Role 3 hospital should be prepared to move forward to stay in proximity of supported forces. Due to the time it takes to de-complex a Role 3 and METT-TC (I) dependent, the Role 3 may only setup 208 of its 240 beds. This leaves one 32-bed field hospital packed up and on order is ready to move to a new location. Once setup and fully operational the 208-bed hospital can de-complex, pack up, and move to the new location and re-complex. At the new location, the 32-bed hospital that just arrived will remain packed up and ready to jump to a new location when directed. Medical commanders do assume risk with not setting up the full 240-bed Role 3. Commander's need to weigh their options when supporting the operational commander's intent while conducting operations in armed conflict.

A-9. The ability to evacuate patients during large-scale combat operations will likely be limited and may only occur during short periods when the OE is permissive enough Therefore, Role 3 hospitals need to clear beds regularly and be prepared to provide care for patients for prolonged periods of time, which might be longer than they are comfortable with or longer than the theater evacuation policy normally allows for. When conducting prolonged care operations at a Role 3, the hospital commander should be prepared to clear beds at a moment's notice during windows of opportunity. Class VIII stocks, bed management, medical regulating, and maximizing RTDs are just a few key considerations in a prolonged care situation. The Role 3 supports reconstitution by maximizing the RTD rate within the limits of the theater evacuation policy and patient status, as close to the supported unit as possible.

A-10. During armed conflict and METT-TC (I) dependent, Role 3 hospitals are deployed and located within the operational area based on the orders process, planning estimates, and PAR factors. When deployed the Role 3 hospital is assigned to the MEDBDE and per its various BOAs provides Role 3 hospitalization within the theater, corps, and division echelons. In addition to the various Role 3 augmentation detachments designed around the hospital center there are several other capabilities that can be employed at the Role 3. Through the orders process the Role 3 may have the following units attached:

A-11. While conducting consolidation of gains, it may include many kinds of ongoing mission support requirements. While some maneuver units may still be engaged in combat operations, others may have transitioned to stability tasks. The Role 3 hospital should maintain situational awareness to remain flexible and conform to the operational commander's requirements. This will require the hospital to continue to assess running estimates and be prepared to provide all aspects of Role 3 care while reducing capacities in support of forward movement in support of armed conflict operations, redeployment operations and downsizing the footprint in theater (such as reducing the number of ICU and intermediate care ward [ICW] beds). Additionally, many of the UAP engagement activities that occurred in competition and crisis will require support in consolidation of gains. Key to the successful consolidation of gains will be for the HN to restore essential services, which includes a hospital system that is self-sufficient.

A-12. During transition operations, coordination between the outgoing and incoming commands is vital to ensure a smooth hand off and continuity of operations. Coordination should be made between the outgoing and incoming commands to determine if medical assets (personnel, equipment, and supplies) are required to be left behind, including planning for disposal of equipment and supplies that cannot be redeployed. Role 3 planners should assess and modify Role 3 contingency or OPLANs in support of operations for returning to state of crisis or competition. Figure A-3 on page 137 depicts hospitalization in armed conflict.

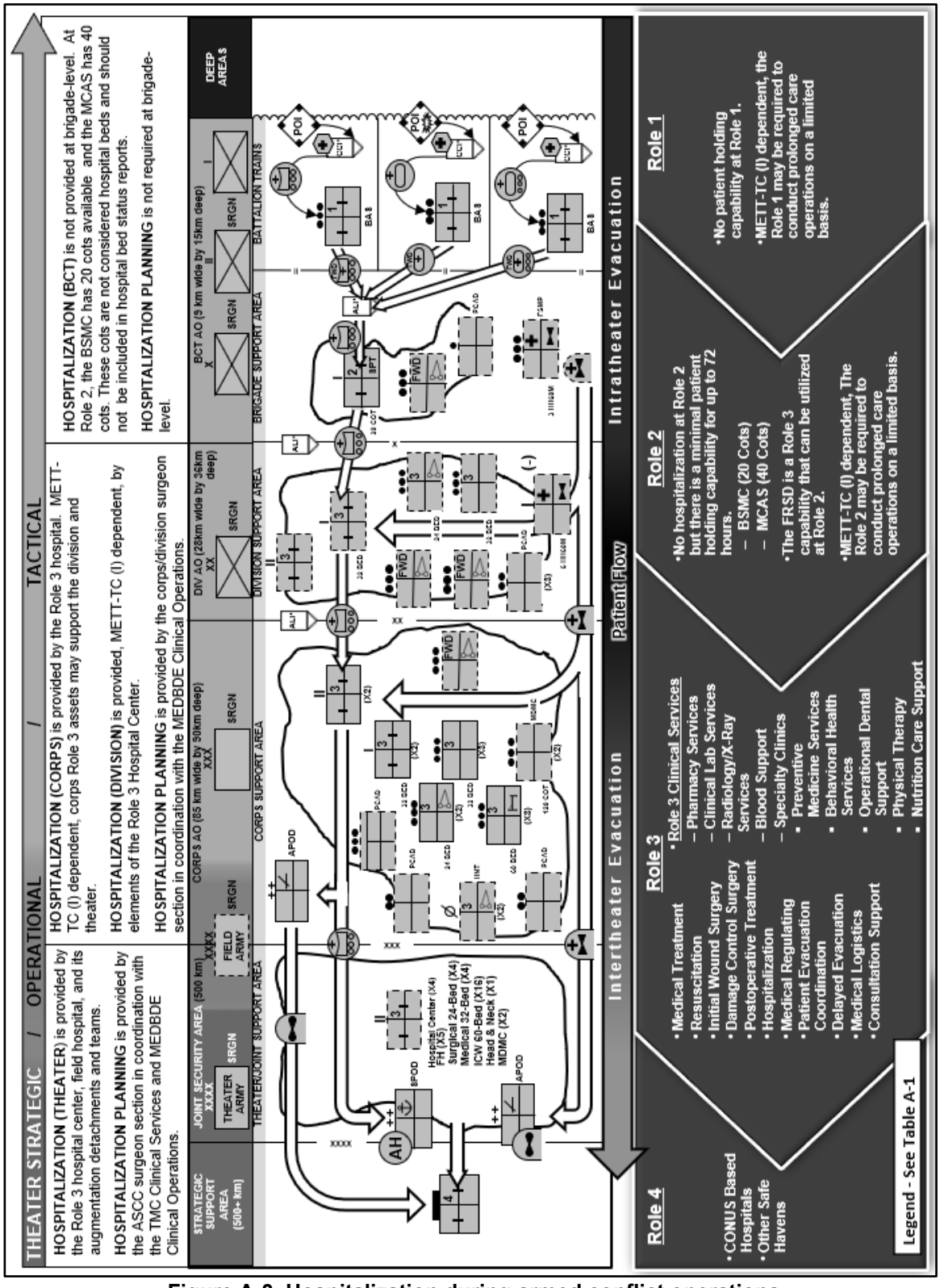


Figure A-3. Hospitalization during armed conflict operations

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Appendix B

Hospitalization Planning Factors

Appendix B provides hospitalization planning factors and data to compute surgical hours, hospital water, fuel, sustainment, blood, oxygen consumption, patient and personnel feeding, and waste disposal. The data and planning factors should be reviewed and updated to reflect any special considerations based on the OE and mission assigned to the hospital.

SECTION I – GENERAL HOSPITALIZATION PLANNING CONSIDERATIONS

B-1. This section discusses health threat assessments and hospital planning. It also discusses hospitalization's role in eligibility of care, hospitalization requirements, and timelines.

MEDICAL INTELLIGENCE

B-2. Hospitalization utilizes medical intelligence. Medical intelligence results from collection, evaluation, analysis, and interpretation of foreign medical, bioscientific, and environmental information that is of interest to strategic planning and to military medical planning. *Medical intelligence* is the 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. See also intelligence. (JP 2-0). For more information on medical intelligence, refer to FM 4-02 and ATP 4-02.55.

B-3. Medical intelligence is provided to the hospital leaders by intelligence organizations. Hospital leaders should contact their MEDBDE S2 for any medical intelligence information and review all medical intelligence analysis to better support the deployed force with hospitalization support. Up-to-date medical intelligence assessments can be obtained by contacting Director, Defense Intelligence Agency, Attention: Director, National Center for Medical Intelligence, Fort Detrick, Maryland 21702-5000 or via the contact information listed on their website or by commercial (301) 619-7574 or Defense Switched Network 343-7574. Key medical intelligence factors that hospital leaders should consider are listed below:

- Review the analysis of infectious disease/chemical/biological/radiological health threats in the OE that can degrade mission effectiveness of deployed forces.
- Review analysis of endemic, emerging, epidemic and pandemic diseases, public health standards and capabilities, and the quality and availability of medical services.
- Review the foreign medical infrastructure and MTF capabilities and services assessment.
- Review the threat integration analysis and how it will affect the health of the command and the employment of hospitalization units.
- Review all orders for medical intelligence critical information requirements.
- Review the analysis of local medical supply and equipment sources that includes an analysis of local quantity, quality, and availability of medical supplies and equipment.

HEALTH THREAT ASSESSMENT

B-4. A critical element in medical planning is performing a thorough appraisal of the health threat. This assessment includes the health threat to Service members, Department of the Army (DA) Civilians, multinational partners, contractors, and local populace within the AO. The health threat is a composite of ongoing potential enemy actions; adverse environmental, occupational, geographic, and meteorological conditions; endemic diseases; and employment of weapons of mass destruction (to include CBRN weapons that have the potential to affect the short- or long-term health condition [including psychological impact] of personnel). Table B-1 on page 140 represents minimal subject areas considered in the health threat assessment.

Table B-1. Health threats

Threats	*Description of threats*
Diseases	• Endemic and Epidemic. • Foodborne. • Waterborne. • Arthropodborne. • Zoonotic. • Vectors.
Occupational and Environmental Health Hazards	• Climatic (heat, cold, humidity, and significant elevations above sea level). • Toxic industrial materials. • Accidental or deliberate dispersion of radiological and biological material. • Disruption of sanitation services or facilities (such as sewage and waste disposal). • Disruption of industrial operations or industrial noise. • Accidental injuries (falls, crush injuries, sports injuries, vehicle accidents).
Poisonous or Venomous Animals, Flora, and Fauna	• Poisonous plants and bacteria. • Venomous reptiles, amphibians, arthropods, and animals.
Medical Effects of Weapons	• Conventional (to include blast and mild traumatic brain injury). • Improvised (to include improvised explosive devices). • Chemical, biological, radiological, and nuclear warfare agents. • Directed energy. • Weapons of mass destruction.
Physiological and Psychological Stressors	• Continuous operations. • Combat and operational stress reactions. • Wear of mission-oriented protective posture ensemble. • Stability tasks.

HOSPITAL PLANNING

B-5. AHS planning encompasses the integration of the operational management of the FHP and HSS missions for training, predeployment, deployment, and postdeployment operations. AHS includes all mission support services performed, provided, or arranged by the operational medicine formations to support FHP and HSS mission requirements for the Army and as directed, for joint operations, intergovernmental agencies, and multinational forces. For additional operational medicine planning guidance and terminology, refer to ATP 4-02.55.

B-6. The planning factors in the remainder of this appendix complement the considerations regarding the employment of theater hospitalization discussed in previous chapters. When planning and executing theater hospitalization, it is important to consider and use the existing planning factors available for the various commodities within a hospital. This is where the art of planning (based on experience) combines with the science of data analysis to produce the best possible execution of hospitalization.

B-7. Military operations may require AHS support for a wide category of potential patients. The diverse and varied potential AHS demands should be carefully considered in initial planning. Categories that require careful consideration include indigenous allies, friendly and unfriendly civilians, paramilitary organizations, representatives of various U.S. agencies, U.S. civilian contractor personnel, and other individuals that may be entitled to care based on agreements with multinational forces and the HN. There are fine lines of distinction that should be clarified by the command. For example, wounded unfriendly civilians may be detainees subject to restrictions and regulations which do not apply to EPWs for their treatment.

ELIGIBILITY OF CARE DETERMINATION

B-8. Through the orders process, hospital commanders should ensure that the eligibility for care matrix is widely disseminated throughout the command and that all medical personnel are aware of the process and how to obtain additional guidance, if required. Eligibility of care determination may impact the Role 3 hospital and effect several hospital planning considerations. Hospital leaders should look for the eligibility of care determination in Annex F (Sustainment), Appendix 3 (HSS) and plan accordingly. Table B-2 depicts a sample eligibility for medical and dental care support matrix for inclusion in operations plans and orders. For more information on eligibility for care determination, refer to FM 4-02.

Table B-2. Sample eligibility for medical and dental care support matrix

ELIGIBILITY FOR MEDICAL AND DENTAL CARE SUPPORT MATRIX (DATE) (THIS DOCUMENT IS SUBJECT TO FURTHER VERIFICATION AND OR MODIFICATION		
Category	***Medical/ dental***	***Information/authority****
Uniformed United States Service members	Yes	U.S. law. (CAC or ID tags)
Multinational/Coalition military personnel	Yes[1]	The following nations have acquisition and cross servicing agreements and multinational force compatibility agreements with the United States, which are administered by (combatant command): List nations. (Foreign ID or USG-provided ID)
Department of Defense Civilian employees	Yes[3 and 4]	ID card and CEW orders.
U.S. Government employees (non-Department of Defense)	Yes [2, 3 and 4]	ID card and ITO.
U.S. Embassy personnel	Yes[3 and 4]	ID card and ITO for U.S. citizens on official business.
U.S. Congressional personnel	Yes[3 and 4]	ID card and ITO for U.S. citizens on official business.
Army and Air Force Exchange Service U.S. citizen employees	Yes[3 and 4]	ID card and ITO.
Army and Air Force Exchange Service Local national employees	Yes[3 and 4]	U.S. law.
Nonappropriated fund instrumentality morale, welfare, and recreation U.S. employees	Yes[3 and 4]	ID card and ITO.
United Nations personnel (includes all personnel employed by the United Nations and its agencies, such as the United Nations High Commissioner for Refugees)	Yes[3 and 4]	U.S. law. (ID card and ITO).
Red Cross	Yes[3 and 4]	ID card and ITO.
NGOs	Yes[3 and 4]	ID card and LOA
Contractor #2 all employees POC: Mr. Michaels (XXX) XXX-XXXX ADMIN: Mr. Johns *DSN XXX-XXXX*	Yes[3] *No*[5]	Contractor did not contract for the provision of medical care by military medical treatment facilities. Contractor stated in writing that they contracted with the host-nation medical infrastructure for the required care. (CAC and LOA). *Note*. A separate determination may be required for individual cases as the individual may be eligible for care under a different provision. Contact Mr. Patrick, DSN XXX-XXXX if additional information is required.

SAMPLE

Table B-2. Sample eligibility for medical and dental care support matrix (continued)

Category	*Medical/ dental*	*Information/authority**
Contractor #5 Mr. Michael James (company name classified) POC: Ms. Emory (XXX) XXX-XXXX ADMIN: Mr. Johns DSN XXX-XXXX	Yes[6]	Per Mr. Patrick, Mr. James is entitled to full medical and dental support; however, this care is reimbursable. The terms of the contract and the name of the contracting company are classified. Contact Mr. Patrick, DSN XXX-XXXX, if additional information is required. (CAC and LOA).
Dependents of U.S. active duty or retired military personnel	Yes[4]	Only if space is available and appropriate medical services/care are available in the operational setting. AR 40-400. Contact Mr. Patrick, DSN XXX-XXXX, if additional information is required.
Personnel in custody of U.S. military forces	Yes	Enemy prisoner of war and detained personnel. Extent of care rendered is the same as that provided to U.S. military forces within the geographical area. (Army Techniques Publication 4-02.46 and Field Manual 6-27).
Individual injured as a result of military operations	Yes	U.S. and international law (Field Manual 6-27) and status of forces agreements. If the U.S. military injures an individual (such as in an automobile accident involving a military vehicle), the U.S. is responsible for providing immediate care (or paying for local care). Coordinate with Mr. Patrick, DSN XXX-XXXX and Lieutenant Colonel Hall, supporting staff judge advocate, DSN XXX-XXXX.

Notes:

* Illustrative in nature only.

[1] Multinational force member nations are provided food, water, fuel, and medical treatment pursuant to reciprocal agreements. The amount of food, water, fuel, and medical care provided should be accounted for by the providing nation to the assistant chief of staff, Civil Affairs operations (G-9). Logistical support is not permitted for those nations with whom the U.S. does not have both an acquisition and cross-servicing agreement and multinational force compatibility agreement. However, the acquisition and cross-servicing agreement and multinational force compatibility agreement requirements may be waived for those nations whom the commander, in conjunction with the supporting staff judge advocate, feels are supporting the missions of the command.

[2] If not working for, contracted to, or on DOD multinational force compatibility agreement for logistical support, non-DOD U.S. Government employees must pay for meals received at DOD dining facilities.

[3] Emergency medical and dental care only. Emergency care is that care required to save life, limb, or eyesight.

[4] Space available.

[5] Routine.

[6] Reimbursable.

Legend:

Admin	administration	ITO	invitational travel orders
AR	Army regulation	LOA	letter of authority
CAC	common access card	NGOs	nongovernmental agencies
CEW	civilian expeditionary workforce	POC	point of contact
DOD	Department of Defense	U.S.	United States
DSN	defense switched network	USG	United States government
ID	identification		

SAMPLE

Detainee Medical Planning

B-9. The law of armed conflict (refer to FM 6-27/MCTP 11-10C), states that detainees should be afforded the same medical care as patients of the detaining power. Seriously WII detainees will be evacuated through medical channels but will be segregated from United States and multinational patients. Enemy prisoners of

war will be evacuated from the combat zone as soon as possible. They will not be hospitalized in hospital wards with United States military patients. Except in emergencies, detainees will be hospitalized in housing equal to that used for U.S. military personnel. Accountability and security of detainee patients will be processed through appropriate channels following treatment. Qualified medical retained personnel will be used as much as possible in medical and hygiene work needed for the well-being of detainees. For additional information on AHS support to detainee operations refer to ATP 4-02.46 and TC 8-250.

HOSPITAL CENTER REQUIREMENTS COMPUTATIONS

B-10. The BOA for the field hospital (32-bed) and hospital augmentation detachments are depicted in table B-3 to simplify the BOA found in the Section One of the corresponding TOEs. The BOA in the TOEs is based on computer simulation models and although they can be calculated and produce an accurate number; it is a difficult process.

Table B-3. Role 3 hospital elements basis of allocation

PHASE	*FIELD HOSPITAL (32-BED)*	*SAD (24-BED)*	*MAD (32-BED)*	*ICWAD (60-BED)*
Phase I-III (MCO) for brigade and echelons above brigade hospital direct admissions per 100 occupied beds:				
Units/100 WIA	1.11	1.11	0.50	0.61
Units/100 DNBI	0.66	0.00	0.58	0.66
Units/100 nerve	0.39	0.20	0.20	0.39
Units/100 blister	0.82	0.00	0.72	0.82
For Theater direct admissions per 100 occupied beds:				
Units/100 WIA	0.82	0.75	0.07	0.82
Units/100 DNBI	0.45	0.00	0.40	0.45
Units/100 nerve	0.48	0.00	0.42	0.48
Units/100 blister	0.47	0.00	0.41	0.47
For Theater Hospital Transfer Admissions per 100 occupied beds:				
Units/100 WIA	0.77	0.57	0.20	0.77
Units/100 DNBI	0.31	0.00	0.27	0.31
Units/100 nerve	0.93	0.00	0.81	0.93
Units/100 blister	0.13	0.00	0.12	0.13
For Theater Hospital Transfer Admissions with skip:				
Units/100 WIA	0.69	0.38	0.31	0.69
Units/100 DNBI	0.21	0.00	0.18	0.21
Units/100 nerve	0.92	0.00	0.81	0.92
Units/100 blister	0.92	0.00	0.81	0.92
Phase IV (Stabilize) Apply MCO rule for United States supported forces and add for directed support for host nation population at risk:				
	One (1) per 50,000	Zero (0)	One (1) per 57,000	One (1) per 50,000
Phase V (Enable Civil Authority) Basis of allocation adjustments will be based on roles of care directed and population at risk supported.				

Legend:

DNBI	disease and non-battle injury	MCO	major combat operations
ICWAD	hospital augmentation detachment, (intermediate care ward 60-bed)	SAD	hospital augmentation detachment, (surgical 24-bed)
MAD	hospital augmentation detachment, (medical 32-bed)	WIA	wounded in action

B-11. When the tool is opened, enable editing, enable content, and select one of the populations at risk categories in the drop-down listings. The medical planner will enter the correct PAR and estimated beds occupied by four different categories of patients. The spreadsheet will then calculate the beds and units required to support the estimation of occupied beds. The medical planner can enter information in column J and review the results of beds required versus beds allocated by various hospital unit compositions or configurations.

B-12. Allocations based on single components (without considering other components) will not provide the full complement of beds or operating tables and surgical hours for the hospital. The exception would be employment of a single HHD, hospital center and one field hospital (32-bed) component that would provide all necessary services until all 32-beds are filled. At that point, augmentation component(s) to provide additional capacity for holding patients or evacuation would be needed to maintain the operational capability.

B-13. If CBRN patients are not anticipated, the planner can build the unit based only on WIA and DNBI casualty estimates. The Joint Medical Planning Toolkit can be used to estimate a casualty stream based on the variables for the opposing forces, weather, and terrain and other factors. The number of WIA and DNBI casualties expected daily multiplied by the factors in the table below for each type of casualty will determine the number of each component that will be needed. The planner will have to round down or up for each unit to arrive at the integer number of components necessary to support the operation. For detailed information on this process, refer to ATP 4-02.55. The tables and instructions for calculating BOA below provide an example based on arbitrary expected bed occupancy numbers.

B-14. The U.S. Army Futures Command, Analysis Branch, developed an Excel spreadsheet modeling tool to assist medical planners in determining the appropriate hospital elements to provide Role 3 hospitalization in an AO. The tools provide the resources to plan for hospitalization as a system of components that can be employed to build a hospital varying from 32-beds to 240 beds. The appropriate mix of components can be calculated from casualty estimates and application of the BOA for 1,000 beds occupied by WIA, DNBI, nerve, and blister patients. This tool is located MEDCoE Doctrine Microsoft team, under the MEDCoE Doctrine Channel - World Wide channel, 02 – Operational Medicine Planning tools. – World Wide. The tool is currently named ATP 4-02.10_FH_Solver_Production_with_NEO.

B-15. A dispersion allowance of 20 percent is normally used for hospitals in the theater. This is to accommodate the occasional shut-down and movement of hospitals to follow the maneuver forces and other reasons why a totally full hospital system is not feasible. The dispersion factor for that 20-percent allowance is 1.25. The allocation rules in table B-4 incorporate dispersion factors. Refer to ATP 4-02.55 for more information on dispersion factors and allowance.

Table B-4. Basis of allocation per patient type per 1000 patients

Basis of allocation by type of patient per 1,000 patients					
Hospital component	***Modules per 1,000 occupied beds***				
	Beds/ Cots per unit	***Wounded in action***	***Disease and nonbattle injury***	***Nerve***	***Blister***
Headquarters and Headquarters Detachment, Hospital Center	0	The hospital center is allocated 1 per 2 field hospitals (it should deploy with the first field hospital [32-bed]).			
Field Hospital (32-bed)	32	12.40%	5.56%	3.27%	1.56%
Hospital Augmentation Detachment, (Surgical 24-bed)	24	12.92%	0.00%	0.00%	3.13%
Hospital Augmentation Detachment, (Medical 32-bed)	32	11.88%	7.21%	6.55%	0.00%
Hospital Augmentation Detachment, (Intermediate Care Ward 60-bed)	60	0.01%	9.45%	2.63%	0.00%
Medical Detachment, (Minimal Care) (120-cot) (when attached)	120	1.35%	2.28%	6.48%	9.38%

Note. The medical detachment, minimal care does not have beds. It has cots designated for ambulatory patients being evacuated or returned to duty. The medical equipment set is designed to support minimal care ambulatory patients.

B-16. Instructions for computing the number of HHD, hospital centers, field hospitals (32-bed) and augmentation detachments required to provide Role 3 hospitalization with expected WIA and DNBI occupied beds—

- Obtain the daily casualty counts by WIA and DNBI (this example will not address chemical casualties). Table B-5 shows the expected daily bed occupancy for this example.
- At the end of 5 days, the anticipated bed occupancy will be 120 WIA and 95 DNBI patients (after removing any return-to-duty patients, died of wounds received in action-in-hospital patients, and evacuated patients from the occupied beds census).
- The planner should consult the BOA tables above to find the WIA and DNBI factors for each component of the hospital system.

Table B-5. Expected daily bed occupancy

Expected bed occupancy by type		
Day	***Wounded in action***	***Disease and nonbattle injury***
1	20	15
2	50	40
3	80	65
4	100	80
5	120	95

B-17. The BOA is defined as the placement of the unit and quantity based off the Training and Doctrine Command's rules of allocation analysis process and final determination. It is the foundation or basis of where the unit needs to be and the quantity required. The BOA gives all unit's equal amounts as an initial planning factor. During large-scale combat operations, leaders should have the operational freedom to reallocate medical forces where they are needed. Unit leaders should not solely base what medical support a unit is authorized on the BOA. They should use the casualty estimate, PAR, patient densities, mission variables, and orders process during the military decision-making process to ensure the six AHS principles are applied in the employment of scarce medical support to the deployed force. This application of medical C2 ensures units that are designated as the center of gravity or main effort in the orders process, that will be taking more casualties based off the mission variables, receive more medical support, while supporting efforts may receive less. This applies to all operational medicine units.

B-18. For example, a main effort BCT's casualty estimate is 800 for the next 48 hours. 20 percent of these 800 casualties may require surgical intervention. That is up to 160 surgeries required over 48 hours. The BCT has one attached FRSD that can perform 30-48 surgical interventions over 72 hours which equates to 20-32 for 48 hours. Even though the BOA states one FRSD per committed BCT, the main effort BCT would require additional FRSD augmentation to meet the forward surgical demand. The division could attach the FRSDs from the other BCTs within the division or request addition FRSD or medical company (area support) support from the corps. These decisions are dependent upon the mission variables, PAR, patient densities, availability of additional forward surgical capabilities, and orders process.

B-19. Medical planners and hospital leaders should review the theater evacuation policy. This analysis should cover the entire theater or supported AO to ensure there is adequate Role 3 hospitalization at echelon to support the deployed force and conform to the OPLAN/OPORD. In accordance with the theater evacuation policy, consideration should be given to placing admission timeframe limitation planning factors at echelon. Operational medicine has a limited amount of hospital beds, these planning factors will aid medical planners and hospital leaders in ensuring the clearing of hospital beds is a theater priority. The Role 3 hospital in support of the division must maintain mobility to keep proximity to the supported maneuver element. As an example, some consideration should be given to limiting admissions to three to seven days in the division. In the corps, hospitalization may move less. Consideration of up to 14 days admission should be discussed as a planning factor. In the theater, medical planners can consider up to 30 days admission if

service members can be returned to duty. All recommended admission time frame planning factors must be in consonance with the theater evacuation policy, mission variable, and orders process.

B-20. Army hospitalization modularity comes in a series of two OR table each. For planning factors, each table equals a 24-hour cycle. For 18 hours in a 24-hour cycle that OR table can perform surgery. Six hours of each 24-hour cycle is dedicated as a rest period for the surgical team aligned with that OR table. Hence the term OR hours. Rest periods should be staggered to maximize the amount of OR tables in use. OR table planning factors are depicted on table B-6. Surgical intervention planning factors are 135 minutes per procedure for the FRSD and 3 hours per procedure for the OR/CMS section of the field hospital (32-bed) and SAD (24-bed). This three hour includes the cleanup and turnover of the OR.

Table B-6. Operating room hour planning factors

Operating room hours per 24-hour cycle			
Unit	***Operating room table per unit***	***Operating room hours per 24-hour cycle***	***Rest period per 24-hour cycle***
Field Hospital (32-bed)	2	36	12
Hospital Augmentation Detachment (Surgical 24-bed)	2	36	12
Forward Resuscitative and Surgical Detachment	2	36	12
Hospital Augmentation Team (Head and Neck)	The head and neck team does not have organic operating room tables and relies on the Role 3 hospital. The head and neck team augments the hospital operating room surgical and nursing services and provides— • Initial and secondary ear, nose, and throat surgery. • Initial and secondary neurosurgery. • Initial and secondary eye surgery. When the head and neck team is attached to the Role 3 hospital, surgical planners need to ensure an operating room table is dedicated or made available when needed for the types of surgeries depicted above.		
Note: a single operating room table can perform 18 hours of surgery with 6 hours of rest in a 24-hour cycle. Surgical units need to stagger their operating rooms to maximize the number of surgical interventions that occur within a 24-hour cycle.			

B-21. To compute the components required to support this bed occupancy workload, multiply the factors in the WIA and DNBI columns and the beds occupied on day 5 (example from table B-5), and divide by 1,000. Thus—

- Field hospital (32-bed) = WIA bed occupancy X WIA factor /1000 + DNBI bed occupancy X DNBI factor /1000.
- Field hospital (32-bed) = 120 X 12.40 / 1000 + 95 X 5.56 / 1000.
- Field hospital (32-bed) = 1.49 + 0.52 = 2.01 or 2 field hospitals (32-bed) components (plus one HHD, hospital center).
- Hospital augmentation detachment surgical (24-bed) = 120 X 12.9 / 1000 + 95 X 0.00 / 1000.
- Hospital augmentation detachment surgical (24-bed) = 1.55 + 0 = 1.55 or 2 hospital augmentation detachments, surgical (24-bed).
- Hospital augmentation detachment (medical 32-bed) = 120 X 11.9 / 1000 + 95 X 7.21 / 1000.
- Hospital augmentation detachment (medical 32-bed) = 1.43 + 0.68 = 2.11 or 2 hospital augmentation detachment (medical 32-bed).
- Hospital augmentation detachment (ICW 60-bed) = 120 X .01 / 1000 + 95 X 9.45 / 1000.
- Hospital augmentation detachment (ICW 60-bed) = 0.01 + .90 = .91 or 1 hospital augmentation detachment (ICW 60-bed).

Note. Minimal care cots are not calculated in the computation of the 240-maximum number of beds in the hospital center. The cots are considered as an augmentation of the hospital and established to provide care for ambulatory patients requiring minimal medical care or assistance and meet the criteria to be returned to duty within the prescribed theater evacuation policy.

- Medical detachment (minimal care) = 120 X 1.35 / 1000 + 95 X 2.28 /1000.
- Medical detachment (minimal care) = 0.16 + 0.27 = 0.43 or 1 medical detachment (minimal care).

B-22. These calculations result in several fractions-2.01 field hospitals (32-bed) (and one HHD, hospital center); 1.55 hospital augmentation detachments (surgical 24-beds); 2.11 hospital augmentation detachments (medical 32-bed); 0.91 hospital augmentation detachment (ICW 60-bed); and 0.43 medical detachments, minimal care. The planner should then look at the capabilities of the components and round the fractions to estimate the correct number of beds, OR capacity, and type of hospital capabilities required. One possibility is-HHD, hospital center; two field hospitals (32-bed); two hospital augmentation detachments (surgical 24-beds); two hospital augmentation detachments (medical 32-bed); and one hospital augmentation detachment (ICW 60-bed). The medical detachment (minimal care) can be ignored because in this example there is enough available capacity for the expected minimal care patients in the ICW wards. The results of the computations are illustrated in table B-7.

Table B-7. Basis of allocation computation results

Unit	***Beds/Cots available***	***# Units***	***Beds/Cots required***	***Beds/Cots occupied***
Headquarters and Headquarters Detachment, Hospital Center	0	1	0	
Field Hospital (32-bed)	32 (ICU: 12, ICW: 20)	2	64 (ICU: 24; ICW 40)	ICU: 18; ICW: 37
Hospital Augmentation Detachment (Surgical 24-bed)	24 (ICU: 24)	2	48 (ICU: 48	ICU: 45
Hospital Augmentation Detachment (Medical 32-bed)	32 (ICU: 12; ICW: 20)	2	64 (ICU: 24; ICW: 40)	ICU: 23; ICW: 38
Hospital Augmentation Detachment (Intermediate Care Ward 60-bed)	60 (ICW: 60)	1	60 (ICW: 60)	ICW: 55
TOTAL BEDS	148		236	216 (ICU: 88; ICW: 128
Medical Detachment, (Minimal Care) (when attached)	120 (MCC: 120)	1	120 (MCC: 120)	MCC: 98
TOTAL COTS	120		120	MCC 98
TOTAL BEDS/COTS	268		356	314
Note. The medical detachment, minimal care does not have beds. It has cots designated for ambulatory patients being evacuated or returned to duty.				
Legend: ICU intensive care unit MCC minimal care cot ICW intermediate care ward				

B-23. There are enough beds to provide for the dispersion factor. However, the beds required appears to exceed what one HHD, hospital center, can support by 116 beds. Due to C2 limitations and span of control, the maximum bed configuration for a single HHD, hospital center, is restricted to 240 beds. However, the medical detachment, minimal care beds do not count against the maximum 240 bed limitation of the hospital center. It may, however, be considered a good option to deploy a second HHD, hospital center in this example.

HOSPITAL CENTER SUSTAINMENT AND SPACE REQUIREMENTS

B-24. The hospital center and subordinate detachments require a significant amount of logistical and transportation support getting to and once in theater. When planning for placement of Role 3 hospitals, medical planners and hospital leaders should consider fuel, power, water and space requirements. These

requirements should include external support available and the amount of time it will take to decomplex, containerize, transport, and complex a Role 3 hospital. Medical planners and hospital leaders cannot expect a hospital to relocate from one location to another and be able to provide the full complement of Role 3 medical care at the new location in just one or two days. Executing the move of a hospital center may take a significant amount of time (depending upon the distance required to move and training level of the unit) considering the required planning, coordination for resources, evacuation of all patients, systematically discontinuation of services, decomplexing and packing the hospital, conducting the move, and then complexing the hospital is a significant undertaking.

B-25. Table B-8 depicted an overall estimate of fuel, power, water, and space requirements for the hospital center. This also includes the organic tents, shelter, containers, vehicles, life support and housing space, and the space required to properly disperse them during large-scale combat operations. Table B-8 also lists the transportation requirement planning factors for movement of the Role 3 hospital.

Table B-8. Estimated hospital center sustainment and space requirements

Hospital Unit	*Diesel (Gal/ Day)*	*Gas (Gal/ Day)*	*Power (Kw/ Day)*	*Water (Gal/ Day)*	*Operational Space (Acres)*	*Housing (Acres)*	*Comm Trucks (Asstd)*	*Rail (flatcar)*	*Air (C-17)*
HHD, Hospital Center (27 Pax)	10	0	118	Surgical 2,340	1.12	0.35	4	2	2
Field Hospital (32-Bed) (164 Pax)	1,006	176	755	Patient Care 4,135	6.78	0.39	37	15	13
Field Hospital (32-Bed) (164 Pax)	1,006	176	755		6.78	0.39	37	15	13
SAD (24-Bed) (66 Pax)	360	97	380	UUL 3,604	1.09	0.2	13	6	6
MAD (32-Bed) (46 Pax)	240	75	263		0.23	0.2	13	6	6
ICWAD (60-Bed) (33 Pax)	120	55	89	Laundry 1,500	0.32	0.14	5	3	3
ICWAD (60-Bed) (33 Pax)	120	55	89	Shower 3,085	0.32	0.14	5	3	3
Total (533 Pax)	**2,862**	**635**	**2,450**	**14,664**	**16.64**	**1.81**	**113**	**50**	**46**

Legend:

Asstd	assorted	ICWAD	intermediate care ward aug det (60-bed)
Aug	augmentation	Kw	kilowatt
C-17	transport aircraft	MAD	medical aug det (32-bed)
Comm	commercial	Pax	passenger
Det	detachment	SAD	surgical aug det (24-bed)
Gal	gallon	UUL	universal unit list (drinking, personal hygiene, food preparation and non/portable water)
HHD	headquarters and headquarters detachment		

HOSPITAL CENTER CONFIGURATIONS

B-26. Figure B-1 on page 150 represents the four most common task organizations for the hospital center, depending on how many field hospitals (32-bed) and augmentation detachments are required. As stated earlier, the advantage with the hospital center is the modularity and flexibility these various hospitalization elements may be task organized and configured to support the range of military operations.

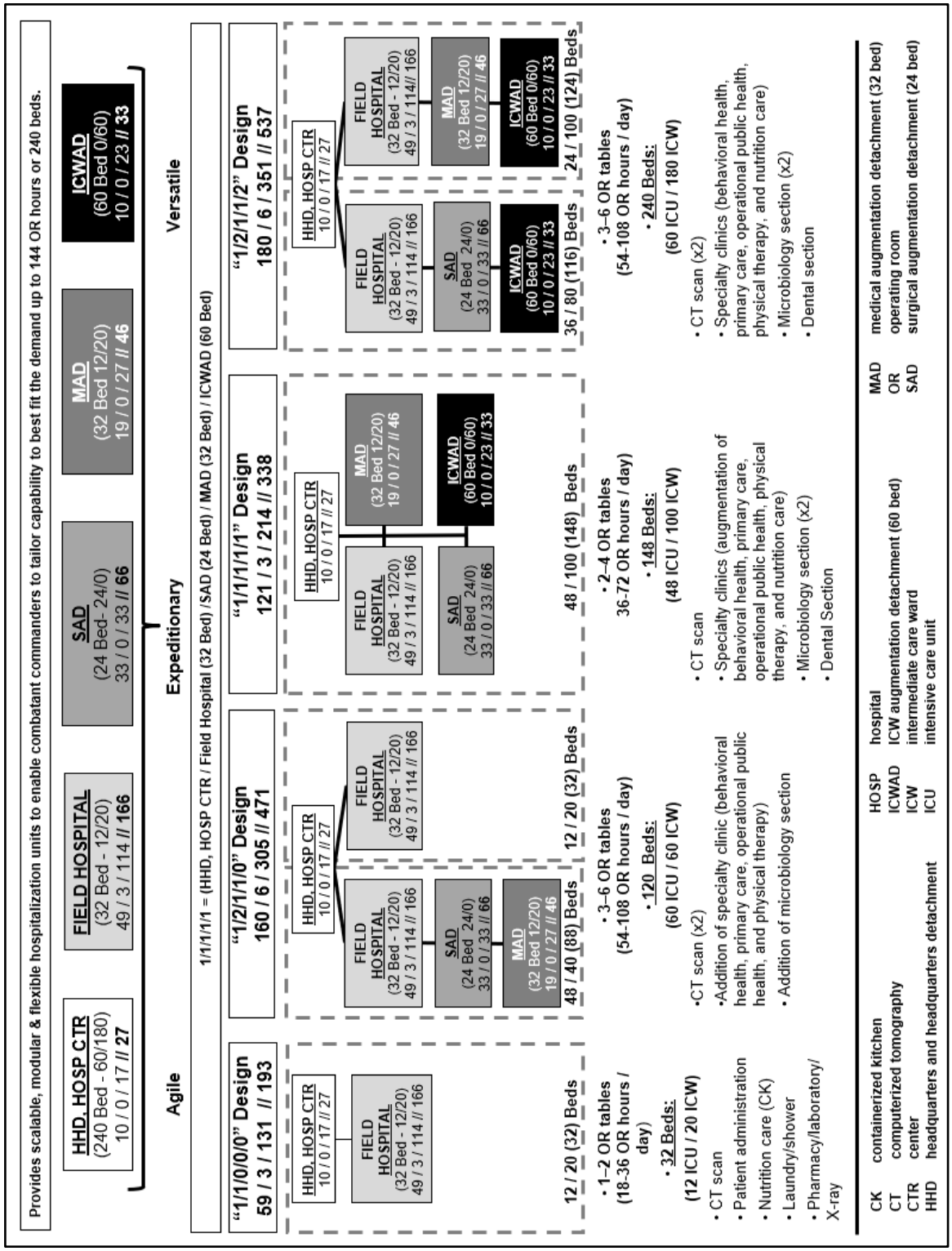


Figure B-1. Common hospital center task organizations

B-27. The hospital center has the capability of being deployed in multiple configurations to provide requisite care to any military or foreign humanitarian assistance operation. The hospital center has the capability to perform split-based operations within an AO. The HHD, hospital center has the capability to provide C2 for

up to a 240-bed hospital when configured to operate in one or two locations. Table B-9 depicts the bed types and numbers as well as surgical capabilities available per hospital module.

Table B-9. Hospitalization modules bed, cot, and surgical capabilities

Organization	*Intensive care beds*	*Intermediate care beds*	*Minimal care cots*	*Surgical tables*	*Surgical hours per 24 hours*
Headquarters and Headquarters Detachment, Hospital Center	0	0	0	0	0
Field Hospital, (32-bed)	12	20	0	2	36
Hospital Augmentation Detachment (Surgical 24-bed)	24	0	0	2	36
Hospital Augmentation Detachment (Medical 32-bed)	12	20	0	0	0
Hospital Augmentation Detachment (Intermediate Care Ward 60-bed)	0	60	0	0	0
Medical Detachment (Forward Resuscitative and Surgical)				2	36
Medical Detachment (Minimal Care) 120-Cot			120		

B-28. See table B-10 for examples of a 240-bed hospital center configuration. This is the largest configuration and is normally used during armed conflict. This table depicts a sample configuration of the hospital center designed to support a high surgical and intensive care and intermediate care planning scenario. Other configurations that would support the range of military operations such as foreign humanitarian assistance, stability tasks, or DSCA are discussed below. The field hospital (32-bed) and other augmentation detachments are dependent on transportation support from the HHD, hospital center, and may require additional transportation support based on employment criteria.

Table B-10. Example hospital center configuration (maximum 240 beds)

Hospital Units	*Intensive care beds*	*Intermediate care beds*	*Minimal care beds*	*Surgical tables*	*Surgical hours per 24 hours*
Field Hospital (32-bed)	12	20	0	2	36
Field Hospital (32-bed)	12	20	0	2	36
Hospital Augmentation Detachment (Surgical 24-bed)	24	0	0	2	36
Hospital Augmentation Detachment (Medical 32-bed)	12	20	0	0	0
Hospital Augmentation Detachment, (Intermediate Care Ward 60-bed)	0	60	0	0	0
Hospital Augmentation Detachment, (Intermediate Care Ward 60-bed)	0	60	0	0	0
TOTALS	60	180	0	6	108

HOSPITAL CENTER LAYOUT EXAMPLES

B-29. There are many ways to layout and establish the Role 3 hospital center, and it depends on factors such as the mission, task organization, single- or split-based operations, terrain, space available, personnel, and time. The layout should be established with effective and efficient movement of patients through the facility in mind and ensuring water and power is effectively established throughout the hospital. Additionally,

functions of the hospital that support other capabilities should be as close as possible to those supported sections. For example, CMS should be near the OR. Figures B-2 through figure B-9 on page 153 through page 162 provide examples of how hospital centers can be set up depending on the task organization of the hospital. While it creates extra distance from the Triage/EMT to the operating room area, the four-tent baseline (triage/EMT/pre-operative tent 1, triage/EMT/pre-operative tent 2 [used as interchange], OR/CMS tent 1 [used as an interchange], and then OR/CMS tent 2 [operating room]) is the most effective way to ensure additional capabilities can be added to the field hospital (32-bed) as the theater matures without having to disestablish (de-complex) and setup (complex) any of the established Role 3 capabilities. Hospital leaders can use TC 8-13 to assist in developing tactics, techniques, and procedures for complexing and decomplexing a Role 3 hospital.

Note. The configurations depicted in figures B-2 through B-9 are just the Role 3 hospital center footprint and do not take into consideration the space required for the containers, vehicles, and logistics support area (sleeping areas), which are required to be tactically dispersed. Proper dispersion of 50 meters between vehicles is recommended. These figures depict the tentage authorized on the unit TOE by section. Of note, the hospital center's command, staff, and sleeping tentage are not TOE equipment and are considered common table of allowance items purchased with unit funds. Refer to table B-8 on page 148 of this publication for estimated hospital center operational space requirements.

B-30. Figure B-2 on page 153 depicts a notional base Role 3 hospital center that consists of the HHD, hospital center and field hospital (32-bed). Just the hospital center footprint is more than 240 feet wide by 200 feet in length and is more than an acre in size (or around .75 of a football field). When complexing a Role 3 hospital, planners tend to use the term interchange or plan for sections to have tentage not authorized on the TOE. Doctrinally there is no dedicated interchange tentage and if using authorized hospital tentage, planners need to understand that the tent is taken out of hide from a section within the Role 3. Some areas that indicate they have tents do not. Some examples include patient administration, nutrition care, and medical maintenance. This should be a topic discussed during the military decision-making process as commanders and their planners develop the capabilities required for layout and staking of the hospital; the above-mentioned sections have no tentage and, if provided, will be taken from a section that is authorized tentage. Ultimately, commanders have the final say on how their hospital is complexed and assume risk when needed.

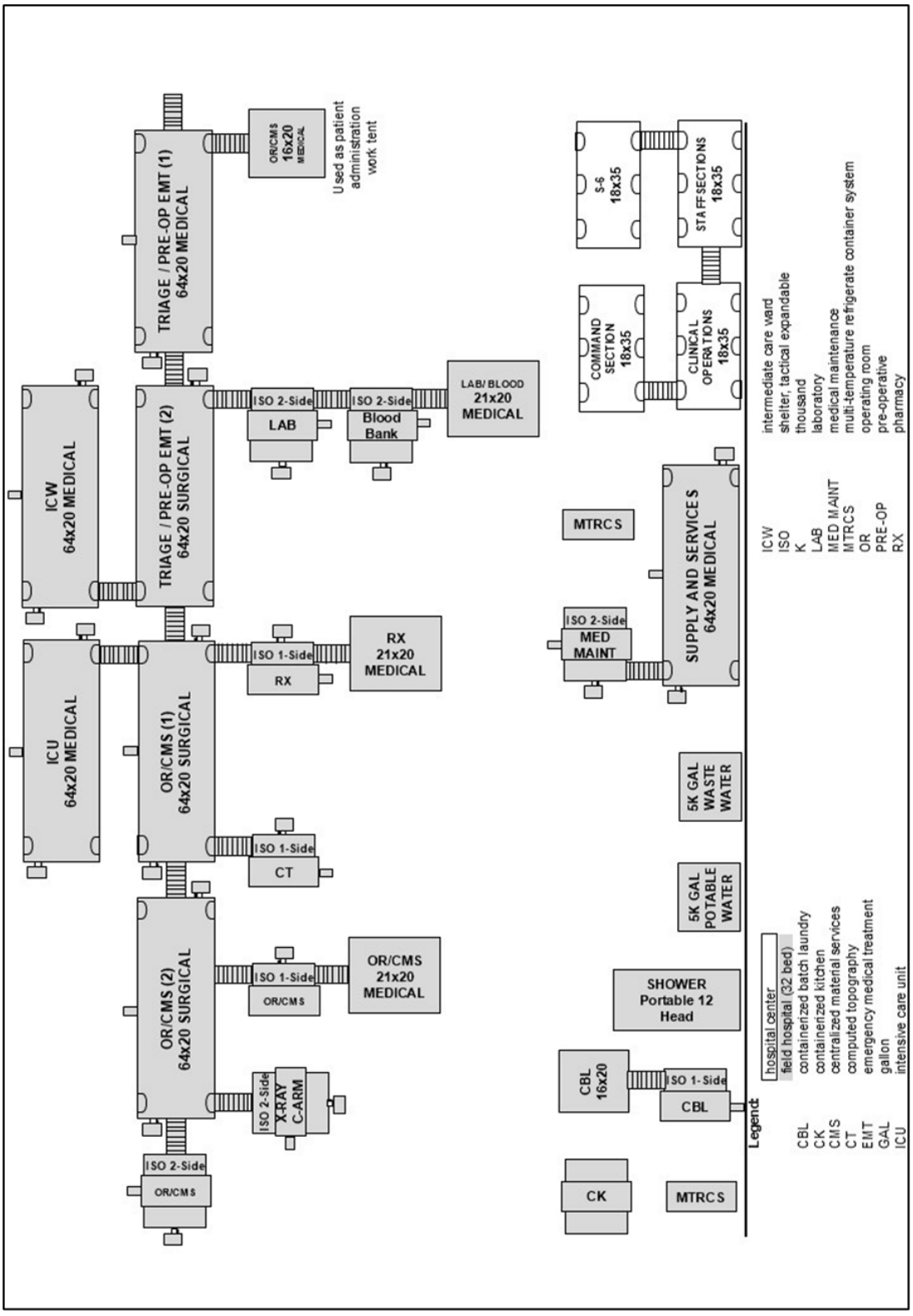


Figure B-2. Notional headquarters and headquarters detachment, hospital center and field hospital (32-bed) configuration

B-31. Figure B-3 depicts a notional 56-bed configuration (HHD, hospital center, field hospital [32-bed] and a SAD [24-bed]). These configurations are like what might be in support of stability or DSCA operations METT-TC (I) and PAR dependent.

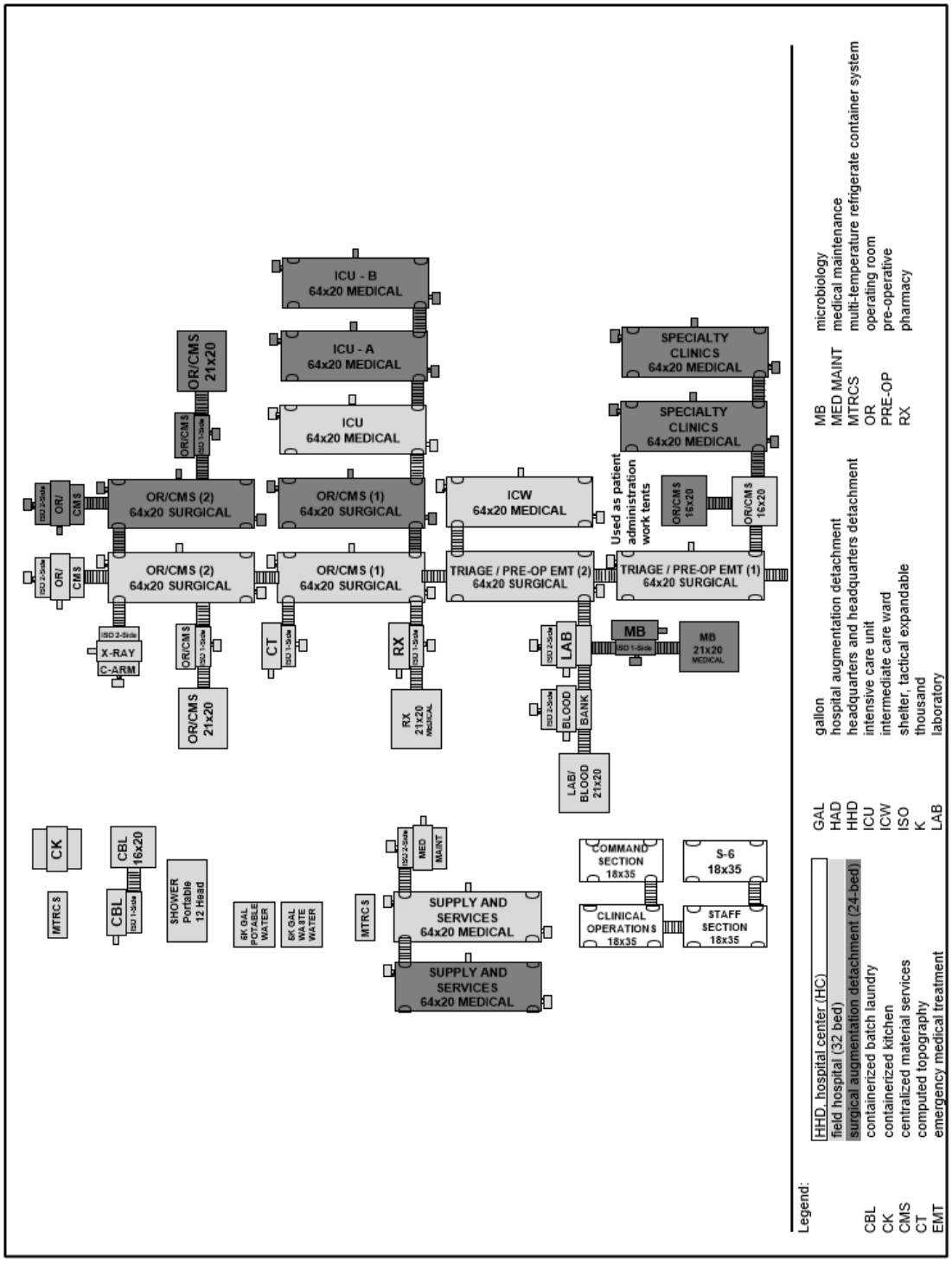


Figure B-3. Notional 56-bed hospital center configuration

B-32. Just the hospital center footprint is over 200 feet wide by 320 feet in length and is over 2.5 acres in size (nearly 2 football fields). This is just the hospital infrastructure and does not consider the disbursement of containers, vehicles, or logistics support area space requirements. Figure B-4 depicts a 64-bed configuration (HHD, hospital center, field hospital [32-bed], and a MAD [32-bed]).

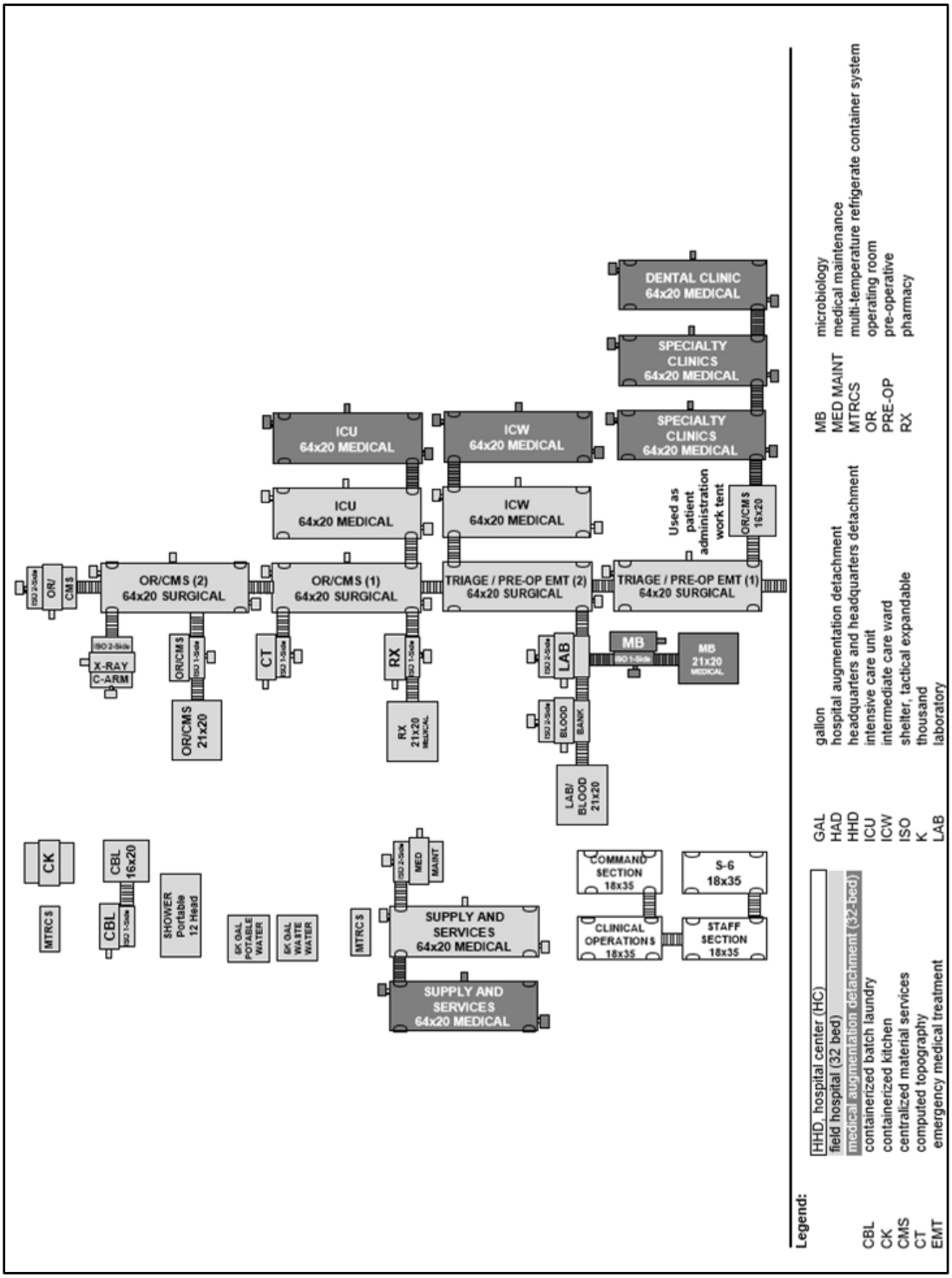


Figure B-4. Notional 64-bed hospital center configuration

B-33. Figure B-5 on page 157 depicts a notional 88-bed hospital center configuration (HHD hospital center, one [1] field hospital [32-bed], a SAD [24-bed], and a MAD [32-bed]). These configurations are likely to be deployed in a division AO during large-scale combat operations. In the offense, it may be determined to assume risk and only complex an 88-bed Role 3 hospital center. This course of action keeps one field hospital packed and ready to move forward in support of the offense. Once the field hospital (32-bed) is complexed at the new location, the Role 3 hospital at the original location initiates de-complexing the hospital and begins movement to the new location. At the new location, the field hospital (32-bed) that just moved will remain packed up and ready to move forward to continue providing hospitalization during offensive operations for the division. This maximizes the use of organic transportation assets and uses minimal sustainment transportation assets.

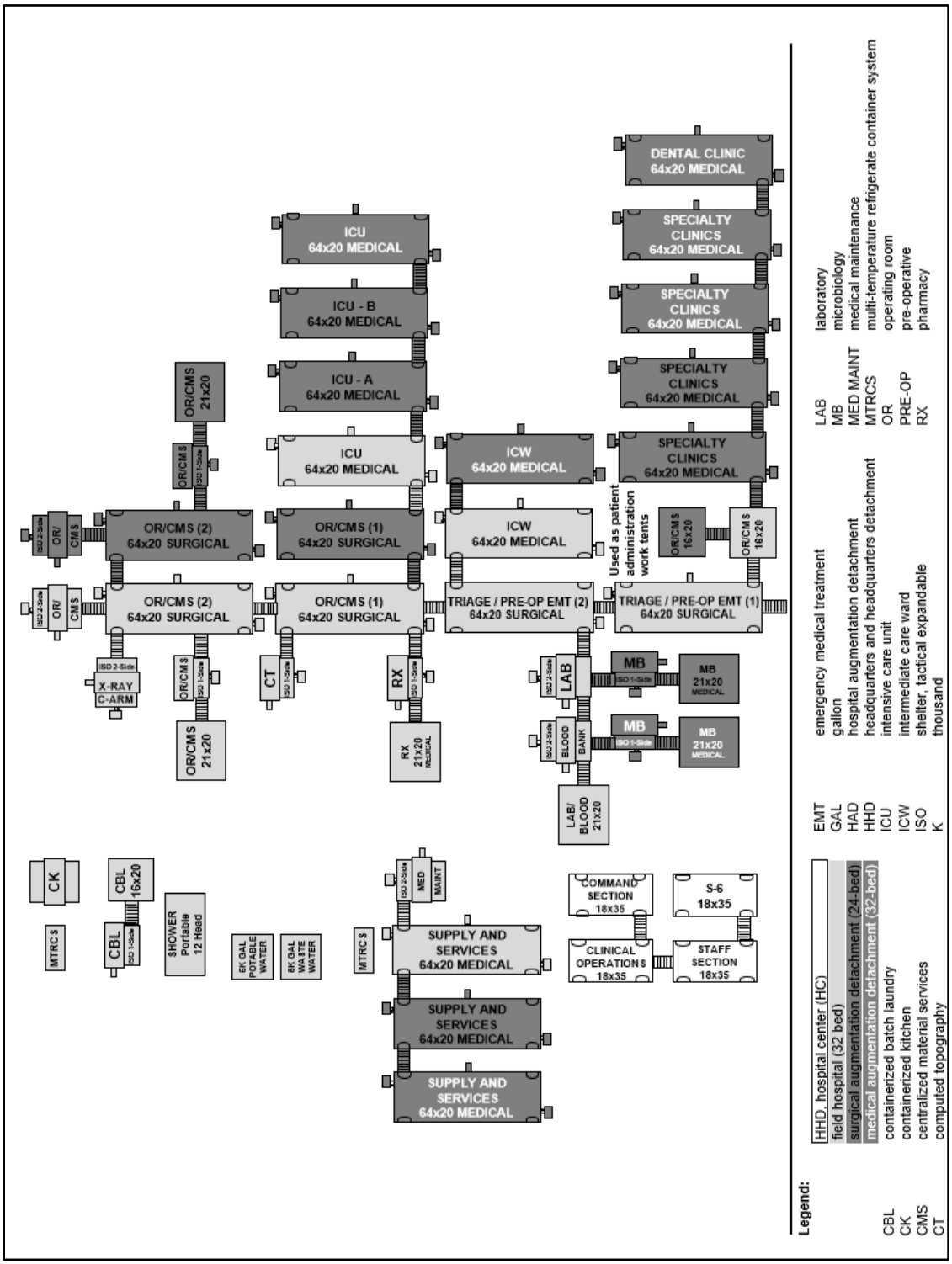


Figure B-5. Notional 88-bed hospital center configuration

B-34. Just the hospital center footprint is nearly 300 feet wide by 320 feet in length and is 96,000 square feet. This is more than two acres in size (slightly larger than two football fields). In support of defensive operations, it may be acceptable to complex the 120-bed Role 3 hospital center in two locations, METT-TC (I) dependent. Notice in figure B-6 on page 158 that the second field hospital (32-bed) is complexed in such a manner that if it should de-complexed to move forward it will not disrupt the rest of the Role 3 hospital

center. This is key in planning and staking the hospital center for support to future operations. Figure B-6 depicts a notional 120-bed hospital center configuration (HHD hospital center, two [2] field hospital [32-bed], a SAD [24-bed], and a MAD [32-bed]).

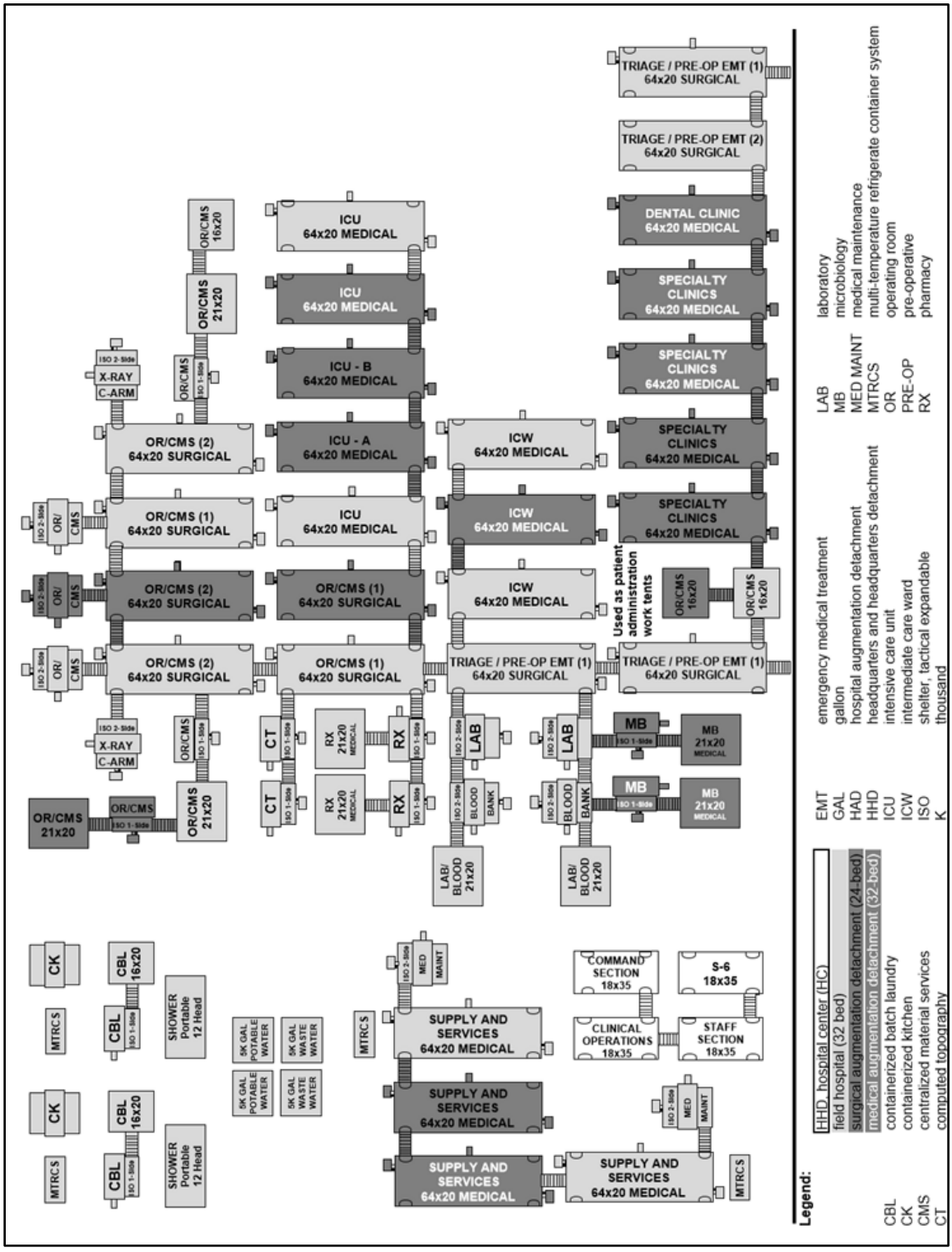


Figure B-6. Notional 120-bed hospital center configuration

B-35. Figure B-7 on page 160 depicts a notional 148 bed hospital center configuration (HHD hospital center, a field hospital [32-bed], a SAD [24-bed], a MAD [32-bed], and an ICWAD [60-bed]). Figure B-8 on page 161 depicts a notional 208 bed hospital center configuration (HHD hospital center, a field hospital [32-bed], a SAD [24-bed], a MAD [32-bed], and two [2] ICWAD [60-bed]). Figure B-9 on page 162 depicts a notional 240-bed hospital center configuration (HHD hospital center, two [2] field hospital [32-bed], a SAD [24-bed], a MAD [32-bed], and two [2] ICWAD [60-bed]). These configurations are likely to be in a corps or theater AO, METT-TC (I) and PAR dependent, and provide hospitalization support to the full range of military operations.

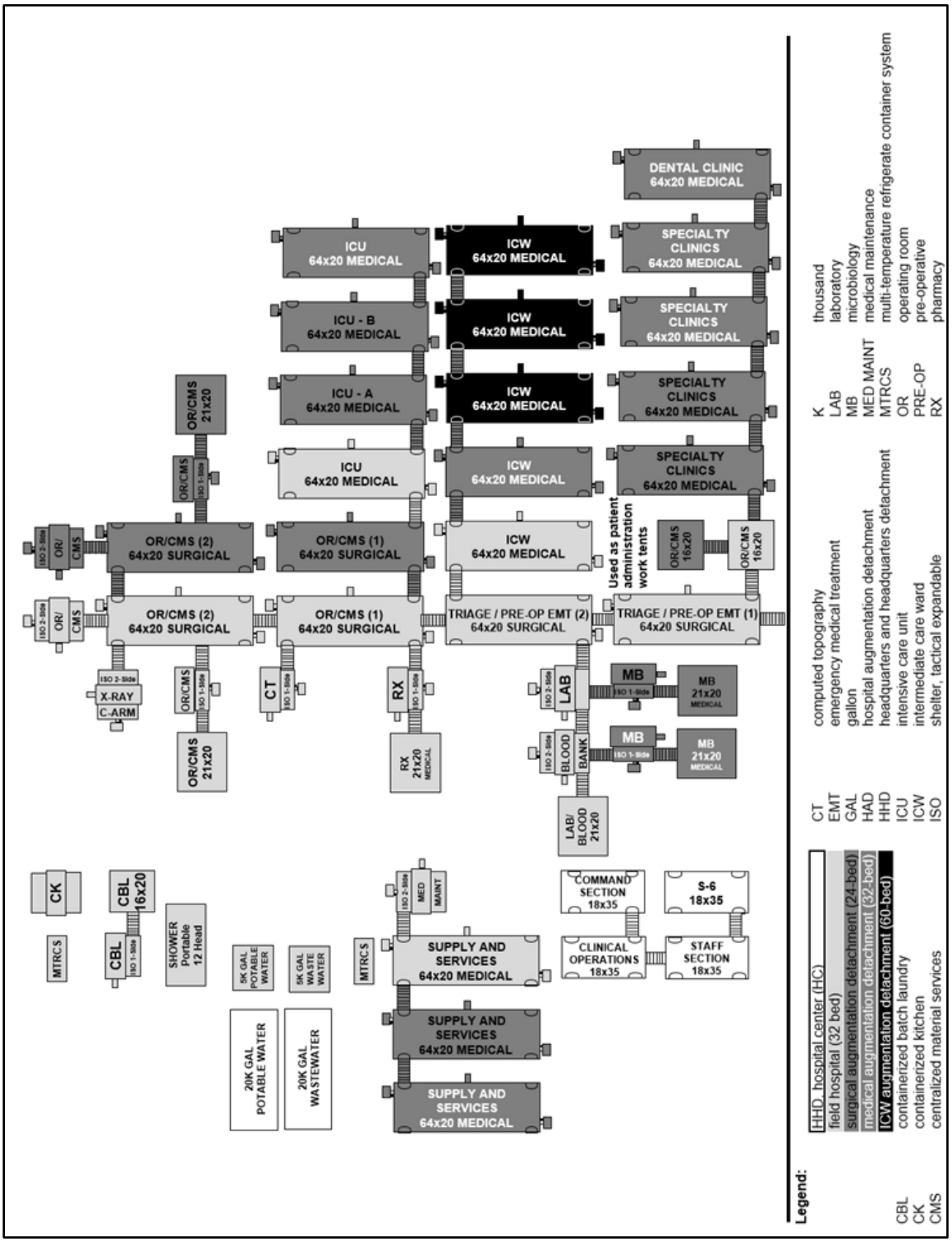


Figure B-7. Notional 148-bed hospital center configuration

Note. If a division is operating independently, METT-TC (I) and PAR dependent, it may receive hospitalization support like those depicted in figures B-7 through B-9.

B-36. In the 208 and 240-bed configurations, the hospital center footprint is more than 420 feet wide by 320 feet in length and is nearly 135,000 square feet. This is approximately three acres in size (nearly 2.5 football fields). As previously stated, this is just the hospital infrastructure and does not consider the space required for proper dispersal of containers, vehicles, or logistics support area space requirements.

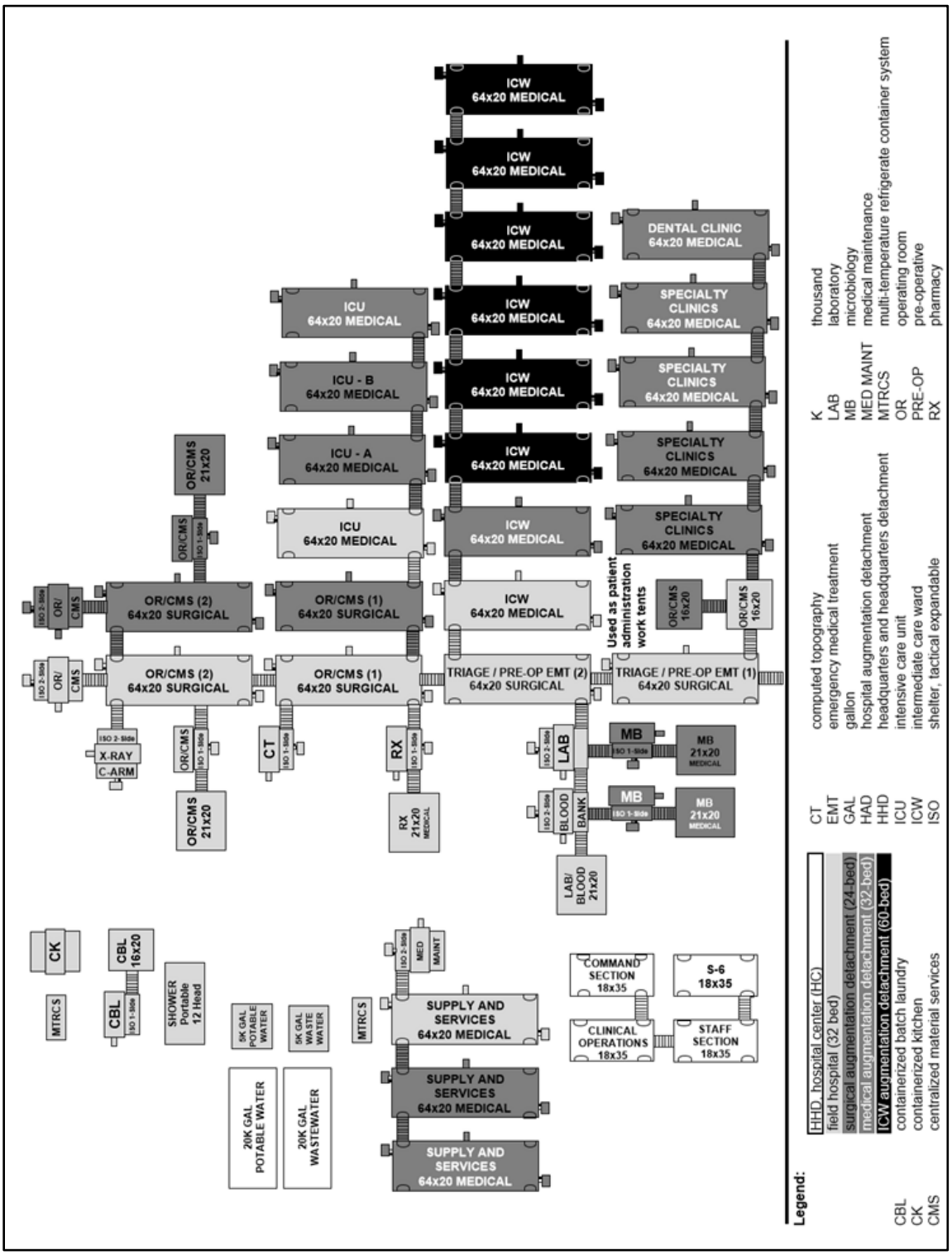


Figure B-8. Notional 208-bed hospital center configuration

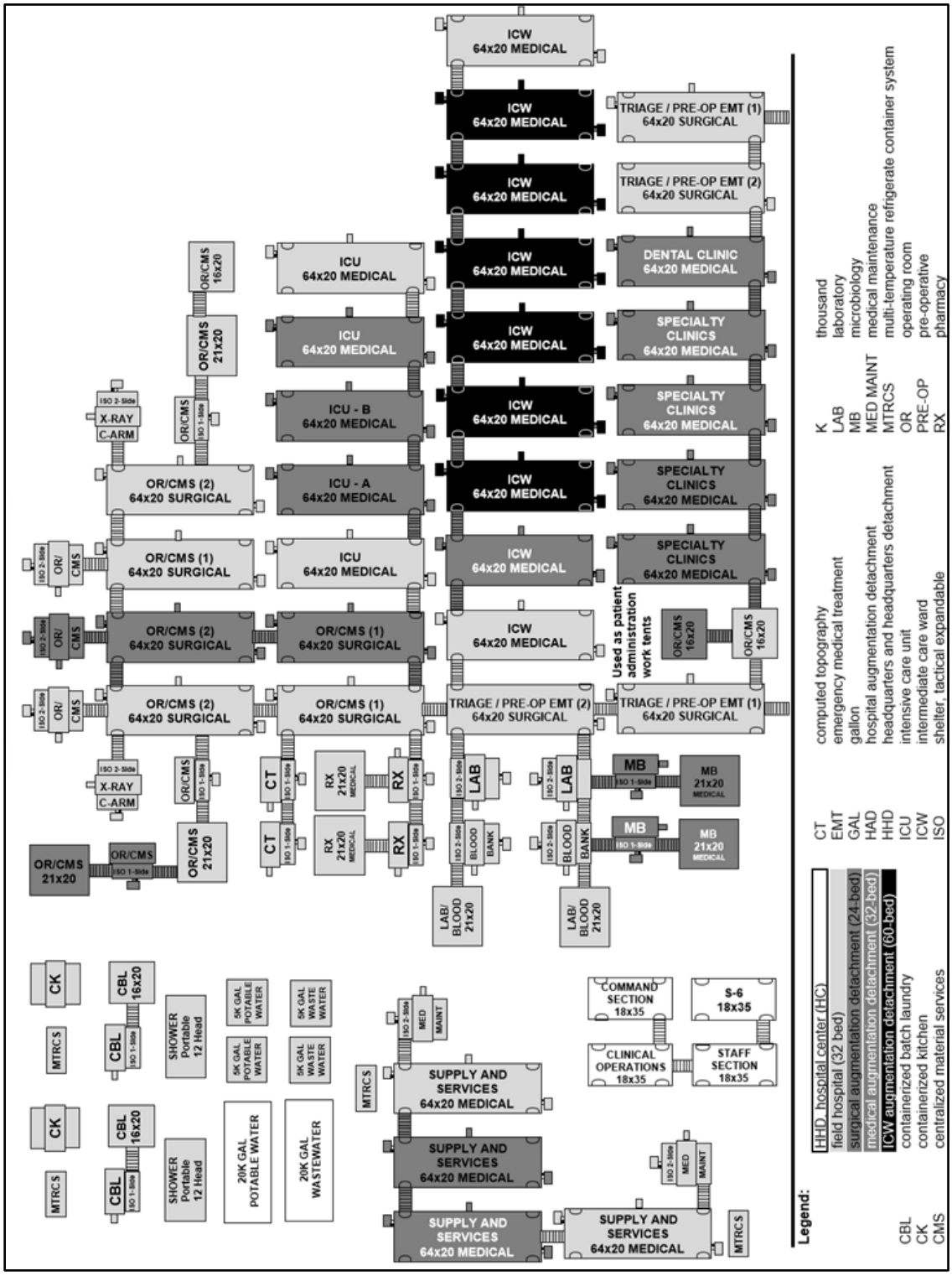


Figure B-9. Notional 240-bed hospital center configuration

TIMELINE TO ESTABLISH THE HOSPITAL

B-37. Since the hospital center is relatively new, there have not been many operational employments or training exercises conducted that would inform how long it will take to complex, erect, and become operational. From experience prior to 2001 with establishing Role 3 hospitalization in support of large-scale combat operations, an HHD, hospital center and field hospital (32-bed) should be able to provide limited C2, emergency medical services, surgical services, intensive care, and ancillary services within 24-36 hours of arrival to site. A second field hospital and augmentation detachments will take more time. Prioritizing how these services are established is up to commanders, but there should be an incremental increase in medical support capabilities throughout the period it takes to fully reach all services provided by the hospital.

B-38. Part of the timeline to establish a Role 3 hospital includes what elements of the Role 3 are required. An HHD hospital with a field hospital (32-bed) requires less time to complex than a complete 240-bed hospital center. Medical planners and hospital leadership should practice complexing and decomplexing various Role 3 hospital configurations at home station. Complexing and decomplexing timelines should be noted in the Role 3 hospital center TACSOP. Adding these timelines to the unit TACSOP will allow medical planners and hospital leadership to better forecast how long it takes to complex and decomplex the various Role 3 configurations in an operational environment. These times can be used to forecast the optimal time to move a Role 3 hospital within an established OPLAN/OPORD timeline and when to request sustainment transportation support.

ROLE 3 HOSPITAL H-HOUR SEQUENCE

B-39. The Role 3 hospital should include a version of an h-hour sequence in the TACSOP that outlines the timeline that essential hospital services may be available to the supported force. This can be included in the orders process and the status reported up to the supporting MEDBDE or supported unit headquarters if no MEDBDE is deployed to provide C2.

B-40. Table B-11 depicts a notional timeline for establishing a 148 bed Role 3 hospital. Time sequences should be adjusted to fit the Role 3 configuration required to support the PAR. The second field hospital and two ICW augmentation detachments are not annotated in the table and would have to be added in the unit TACSOP. Timeline rehearsals are crucial during home station training to ensure the Role 3 hospital can be staked and complexed in the shortest amount of time to provide hospitalization to the supported force in an OE. Role 3 hospitals should practice this in daylight, during limited visibility, and various climates.

Table B-11. Notional h-hour sequence for the Role 3 hospital

Section	*Day 1*			*Day 2*			*Day 3*			*Day 4*		
	8 hour (hr)	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*	*8hr*
Headquarters and Headquarters Detachment, Hospital Center												
Command Section			X									
Clinical Operations Section		X										
S-1 Section			X									
S-2/S-3 Section	X											
S-4 Section		X										
S-6 Section	X											
Transportation Section			X									

Table B-11. Notional h-hour sequence for the Role 3 hospital (continued)

Section	Day 1			Day 2			Day 3			Day 4		
	8hr	8hr	8hr	8hr	8hr	8hr	8hr	8hr	8hr	8hr	8hr	8hr
Field Hospital (32-Bed)												
Command Section and Company Headquarters			X									
Operations Section	X											
Triage/Pre-Operative/Emergency Medical Treatment Section	X											
Operating Room (OR)/Central Materiel Service (CMS) Section		X										
Anesthesia Service Section		X										
Nursing Service Section						X						
Intensive Care Unit (ICU) (12-Bed)		X										
Intermediate Care Ward (ICW) (20 Bed)				X								
Pharmacy Section					X							
Laboratory Services/ Blood Bank Section					X							
Radiology Section					X							
Computed Tomography						X						
Nutrition Care Section						X						
Patient Administration Section	X											
Supply and Services Section					X							
Laundry/Shower Section						X						
Surgical Augmentation Detachment (24-Bed)												
OR/CMS Section							X					
Anesthesia Service Section							X					
ICU – A (12 Bed)							X					
ICU – B (12 Bed)								X				
Specialty Clinics Section									X			
Microbiology Section									X			
Supply and Services Section									X			
Medical Augmentation Detachment (32-Bed)												
Anesthesia Service Section										X		
ICU (20 Bed)										X		
ICW (12 Bed)											X	
Specialty Clinics Section												X
Dental section												X
Microbiology Section											X	
Nutrition Care Section												X
Supply and Services Section												X

Table B-11. Notional h-hour sequence for the Role 3 hospital (continued)

Intermediate Care Ward Augmentation Detachment (60-Bed)												
ICW - A (20 Bed)										X		
ICW - B (20 Bed)											X	
ICW - C (20 Bed)												X
Nutrition Care Section										X		
Patient Administration Section										X		

Note: Table shading depicts operational capabilities

FOC	full operational capability	IOC	initial operational capability

Legend:

CMS	central materiel service	IOC	initial operational capability
FOC	full operational capability	OR	operating room
ICU	intensive care unit	ICW	Intensive care ward

SECTION II – WATER PLANNING FACTORS

B-41. This section provides planning guidance for water consumption and wastewater disposal.

B-42. Table B-12 represents water consumption planning factors for all Army units regardless of location in the AO. The data includes consumption factors for drinking, personal hygiene (brushing teeth, shaving, washing hands, and sponge bathing), food preparation, heat injury treatment, and vehicle maintenance.

Table B-12. Water consumption water planning factors

Conditions	***Gallons required per day***
Hot and temperate (sustaining)	2.1 per person
Cold (sustaining)	1.9 per person

B-43. Table B-13 provides estimated water planning factors that are unique to Role 3 hospitals. The estimated water requirement for the hospital center, including the field hospital (32-bed) and augmentation detachments, can be determined by the data in table B-13. The table excludes Department of the Army water planning factors common to all Army units.

Table B-13. Hospital water planning factors

Activity	***Gallons required per day***
Patient care	
Bed bath	2.8 per bed patient
Bedpan wash	1.50 per bed
Handwashing	2.00 per bed
Laboratory test	0.20 per bed
X-ray	0.2 per bed
Surgical	
Scrub	8.00 per case
Instrument rinse	2.00 per case
Instrument cleaning	7.00 per unit
Sterilizer	45.00 per sterilizer
Surgical instrument cleaning total	50.5 per case
Operating room clean-up	3.00 per case
Hospital laundry and bath	
Shower (3 showers per week for infectious control)	6 per ambulatory patient
Shower (1 standard and 1 expedient per week)	6 per staff
Hospital linen (2 changes of uniform per week)	3 to 6 per patient and nonmedical staff

Table B-13. Hospital water planning factors (continued)

Activity	*Gallons required per day*
Hospital linen (3 changes of uniform per week)	3 to 6 per medical staff
Food preparation	
Medical nutritional supplement (beverages, soups, and other items)	0.69 per meal
	9.9 per pack
Food preparation	1.00 per meal
Food preparation ice (hot climate)	6 per person
Food preparation ice (temperate and cold climate)	2 per person

SHOWERS

B-44. The Office of The Surgeon General recommends, from a health maintenance perspective, a minimum of one shower and one change of uniform per Soldier per week. While this meets the minimum health standard requirements, from a morale standpoint, the Army goal is one standard shower and one expedient shower per week with two changes of uniform. The central hygiene and laundry planning factors are based on these two showers and 15 pounds of laundry per Soldier per week.

B-45. Centralized hygiene, shower, and laundry water is required by theater quartermaster elements to provide individual Soldier laundry and shower field services. Water for centralized hygiene, such as field showers, can be disinfected nonpotable fresh water when approved by PVNTMED personnel. Water for laundry services can be nonpotable fresh water. Water used for personal hygiene will be potable water only. The health threat may impact the water quality standards and limit the use of nonpotable water for field services.

WASTEWATER AND SOLID WASTE PLANNING FACTORS

B-46. The hospital should plan for all patient and staff water and all laundry water requirements to become wastewater. Solid waste calculation (estimated): Total patients (beds) x 15 pounds = total patient solid waste per day; staff x 12.5 pounds = total staff solid waste per day. Hospital infectious waste planning factors (estimated): pounds (1 cubic foot) of infectious waste generated per bed per day.

SECTION III – MEDICAL MATERIAL CONSUMPTION AND REPLENISHMENT

B-47. This section provides planning guidance for the consumption and replenishment and reference publications to assist in planning operations.

CLASSES OF SUPPLY PLANNING FACTORS

B-48. Information on available operational rations and menu planning in an AO is available in ATP 4-41. Menu planning should be coordinated with the theater Class I (subsistence) manager and the designated theater dietitian to ensure the availability of the ration mix needed to support medical requirements. At a minimum, a 21-day basic load of medical nutritional supplements should be deployed until the logistical system is fully capable of Class I support.

B-49. All Soldiers should deploy with at least a 30-day supply of personal-demand items. If exchange support is not readily available or cannot be established, health and comfort items are packaged and issued as a health and comfort pack. AR 710-2 provides guidance on planning and requisition of these items. Adjustments in quantity or selection of items in the health and comfort pack should be submitted to the theater Class I manager. The issue of health and comfort packs will cease when exchange facilities are available. Table B-14 on page 167 provides planning factors for several classes of supply (minus Class VIII) common in a hospital center. For additional information on sustainment, refer to ADP 4-0 and FM 4-0.

Table B-14. Classes of supply (Classes I through IV and VI) factor rates

Class of supply	*Planning factor*
Class I—Subsistence	4.03 pounds per person per day
Class II—General Support Items	3.67 pounds per person per day
Class III—Petroleum, Oils, Lubricants	53.70 pounds per person per day (bulk) 0.59 pounds per person per day (packaged)
Class IV—Construction Materials	8.500 pounds per person per day (includes 4.0 barrier materiel and 4.5 base construction)
Class VI—Personal Demand Items	3.20 pounds per person per day

CLASS VIIIA PLANNING FACTORS

B-50. Table B-15 depicts planning factors for determining Class VIII medical materiel supply support requirements and lists the Class VIII medical materiel planning factor for each role of care and illustrates the consumption computation for the WIA patient category. These include the computation of MEDLOG support and transportation requirements during early entry operations. Medical resupply sets and preconfigured push-packages are the primary means of resupply within the BCT prior to the establishment of line-item requisitioning. Demand history, casualty estimates, and specialty sets are used when basic mission requirements become more definitive. Refer to ATP 4-02.55 and ATP 4-02.1 for additional information on support planning.

Table B-15. Class VIII planning factors

Roles of care	*Wounded in action planning factor as pounds per wounded in action hospital admission*		*Disease and-nonbattle injuries planning factor as pounds per disease and nonbattle injury hospital admission*		*Blister planning factor as pounds per blister hospital admission*		*Nerve planning factor as pounds per nerve hospital admission*	
	Percentage	Pounds	Percentage	Pounds	Percentage	Pounds	Percentage	Pounds
Roles 1 and 2	12%	57	22%	27	7%	3	6%	7
Role 3	88%	420	78%	95	93%	33	94%	103
Total	100%	477	100%	122	100%	36	100%	110
Note. Population supported items planning factor = 0.19 pounds per Soldier per day (such as sunscreen, foot powder, and other items as provided under Common Table of Allowance 8-100).								

Note. The percentages and information presented in table B-15 are provided as a guide and are not intended as a substitute for more specific data.

B-51. Pounds per Soldier per day and pounds per wounded are planning factors used by medical logisticians when planning for Class VIII medical materiel support and transportation requirements. The patient estimate (derived from the casualty estimate) is the basis for applying these computations. The Class VIII medical materiel planning factors were developed using generic patient streams that are intended to include various types of patients.

CLASS VIIIB BLOOD PLANNING FACTORS

B-52. This section provides planning factors and references for planning blood requirements. Planners should update the planning factors for their AO.

MANAGEMENT AND PLANNING OF BLOOD REQUIREMENTS

B-53. The management and distribution of blood in the AO is a combined effort of Joint Blood Program Officer, medical detachment blood support, and medical providers. In the long-term and in a mature AO, blood management is based on resupply from the CONUS blood donor base, using a combination of liquid and frozen blood products. Each hospital stored a combination of liquid and frozen blood products of various groups and types.

LIQUID BLOOD PRODUCTS

B-54. Liquid blood products enter the AO through the U.S. Air Force Blood Transshipment Centers for further distribution to the Army medical detachment (blood support) located with the MMB.

B-55. The medical detachment (blood support) provides collection, manufacturing, storage, and distribution of blood and blood products to AO MTFs. The detachment is resupplied from a supporting U.S. Air Force Blood Transshipment Center. The detachment commander may also serve as the area joint blood program officer if a DOD Area Joint Blood Program Officer is not available.

B-56. Blood collection in the AO is governed by AO policy but normally is done to provide WB or apheresis platelets for emergency situations. Limited testing of blood drawn in the AO is done to minimize danger to recipients.

B-57. Blood shipped into the AO will be liquid RBC and fresh frozen plasma and, possibly, frozen platelets. Subject to availability, RBC shipped from CONUS are packed with the unit group for type distribution. For additional information on blood planning and products refer to TM 8-227-12/NAVMED P-6530/AFH 44-152_IP. Blood planning factors are depicted in table B-16.

Table B-16. Blood planning factors

Blood Product Therapy	***Planning Factors***	***Role 3 Storage Capacities***
Whole blood (WB) or whole blood equivalent (WBE)	8 units per wounded, ill, and injured (WII) requiring blood (see note 2)	420 units of whole blood of both Rh positive and negative blood types.
Red Blood Cells	8 units per WII requiring blood	480 units of Groups A, B, and O liquid red blood cells of both rhesus (Rh) positive and negative blood types.
Fresh Frozen Plasma	8 units per WII requiring blood	50-100 units of Groups A, B, O, and AB fresh frozen plasma depending on how individual plasma units are packaged.
Platelets	1.6 units per WII requiring blood	Five units of Groups A, B, O, and AB platelets of both Rh positive and negative blood types.
Cryoprecipitate	1.6 units per WII requiring blood	50-100 units of Groups A, B, O, and AB cryoprecipitate depending on how individual cryoprecipitate units are packaged.

Notes:
1. The blood planning factors are for blood product utilization across all roles of care in a deployed environment.
2. For planning purposes, each WIA requiring blood will require 8 units of WB or 8 WBE, not both.
3. The use of low titer group O WB should be prioritized to the greatest extent possible.
4. When WB supply is limited, prioritize WB distribution to roles of care closest to the point of injury and substitute WB with component therapy to approximate a WBE.

One whole blood equivalent is composed of: 1 unit of Red Blood Cells, 1 unit of Fresh Frozen Plasma, 0.2 units of Platelets, and 0.2 units of Cryoprecipitate.

Legend

Rh	rhesus	WBE	whole blood equivalent
WB	whole blood	WII	wounded, ill, and injured

B-58. The expected admission rates per day are critical in computing initial blood requirements. These rates, along with the above blood planning factors, provide the AHS planner with an initial estimate of daily blood requirements. Table B-17 on page 169 provides a sample calculation for initial blood requirements.

Table B-17. Sample calculation for initial blood requirements

Wounded in action (WIA) = provided by G-1 (S-1) (personnel officer) casualty estimate
Blood planning estimate = 20% of WIA will require blood transfusion
Medical planners Tool Kit may also be used to generate a blood estimate using planning factor of 8 whole blood (WB)/ whole blood equivalent (WBE).
Blood planning factor = 8 units of whole blood or whole blood equivalents per WIA requiring blood
Formula
(WIA x blood planning estimate x blood planning factor) = WB **or** WBE required

Example 1 (100 WIA)
100 x 20% x 8 = 160 units of WB

or

100 x 20% x 8 = 160 units of Red Blood Cells, 160 units of Fresh Frozen Plasma, and 32 units of Platelets, and 32 units of Cryoprecipitate

Example 2 (1,000 WIA)
1,000 x 20% x 8 = 1,600 units of WB

or

1,000 x 20% x 8 = 1,600 units of Red Blood Cells, 1,600 units of Fresh Frozen Plasma, and 320 units of Platelets, and 320 units of Cryoprecipitate

Example 3 (10,000 WIA)
10,000 x 20% x 8 = 16,000 units of WB

or

10,000 x 20% x 8 = 16,000 units of Red Blood Cells, 16,000 units of Fresh Frozen Plasma, and 3,200 units of Platelets, and 3,200 units of Cryoprecipitate

Legend:

G-1 (S-1)	personnel officer	WBE	whole blood equivalent
WB	whole blood	WIA	wounded in action

SAMPLE

OXYGEN PLANNING FACTORS

B-59. Table B-18 below and table B-19 on page 170 provide estimated planning factors and conversion factors for oxygen use in the facility. It is important to understand that the below oxygen factors were based on medical treatment provided in combat support hospitals and hospital centers over the last several years. However, there is research that suggests that providing severely WII Soldiers too much oxygen is not necessary and, in some cases, even harmful. Therefore, these planning factors should be used to determine how much oxygen to have on hand, a MEDLOG estimate, not a required or recommended treatment protocol for oxygen therapy.

Table B-18. Oxygen planning factors

Location	***Usage***
Operating room table	2.8 liters per minute during operational time
Intensive care unit bed (ventilator)	4.5 liters per minute for 17 percent of the total intensive care unit beds (patients on resuscitator or ventilator)
Intensive care unit bed (nasal cannula)	3.1 liters per minute for 17 percent of the total intensive care unit beds (patients on nasal cannula or mask)
Miscellaneous requirements	An additional factor of 10 percent is applied to the total of operating room and intensive care unit requirements to account for oxygen requirements in other areas of the hospital

Table B-19. Oxygen conversion factors

Oxygen quantity	*Conversion factor*
1 gallon (gaseous oxygen)	0.1333 cubic feet
95 gallons “D” cylinder	12.7 cubic feet
1,650 gallons “H” cylinder	220 cubic feet
1 cubic foot (gaseous oxygen)	28.317 liters
95 gallons “D” cylinder	359.63 liters
1,650 gallons “H” cylinder	6,229.74 liters

B-60. The capability to fill medical oxygen tanks at or above the rate of consumption in a Role 3 hospital should be an important planning factor. Medical planners and hospital leaders should include large-scale combat operations centric courses of action that address the restriction of organic medical oxygen production due to maintenance of equipment, demand of medical oxygen exceeding the capabilities of organic medical oxygen producing equipment, or organic equipment has been destroyed. Medical planners and hospital leaders should ensure oxygen as a planning factor is included in their TACSOP. The TACSOP should include factors such as—

- Being required, through the orders process, to provide medical oxygen to medical units on an area basis
- Medical oxygen cylinder distribution and reconstitution.
- Resupply of medical oxygen and cylinders through military sustainment, UAPs, or HN channels.
- Are UAP and HN oxygen cylinders safe and compatible with organic medical oxygen producing equipment.

SECTION IV – HOSPITALIZATION STATISTICS, REPORTS, AND SITUATIONAL AWARENESS

B-61. Hospitalization statistics and reports are beneficial for future hospitalization course of action development. Role 3 hospitals should consistently request updates from their assigned/attached MEDBDE to ensure they are capturing the proper statistical data and reporting relevant and accurate information. Role 3 hospital leaders should establish robust statistical and reporting areas in their TACSOP.

HOSPITALIZATION STATISTICS

B-62. Army hospitalization statistical data complements and reinforces science and technology efforts conducted at home station that may result in improved clinical practice guidelines and improved Role 3 hospitalization. The list below is not all inclusive, but the Role 3 should consistently request updates from their assigned/attached MEDBDE to ensure they are capturing the proper statistical data.

- Combat wounded, non-combat injuries, and DNBI admissions.
- Length of stay.
- Inpatient mortality rates.
- Bed utilization rates (to include percentage of available beds and number of contaminated beds).
- Incidents (surgical, medical, medication, and nonmedication related).
- Patient administration (health record update status).
- Number and type of ancillary services provided.
- Class I (to include water), II, III, and V requirements and consumption rates.
- Class IV requirements.
- Class VIIIA and Class VIIIB requirements and consumption rates.
- Medical regulating (patient evacuation rates).

HOSPITALIZATION REPORTS

B-63. Accurate hospitalization reports from each Role 3 hospital impact a balanced hospitalization bed status throughout the theater. They also provide situational awareness regarding classes of supply, to include

Class VIIIA and Class VIIIB status and sustainment. Not all inclusive, listed below are several key reports every Role 3 hospital should use. Hospital leaders should request reporting requirements from their assigned/attached MEDBDE to ensure they are reporting accurately and consistently. For additional information on Army messages and reports, refer to FM 6-99.

BED AVAILABILITY AND ELEMENT STATUS

B-64. The bed availability and element status is used to report bed availability and medical treatment element status when the medical situation report record message is not or cannot be used. See table B-20 for an example of a bed availability and element status.

Table B-20. Bed availability and element status

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	ELEMENT _____ (name or designator of the reporting element).
LINE 4	TOTAL OPERATIONAL _____ (total number of beds that are operational)
LINE 5	MEDICAL OPERATIONAL _____ (number of medical [MM] beds operational)
LINE 6	PSYCHIATRIC OPERATIONAL _____ (number of psychiatric [MP] beds operational)
LINE 7	GENERAL OPERATIONAL _____ (number of general surgeries [SS] beds operational)
LINE 8	ORTHOPEDIC OPERATIONAL _____ (number of orthopedic [SO] beds operational)
LINE 9	BURN OPERATIONAL _____ (number of burn [SB] beds operational)
LINE 10	SPINAL CORD OPERATIONAL _____ (number of spinal cord [SC] injury beds operational)
LINE 11	OB/GYN OPERATIONAL _____ (number of OB/GYN [SG] beds operational)
LINE 12	PEDIATRIC OPERATIONAL _____ (number of pediatric [MC] beds operational)
LINE 13	NEURO OPERATIONAL _____ (number of neurosurgery [SSN] beds operational)
LINE 14	ORAL OPERATIONAL _____ (number of oral/maxillofacial [SSM] beds operational)
LINE 15	OPHTHALMOLOGY OPERATIONAL ___ (number of ophthalmology [SSO] beds operational
LINE 16	THORACIC OPERATIONAL _____ (number of thoracic surgery [SSC] beds operational)
**Use lines 13 through 16 to report the number of operational beds in selected surgical subspecialties. Include these numbers in line 7.	
LINE 17	AVAILABLE TOTAL _____ (total number of available beds [BEDAVAIL])
LINE 18	AVAILABLE MEDICAL _____ (number of medical [MM] beds available)
LINE 19	AVAILABLE PSYCHIATRIC _____ (number of psychiatric [MP] beds available)
LINE 20	AVAILABLE GENERAL _____ (number of general surgeries [SS] beds available)
LINE 21	AVAILABLE ORTHOPEDIC _____ (number of orthopedic [SO] beds available)
LINE 22	AVAILABLE BURN _____ (number of burn [SB] beds available)
LINE 23	AVAILABLE SPINAL CORD _____ (number of spinal cord [SC] injury beds available)
LINE 24	AVAILABLE OB/GYN _____ (number of OB/GYN [SG] beds available)
LINE 25	AVAILABLE PEDIATRIC _____(number of pediatric [MC] beds available)
**Use lines 17 through 25 to report the number of available beds for patients at the reporting medical element.	
LINE 26	AVAILABLE NEURO _____(number of neurosurgery [SSN] beds available)
LINE 27	AVAILABLE ORAL _____(number of oral/maxillofacial [SSM] beds available)
LINE 28	AVAILABLE OPHTHALMOLOGY _____(number of ophthalmology [SSO] beds available)
LINE 29	AVAILABLE THORACIC _____(number of thoracic surgery [SSC] beds available)
**Use lines 26 through 29 to report the number of operational beds in selected surgical subspecialties. Include these numbers in line.	

SAMPLE

Table B-20. Bed availability and element status (continued)

LINE 30	SUITES _____(number of operating suites that are operational)
LINE 31	BACKLOG _____(number of hours of surgical backlog)
LINE 32	OVERFLOW _____(number of overflow/holding beds available)
** Use lines 30 through 32 to provide information concerning medical element status and workload. **Repeat lines 3 through 32 to report multiple mission/mission data. Assign sequential lines to succeeding iterations. For example, first iteration is 3 through 32; second iteration is 3a through 32a; third iteration is 3b through 32b; and so on.	
LINE 33	NARRATIVE _____(free text for additional information required report clarification)
LINE 34	AUTHENTICATION _____(report authentication)

Legend:

BEDAVAIL	bed availability and element status	SC	spinal cord
DTG	date-time group	SG	obstetrics and gynecology
MC	pediatric	SO	orthopedic
MM	medical	SS	surgery
MP	psychiatric	SSC	thoracic
MTE	medical treatment element	SSN	neurosurgery
NEURO	neurosurgery	SSM	oral/maxillofacial
OB/GYN	obstetrics/gynecology	SSO	ophthalmology
SB	burn		

BED DESIGNATIONS

B-65. The bed designations is used to report bed availability and medical treatment element status when the medical regulating report record message cannot be used. See table B-21 on page 173 for an example of a bed designation.

Table B-21. Bed designation

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	EVAC FROM _____ (name or designator of the reporting element)
LINE 4	PICKUP _____ (UTM or six-digit grid coordinate with MGRS grid zone designator of pickup or location of MTE from which evacuated. Report only if other than fixed-wing AE is used and transporting agency may not know the pickup location)
LINE 5	EVAC TO _____ (name or designator of destination MTE)
LINE 6	DELIVERY _____ (delivery location or location of destination MTE, UTM or six-digit grid coordinate with MGRS grid zone designator)
LINE 7	NO. MEDICAL (MM) _____ (number of MM beds assigned to patients at destination MTE)
LINE 8	NO. PSYCHIATRIC (MP) _____ (number of MP beds assigned to patients at destination MTE)
LINE 9	NO. SURGERY (SS) _____ (number of SS beds assigned to patients at destination MTE)
LINE 10	NO. ORTHOPEDIC (SO) ____ (number of SO beds assigned to patients at destination MTE)
LINE 11	NO. BURN (SB) ____ (number of SB beds assigned to patients at destination MTE)
LINE 12	NO. SPINAL CORD (SC) ____ (number of SC beds assigned to patients at destination MTE)
LINE 13	NO. OB/GYN (SG) ____ (number of SG beds assigned to patients at destination MTE)
LINE 14	NO. PEDIATRIC (MC) ____ (number of MC beds assigned to patients at destination MTE)
LINE 15	TOTAL ____ (total number of beds assigned to patients at destination MTE)
LINE 16	NO. NEURO (SSN) ____ (number of SSN beds assigned to patients at destination MTE)
LINE 17	NO. ORAL (SSM) ____ (number of SSM beds assigned to patients at destination MTE)
LINE 18	NO. OPHTHALMOLOGY (SSO) ____ (number of SSO beds assigned to patients at destination MTE)
LINE 19	NO. THORACIC (SSC) ____ (number of SSC beds assigned to patients at destination MTE)
**Use lines 16 through 19 to report the number of beds assigned to patients in selected surgical subspecialties. Include these numbers in line 9.	
LINE 20	CATEGORY ____ (number of special category patients [other than active-duty U.S. armed forces] assigned beds at destination MTE by medical specialty category [example: two French nationals in category SO. The number of patients reported is also included in lines 7 through 15])
**Repeat lines 3 through 20 to report multiple missions/mission data. Assign sequential lines to succeeding iterations. For example, first iteration is 3 through 20; second iteration is 3a through 20a; third iteration is 3b through 20b; and so on.	
LINE 21	NARRATIVE _____(free text for additional information required report clarification)
LINE 22	AUTHENTICATION _____(report authentication)

Legend:

AE	aeromedical evacuation	SG	obstetrics/gynecology
DTG	date-time group	SO	orthopedic
EVAC	evacuate	SS	surgery
MC	pediatric	SSC	thoracic
MGRS	military grid reference system	SSM	maxillofacial
MM	medical	SSN	neurology
MP	psychiatric	SSO	ophthalmology
MTE	medical treatment element	U.S.	United States
NO.	number	UTM	universal transverse Mercator
SB	burn		
SC	spinal cord		

DRAFT

BED REQUEST

B-66. The bed request is used to request beds for patients when the medical regulating report cannot be used. See table B-22 on page 174 for an example of a bed request.

Table B-22. Bed request

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	REQUEST _____ (name or designator of the requesting element with patients requiring beds)
LINE 4	LOCATION _____ (UTM or six-digit grid coordinate with MGRS grid zone designator. Report only on first report or upon relocation.)
LINE 5	PATIENTS ____ HYPHEN _____ TOTAL ____ (number of litter [after PATIENTS], ambulatory [after HYPHEN], and all [after TOTAL] PATIENTS requiring beds)
LINE 6	MEDICAL (MM) ____ HYPHEN ____ TOTAL ____ (number of litter [after MM], ambulatory [after HYPHEN], and all [after TOTAL] MM requiring beds)
LINE 7	PSYCHIATRIC (MP) ____ HYPHEN ____ TOTAL ____ (number of litter [after MP], ambulatory [after HYPHEN], and all [after TOTAL] MP requiring beds)
LINE 8	SURGERY (SS) ____ HYPHEN ____ TOTAL ____ (number of litter [after SS], ambulatory [after HYPHEN], and all [after TOTAL] SS requiring beds)
LINE 9	ORTHOPEDIC (SO) ____ HYPHEN ____ TOTAL ____ (number of litter [after SO], ambulatory [after HYPHEN], and all [after TOTAL] SO requiring beds)
LINE 10	BURN (SB) ____ HYPHEN ____ TOTAL ____ (number of litter [after SB], ambulatory [after HYPHEN], and all [after TOTAL] SB requiring beds)
LINE 11	SPINAL CORD (SC) ____ HYPHEN _____ TOTAL _____ (number of litter [after SC], ambulatory [after HYPHEN], and all [after TOTAL] SC requiring beds)
LINE 12	OB/GYN (SG) _____ HYPHEN _____ TOTAL _____ (number of litter [after SG], ambulatory [after HYPHEN], and all [after TOTAL] SG requiring beds)
LINE 13	PEDIATRIC (MC) _____ HYPHEN _____ TOTAL _____ (number of litter [after MC], ambulatory [after HYPHEN], and all [after TOTAL] MC requiring beds)
LINE 14	NEURO (SSN) _____ HYPHEN _____ TOTAL _____ (number of litter [after SSN], ambulatory [after HYPHEN], and all [after TOTAL] SSN requiring beds)
LINE 15	MAXILLO (SSM) _____ HYPHEN _____ TOTAL _____ (number of litter [after SSM], ambulatory [after HYPHEN], and all [after TOTAL] SSM requiring beds)
LINE 16	OPHTHAL (SSO) _____ HYPHEN _____ TOTAL _____ (number of litter [after SSO], ambulatory [after HYPHEN], and all [after TOTAL] SSO requiring beds)
LINE 17	THORACIC (SSC) _____ HYPHEN _____ TOTAL _____ (number of litter [after SSC], ambulatory [after HYPHEN], and all [after TOTAL] SSC requiring beds)
LINE 18	CATEGORY _____ (number of special category patients other than active duty U.S. armed forces assigned beds at destination MTE by medical specialty category)
LINE 19	PICKUP _____ (pickup location in UTM or six-digit grid coordinate with MGRS grid zone designator)
LINE 20	ONLOAD _____ (unit making report) forces] assigned beds at destination MTE by medical specialty category [example: two French nationals in category SO. The number of patients reported is also included in lines 7 through 15])
LINE 21	EQUIPMENT _____ (special medical equipment required)
LINE 22	NARRATIVE _____ (free text for additional information required report clarification)
LINE 23	AUTHENTICATION _____ (report authentication)

Legend:

DTG	date-time group	SO	orthopedic
MC	pediatric	SS	surgery
MGRS	military grid reference system	SSC	thoracic
MM	medical	SSM	maxillofacial
MP	psychiatric	SSN	neurology
MTE	medical treatment element	SSO	ophthalmology
SB	burn	U.S.	United States
SC	spinal cord	UTM	universal transverse Mercator
SG	obstetrics/gynecology		

SAMPLE

DAILY BLOOD REPORT

B-67. The daily blood report is used to convey unit blood supply to medical staff and higher headquarters. See table B-23 on page 175 for an example of a daily blood report.

Table B-23. Daily blood report

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	LOCATION _____ (UTM or six-digit grid coordinate with MGRS grid zone designator. Report only on first report or upon relocation.)
LINE 4	NO. OH/BLOOD PRODUCT/_____ (total number of blood products on hand by blood groups at the end of the reporting period)
LINE 5	NO. REQUIRED/BLOOD PRODUCT ____ (total number of blood products required by DTG)
LINE 6	EXPIRE/BLOOD PRODUCT/BLOOD GRP _____ (estimated total number of blood products by blood groups to expire within the next 7 days)
LINE 7	NO. REQUESTED/BLOOD PRODUCT/BLOOD GRP _____ (estimated blood supply by quantity and groups requested within the next 7 days)
LINE 8	CDR'S ASSESSMENT _____ (commander's assessment)
LINE 9	NARRATIVE _____ (free text for additional information required report clarification)
LINE 10	AUTHENTICATION _____ (report authentication)
Legend:	
CDR commander	NO. number
DTG date-time group	OH on hand
GRP group	UTM universal transverse Mercator
MGRS military grid reference system	

MEDICAL SITUATION REPORT

B-68. The medical situation report is used to convey a quick, consolidated medical status report as a snapshot instead of a full report. See table B-24 for an example of a medical situation report.

Table B-24. Medical situation report

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	LOCATION _____ (UTM or six-digit grid coordinate with MGRS grid zone designator. Report only on first report or upon relocation.)
LINE 4	STATUS _____ (number of operational cots, unoccupied cots, or number of cots uploaded)
LINE 5	PATIENTS _____ (number of patients)
LINE 6	PROJECTED LOCATIONS _____ (anticipated operations in the next 24 hours; anticipated opening and closing times at new locations)
LINE 7	COMBAT HEALTH LOGISTICS ____ (number of days of CL VIII & blood OH)
LINE 8	EVACUATION ASSETS _____ (availability and operational capacity of evacuation assets)
LINE 9	NARRATIVE _____ (free text for additional information required report clarification)
LINE 10	AUTHENTICATION _____ (report authentication)
Legend:	
CL class	MGRS military grid reference system
OH on hand	UTM universal transverse Mercator
DTG date-time group	

MEDICAL STATUS REPORT

B-69. The medical status report is used to provide status on hospitalization, incidence or occurrence of disease, and unresolved problems or items of significant interest having impact upon the overall medical capability or health of the command. See table B-25 on page 176 for an example of a medical status report.

SAMPLE

Table B-25. Medical status report

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	TYPE _____ (type of medical status report: ASHORE REPORT or AFLOAT REPORT)
LINE 4	COMMAND _____ (name of designator of reporting command or facility if ashore; ship name, type, and hull number)
LINE 5	POC _____ (name of medical point of contact)
LINE 6	AVAILABLE _____ (number of cots or hospital beds available)
LINE 7	OCCUPIED _____ (number of cots or hospital beds occupied)
LINE 8	OVERFLOW _____ (number of cots or holding beds occupied)
LINE 9	FULL _____ (number of cots or holding beds occupied)
LINE 10	WAITING _____ (number of patients awaiting evacuation out from command's area of responsibility since last report)
LINE 11	MEDLOG _____ (number of days of Class VIII OH)
LINE 12	PROBLEMS _____ (unresolved problems and anticipated problems or issues affecting reporting command)
LINE 13	ASSESSMENT _____ (commanding officer's assessment of operational capabilities and ability to continue medical support)
**Report lines 3 through 13 as a group when reporting the medical status of more than one command, facility, or ship.	
LINE 14	NARRATIVE _____ (free text for additional information required report clarification)
LINE 15	AUTHENTICATION _____ (report authentication)
Legend:	
DTG date-time group	OH on hand
MEDLOG medical logistics	POC point of contact

SAMPLE

DIRECT SUPPORT UNIT REPORT

B-70. The direct support unit report is used by sustainment, medical logistics officers, and commanders to report an assessment of the availability and capability of sustaining current and future unit operations. This report can be executed as an estimate if required. Each class of supply requires a narrative that includes line number, quantity on hand, and earliest time on station of resupply of critically short supplies or equipment. See table B-26 on page 177 for an example of a direct support unit report.

Table B-26. Direct support unit report

LINE 1	DATE AND TIME (DTG)
LINE 2	UNIT _____ (unit making report)
LINE 3	CDR'S ASSESSMENT _____ (commander's assessment)
LINE 4	CLASS I _____ (class I narrative)
LINE 5	CLASS II _____ (class II narrative)
LINE 6	CLASS III _____ (class III narrative)
LINE 7	CLASS IV _____ (class IV narrative)
LINE 8	CLASS V _____ (class V narrative)
LINE 9	CLASS VI _____ (class VI narrative)
LINE 10	CLASS VII _____ (class VII narrative)
LINE 11	CLASS VIII _____ (class VIII narrative)
LINE 12	CLASS IX _____ (class IX narrative [include maintenance status])
LINE 13	WATER _____ (class I water)
LINE 14	TRANSPORTATION _____ (transportation assets available)
LINE 15	NARRATIVE _____ (free text for additional information required report clarification)
LINE 16	AUTHENTICATION _____ (report authentication)
Legend: CDR commander DTG date-time group	

SAMPLE

LOGISTICS STATUS REPORT

B-71. The logistics status report is used to report logistics problems, required logistic assistance, reallocation, and recommended or intended courses of action. See table B-27 on page 178 for an example of a logistics status report.

Table B-27. Logistics status report

LINE 0	UNIT, DATE/TIME, LOCATION, HEADCOUNT _____(Reporting unit, DTG, location, and headcount)
LINE 1	CL I A MRE (Each), B UGR (Module), C Water, Bulk (Water, Bottled (each), E Ice (Pounds) _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 2	CLASS II _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 3	CL III A JP8/F24, Bulk (Gallons), B DF2, Bulk (Gallons), CLIII (Package), C 15W40 (Quart), D Dextron III (Quart) _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 4	CL IV A Short Pickets (Each) B Long Pickets (Each), C Barbed Wire (Roll), D Concertina Wire (Roll), E Sandbags (Each) _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 5	CL V A 5.56 Ball, B 5.56 Link, C 7.62 Link, D 50 Cal, E 40mm Grenade M203, F 40mm Link MK19 _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 6	CL VI _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 7	CL VII Shoot, A M4, B M249, M240B, D M2, E M203, F MK-19; CL VII Move, G JL 1V, H M1083, M1095; _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 8	CL VIII _____(combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 9	CL IX _____ (combat load, quantity on hand, required next 24 hours, 48 hours, 72 hours, status % [R/A/G/B], remarks)
LINE 10	CL X _____ (combat load, quantity on hand, required next 24 hours, :48 hours, 72 hours, status % [R/A/G/B], remarks)

Legend:

CL	classification	MRE	meal, ready to eat
DTG	date-time group	R/A/G/B	red/amber/green/black
JP	jet propellant	UGR	unitized group ration
mm	millimeter		

SAMPLE

DAILY DISPOSITION LOG

B-72. 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 table B-28 on page 179.

Table B-28. Example daily disposition log

Daily Disposition Log *Date/Time Group: 160230LJAN94*				
Name	***Grade***	***Unit/Nation***	***WII Status***	***Disposition Time***
JOHANNIK, L. M.	E8	3 ID/U.S.	GSW, L Leg/WIA	R2MTF/0900L
MULLANEY, M	E9	2/327 INF/101ASSLT/U.S.	Laceration L Hand/WIA	R1MTF/1007L
NELSON, C.	O5	C/426 BSB/101ASSLT/U.S.	Head Injury/WIA	R2MTF/1056L
CHAN, J.	E9	82 ABN/U.S.	Uncontrolled Vomiting/BW/WIA	R2MTF/1234L
GAVIN, J.	O6	505PIR/82ABN/U.S.	COSR/DNBI	R2MTF/1414L
CONRAD, J.		EPW	Frag wound to head/DWRIA	MA/1459L
HOLLEIN, J.	O3	2 CHEMICAL BN	Chemical Injury Systemic/WIA	R3MTF/1634L
WINTERS, R.	O4	506PIR/101ABN/U.S.	Puncture Wound R Ankle/DNBI	R1MTF/1834L

Legend:

AASLT	air assault	INF	infantry
ABN	airborne	L	left
BN	battalion	MA	mortuary affairs
BSB	brigade support battalion	MTF	medical treatment facility
BW	biological warfare agent	PIR	parachute infantry regiment
COSR	combat and operations stress reaction	R	right
DNBI	disease nonbattle injury	R1	Role 1
DWRIA	died of wounds received in action	R2	Role 2
EPW	enemy prisoner of war	R3	Role 3
FRAG	fragmentary	U.S.	United States
GSW	gunshot wound	WIA	wounded in action
ID	infantry division		

SAMPLE

B-73. 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.

B-74. 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

B-75. 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. Table B-29 on page 180 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.

Table B-29. Example of a patient summary report

Patient Summary Report *DTG: 160345LMAR98*						
FROM: 160001LMAR98 TO: 162359LMAR98						
PATIENTS		*Wounded*	*Illness*	*Injury*	**NP*	*TOTAL*
ALPHA	U.S.	134	175	43	22	374
BRAVO	ALLIED	25	52	26	12	115
CHARLIE	EPW/UEB	70	220	12	44	346
TOTALS		**229**	**447**	**81**	**78**	**835**
DISPOSITIONS						
DELTA	PH COT (FILLED)		127	50		177
ECHO	MCC (FILLED				40	40
FOXTROT	ICW BED (FILLED)	30	12	10		52
GOLF	ICU BED (FILLED)	52	2	3		57
HOTEL	RTD	45	137	42	27	251
INDIA	EVACUATED BY GROUND	147	267	42	19	475
JULIET	EVACUATED BY AIR	24				24
KILO	DWRIA EN ROUTE	12		3		15
LIMA	DWRIA IN MTF	39	33	3		75

Note. This report, when completed, will be classified in accordance with local command policy – encode/encrypt for transmission.
* Neuropsychiatric stress-related patients should be reported in this category.

Legend:

DTG	date-time group	MTF	medical treatment facility
DWRIA	died of wounds received in action	NP	neuropsychiatric
EPW	enemy prisoner of war	PH	patient hold
ICU	intermediate care ward	RTD	return to duty
ICW	Intensive care unit	UEB	unprivileged enemy belligerent
MCC	minimal care cot	U.S.	United States

SAMPLE

ROLE 3 HOSPITALIZATION SITUATIONAL AWARENESS AND DECISIONMAKING

B-76. Time is crucial during large-scale combat operations. Army hospitalization is modular in nature and can be configured multiple ways to support the range of military operations. As a part of their unit TACSOPs, medical planners and hospital leaders should develop quick techniques and procedures to pass information and depict the current status of Role 3 hospitalization that are not part of full reports. These situational awareness and planning tools can be as simple as using numbers to depict the Role 3 configurations and OR/bed/cot status This quick reference would be annotated on a common operational picture or on a Role 3 military graphic as numbers.

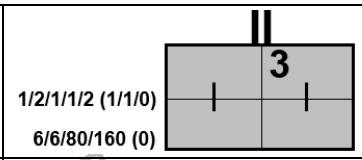
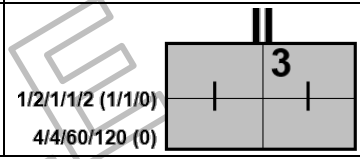
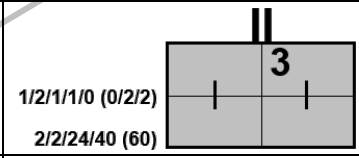
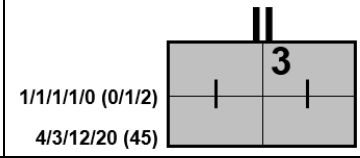
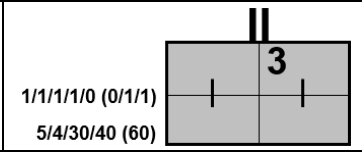
B-77. To depict the Role 3 configuration, The Role 3 hospital could use HHD/FH/SAD/MAD/ICWAD and in parentheses at the end, any further augmentation such as (head and neck teams, FRSDs, or minimal care wards (MCWs). For example, 1/2/1/1/2 (1/1/0) depicts a 240-bed hospital center composed of an HHD, two field hospitals, one SAD, one MAD, two ICWADs. It is further augmented by one head and neck team, one FRSD, and zero minimal care wards.

B-78. We use a second set of numbers to depict OR/bed/cot status as EMT/OR/ICU/ICW (MCW) This second set of number 6/6/60/180 (0) depicts a Role 3 hospital with all six triage/EMT cots and OR tables occupied, all 60 ICU beds and 180 ICW beds occupied, and has zero minimal care cots. This hospital is at full capacity with all 240 beds in use.

B-79. Another example of both numbers shows a hospital as 1/1/1/1/0 (2) (2/2/24/40 [60]). This depicts a hospital center with an HHD, one field hospital, one SAD, one MAD, zero ICWADs, and two minimal care wards. Its capacity depicts 2 available OR tables, 24 available ICU beds and 40 ICW beds, and 20 minimal

care cots empty. This concise and detailed information can quickly assist medical planners and hospital leaders in making decisions on bed or cot availability for incoming patients and what hospitals need to clear beds and cots. See table B-30 for an example of a corps Role 3 situational awareness matrix.

Table B-30. Example of a corps Role 3 situational awareness matrix

Date Time Group (DTG): _____ AUTHENTICATION: _____		
Role 3 Configuration HHD/FH/SAD/MAD/ICWAD (H&N/ FRSD/MCW)	***Role 3 OR/Bed/Cot Status EMT/OR/ICU/ICW (MCC)***	***Military Graphic Example***
Corps Role 3 Hospitals		
29th Hospital Center **Location: WA4700 1001** 1/2/1/1/2 (1/1/0)	6/6/80/160 (0)	
531st Hospital Center **Location: KY8600 1010** 1/2/1/1/2 (1/1/0)	4/4/60/120 (0)	
Division Role 3 Hospitals		
806th Hospital Center **Location: OH3700 1007** 1/2/1/1/0 (0/2/2)	2/2/24/40 (60)	
313th Hospital Center **Location: WA5060 5214** 1/1/1/1/0 (0/1/2)	4/3/12/20 (45)	
411th Hospital Center **Location: FL3000 6834** 1/1/1/1/0 (0/1/1)	5/4/30/40 (60)	
NARRATIVE: (Unit can add important information here)		

Legend:

EMT	triage/emergency medical treatment/preoperative	ICWAD	ICW augmentation detachment (60-bed)
FH	field hospital (32-bed)	MAD	medical augmentation detachment (32-bed)
FRSD	forward resuscitative and surgical detachment	MCC	minimal care cot
H&N	head and neck team	MCW	minimal care ward (40-cot)
HHD	headquarters and headquarters detachment	OR	operating room
ICU	intensive care unit (12 bed)	SAD	surgical augmentation detachment (24-bed)
ICW	intermediate care ward (20 bed)		

SAMPLE

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Appendix C

Guide for Geneva Conventions and Medical Ethics Compliance

Sources for the law armed conflict obligations of the U.S. are customary international law and treaties ratified by the United States. As such, they are part of the supreme law of the land. The U.S. is obligated to adhere to these obligations even when an opponent does not. DOD and U.S. Army policy is to conduct military operations in a manner consistent with customary international law and treaty obligations. An in-depth discussion of the provisions applicable to medical units and personnel is provided in FM 4-02 and FM 6-27/MCTP 11-10C.

GENEVA CONVENTIONS

C-1. The essential and dominant idea of the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field is that the Soldier (GWS) who has been wounded or who is sick, and for that reason is out of combat in a disabled condition, is from that moment protected. Friend or foe should be tended with the same care. From this principle, numerous obligations are imposed upon parties to a conflict.

PROTECTION AND CARE

C-2. The first paragraph of Article 12, GWS, states: "Members of the armed forces and other persons mentioned in the following Article, who are wounded or sick, shall be respected and protected in all circumstances."

C-3. The second paragraph of Article 12, GWS, provides that the wounded and sick "…shall be treated humanely and cared for by the Party to the conflict in whose power they may be, without any adverse distinction founded on sex, race, nationality, religion, political opinions, or any other similar criteria."

C-4. The only reasons which can justify priority in the order of treatment are reasons of medical urgency. This is the only justified exception to the principle of equality of treatment of the wounded.

C-5. Paragraph 5 of Article 12, GWS, provides that if we must abandon wounded or sick, we have a moral obligation to, "as far as military considerations permit," leave medical supplies and personnel to assist in their care. This provision is in no way bound up with the absolute obligation imposed by paragraph 2 of Article 12 to care for the wounded. A belligerent can never refuse to care for enemy wounded on the pretext that his adversary has abandoned them without medical personnel and equipment.

ENEMY WOUNDED AND SICK

C-6. The protections accorded the wounded and sick apply to friend and foe alike without distinction. Certain provisions of the GWS; however, specifically concern enemy wounded and sick. There are also provisions in the Geneva Convention Relative to the Treatment of Prisoners of War which, because they apply to prisoners of war generally, also apply to enemy wounded or sick:

- Article 14 of the GWS states that persons who are wounded and then captured have the status of prisoners of war, however, that wounded soldier is also a person who needs treatment. Therefore, a wounded soldier who falls into the hands of an enemy who is a Party to the GWS and the Geneva Convention Relative to the Treatment of Prisoners of War such as the U.S., will enjoy protection under both Conventions until their recovery. The GWS will take precedence over the Geneva Convention Relative to the Treatment of Prisoners of War where the two overlap.
- Article 16 of the GWS requires the recording and forwarding of information regarding enemy wounded, sick, or dead. (For disposition of detainees after hospital care, refer to JP 3-31, JP 3-33, AR 190-8 and FM 3-63).
- When intelligence indicates that large numbers of detainees may result from an operation, medical units may require reinforcement to support the anticipated additional detainee patient workload.

THE FOLLOWING PARAGRAPH IMPLEMENTS STANAG 2060 AND 2931.

DISTINCTIVE MARKINGS AND CAMOUFLAGE OF MEDICAL FACILITIES AND EVACUATION PLATFORMS

C-7. All U.S. medical facilities and units, except veterinary, display the distinctive flag of the Geneva Conventions. This flag consists of a red cross on a white background. It is displayed over the unit or facility and in other places as necessary to adequately identify the unit or facility as medical.

C-8. Camouflage of medical facilities (medical units, medical vehicles, and medical aircraft on the ground) is authorized when the lack of camouflage might compromise the tactical operation. If the failure to camouflage endangers or compromises tactical operations, the camouflage of medical facilities could be ordered by a NATO commander of at least brigade level or equivalent. Such an order is to be temporary and local in nature and is rescinded as soon as circumstances permit. It is not envisioned that large, fixed medical facilities will be camouflaged.

Note. As used in this context, camouflage means to cover up or remove the emblem. The black cross on an olive background is not a recognized emblem of the Geneva Conventions and is not authorized for use.

SELF-DEFENSE AND DEFENSE OF PATIENTS

C-9. Medical personnel may carry small arms for personal defense of themselves and defense of their patients. Self-defense of medical personnel or defense by medical personnel of their patients is always permitted. This does not mean that they may resist capture or otherwise fire on the advancing enemy. It means that if civilian or enemy military personnel are attacking and ignoring the marked medical status of medical personnel, medical transportation, or the medical unit, the medical personnel may provide self-protection. If an enemy military force merely seeks to assume control of a military medical facility or a vehicle for the purpose of inspection and without firing on it, the facility or vehicle may not resist.

C-10. As a rule, a medical unit is to be guarded by its own personnel; however, it will not lose its protected status if the guard is performed by several armed Soldiers. The military guard attached to a medical unit may use its weapons, just as armed medical personnel may, to ensure the protection of the unit. But, as in the case of medical personnel, the Soldiers may only act in a purely defensive manner and may not oppose the occupation or control of the unit by an enemy who is respecting the unit's privileged status. The status of such Soldiers is that of ordinary members of the armed forces. The mere fact of their presence with a medical unit will shelter them from attack. In case of capture, they will be prisoners of war.

ENEMY PRISONERS OF WAR, RETAINED, AND DETAINED PATIENTS

C-11. Wounded, ill and injured EPW, retained, and detained are treated and evacuated through medical channels but are physically segregated from U.S., HN, and UAP patients. The EPW, retained, and detained patient is evacuated from the combat zone as soon as their medical condition permits.

C-12. Personnel resources to guard EPW, retained, or detained patients are provided by the echelon commander. Medical personnel do not guard EPW, retained, or detained patients.

COMPLIANCE WITH THE GENEVA CONVENTIONS

C-13. As the U.S. is a signatory to the Geneva Conventions, all medical personnel should thoroughly understand the provisions that apply to AHS support operations. Violation of these Conventions can result in the loss of the protection afforded by them or prosecution. Medical personnel should inform the tactical commander of the consequences of violating the provisions of these Conventions.

C-14. The following acts are inconsistent with an individual or facility claiming protected status under the Geneva Conventions:

- Using medical personnel to staff or help secure the perimeter of nonmedical facilities, such as unit trains, logistics areas, or base clusters.

- Using medical personnel to staff any offensive-type weapons or weapons systems.
- Ordering medical personnel to engage enemy forces other than in self-defense or in the defense of patients and 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, pistols, or M249 squad automatic weapons 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.

Note. Medical personnel or nonmedical personnel assigned to medical units must not use the M249 squad automatic weapon for offensive purposes, as this violates the Geneva Conventions. Instead, they should only use the M249 as an individual defensive weapon to protect themselves or their patients when faced with imminent danger.

C-15. Possible consequences of violations described in C-14 above may include—

- Prosecution for violations of the law of armed conflict.
- Loss of protected status for the medical unit, personnel, or evacuation platforms (to include aircraft on the ground).
- Medical facilities and medical evacuation platforms subjected to attacked and destroyed by the enemy.
- Medical personnel being considered EPWs rather than retained persons when captured may not be permitted to treat fellow Soldiers.
- AHS capabilities decremented.

C-16. Other examples of violations of the Geneva Conventions include—

- 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 not recommended.
- 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, Red Crescent, or Red Crystal on a white background) or any other unlawful use of the Geneva emblem.
- Using medical vehicles marked with distinctive Geneva emblem (Red Cross, Red Crescent, or Red Crystal on a white background) for transporting nonmedical troops, equipment, and supplies.
- Using a medical vehicle as a command post.

C-17. Possible consequences of violations described in C-16 above are—

- Criminal prosecution for war crimes.
- Medical personnel being considered EPWs rather than retained persons when captured.
- Decrease AHS capabilities.

Note. The use of smoke and obscurants by medical personnel is not a violation of the Geneva Conventions (for information on the use of smoke, refer to ATP 4-02.2 and ATP 3-09.30).

MEDICAL ETHICS

C-18. The provision of health care to detainees within MTFs or other facilities (such as dispensaries located within detention or holding facilities) is a unique role within the military structure. This role is governed by rules and regulations designed to ensure the provision of health care while ensuring personal safety and maintenance of security, custody, and discipline in a detention/holding facility environment. Health care personnel should ensure that their actions, both on- and off-duty, do not undermine their ability to function effectively among detainees or compromise established health care, safety, security, and custody guidelines.

C-19. There are ethical considerations for the medical treatment of detainees. For more information on medical ethics, refer to FM 4-02. Health care personnel (particularly physicians) perform their duties consistent with the following basic principles:

- Duty in all matters affecting the physical and behavioral health off detainees to perform, encourage, and support, directly and indirectly, actions to uphold the humane treatment of detainees.
- Ensure that no individual in the custody or under the physical control of the DOD, regardless of nationality or physical location, shall be subject to cruel, inhuman, or degrading treatment or punishment as defined in U.S. law.
- Charged with the medical care of detainees have a duty to protect detainees' physical and behavioral health and provide appropriate treatment for disease.
- Not be involved in any professional provider-patient treatment relationship with detainees the purpose of which is not solely to evaluate, protect, or improve their physical and behavioral health.
- Not in a professional provider-patient treatment relationship, shall not apply their knowledge and skills in a manner that is not applicable law, or the standards set forth in DODD 2310.01E.
- Not certify, or participate in the certification of, the fitness of detainees for any form of treatment or punishment that is not in consonance with applicable law or participate in any way in the administration of any such treatment or punishment.
- Not participate in any procedure for applying physical restraints to the person of a detainee unless such a procedure is determined to be necessary for the protection of the physical or behavioral health or the safety of the detainee, or necessary for the protection of other detainees or those treating, guarding, or otherwise interacting with them.
- Not participate in detainee-related activities for purposes other than health care.
- During the initial screening of detainees any preexisting medical conditions, wounds, fractures, and bruises should be noted and documented as a baseline for each detainee which facilitates the identification of injuries which may have occurred in the detention facility.
- Detainees who report for routine primary care (sick call) should be visually examined to determine if any unusual or suspicious injuries are apparent. If present, the health care provider should determine from the detainee how the injuries occurred. Any injuries which cannot be explained or for which the detainee is providing evasive responses should be noted in the medical record and should be reported to the chain of command, technical medical channels, and U.S. Army Criminal Investigation Command.
- May enter the holding areas of the facility for a variety of reasons. These can include, but are not limited to, conducting sanitary inspections, providing tactical combat casualty care, and dispensing medications.
- Detained personnel must have access to the same available standard of medical care as the United States and UAPs to include respect for their dignity and privacy.
- Must safeguard patient confidences and privacy within the constraints of the law. Under United States and international law and applicable medical practice standards, there is no absolute confidentiality of medical information for any person. In any case in which the medical unit commander (or other designated senior medical activity officer) suspects that the medical information to be disclosed may be misused, the commander should seek a senior command determination that the use of the information will be consistent with the applicable standards.
- Information disclosed to a physician during the relationship between physician and patient is confidential to the greatest possible degree.
- Patient consent for the release of medical records is not required. The MTF commander or commander's designee, usually the patient administrator, determines what information is appropriate for release. Only that specific medical information or medical record required to satisfy the terms of a legitimate request will be authorized for disclosure.

C-20. Because the chain of command is ultimately responsible for the care and treatment of detainees, the detention facility chain of command requires some medical information. For example, detainees suspected of having infectious diseases such as tuberculosis should be separated from other detainees. Guards and other personnel who encounter such patients should be informed about their health risks and how to mitigate those risks.

C-21. Releasable medical information on detainees or internees includes that which is necessary to supervise the general state of health, nutrition, and cleanliness of internees and to detect contagious diseases. Such information should be used to provide health care; to ensure health and safety of internees, Soldiers, employees, or others at the facility; to ensure law enforcement on the premises; and to ensure the administration and maintenance of the safety, security, and good order of the facility.

Note. The process of abiding by the principles of ethical treatment of personnel regardless of national/adversarial affiliation and navigating rules regarding employment of weapon systems, markings, and duties, can be challenging. Units are strongly encouraged to consult with their servicing Staff Judge Advocate and Unit Ministry Team for advisement.

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Appendix D

Hospitalization Waste

This appendix provides guidelines to the hospital commanders and assigned administrative, clinical, and professional staff to implement DODM 4715.05 Volumes 1 through 5, AR 200-1, and other appropriate medical policies for compliance with Federal, DOD, and Army regulations. Commanders should establish an environmental management plan to manage risk and improve performance associated with the selection, handling, storage, use and disposal of hazardous material (HM), hazardous waste (HW), and regulated medical waste (RMW).

PROPONENT AND EXCEPTION AUTHORITY

D-1. The hospital commander may approve exceptions as needed to meet mission requirements within the scope of risk management and assigned risk tolerance. The commander should consult higher command and possibly the Army environmental law division on concerns with applicability of laws, regulations, initiatives, and executive orders. Additional guidance on legal requirements can be found in AR 200-1.

SCOPE

D-2. The provisions of this appendix are applicable to the Role 3 hospital operations where there is potential of environmental or occupational exposure to hazardous chemicals and waste, hazardous drugs, ionizing and nonionizing radiation, and material contaminated with potentially infectious blood or body fluids.

RESPONSIBILITIES

D-3. The hospital commander has overall responsibility for the environmental management plan and will—

- Comply with the combatant command's occupational and environmental safety requirements when deployed into its area of responsibility.
- Ensure subordinate commanders, managers, and supervisors are informed regarding occupational and environmental safety requirements.
- Ensure that HM, HW, and RMW are identified and managed according to the procedures provided in DODM 4715.05 Volumes 1 through 5, AR 200-1, TM 3-34.56, and this appendix.
- Comply with applicable environmental laws and regulations from federal executive orders, DOD Service components, and overseas final governing standards; DODM 4715.05 Volumes 1 through 5 may supplement or provide direction in the absence of formalized final governing standards.
- Verify disposal requirements via the military item disposal instructions system updated and maintained by Defense Centers for Public Health-Aberdeen.
- Identify environmental requirements, forward through command channels, and maintain auditable records.
- Ensure that HW and RMW manifests are signed by individuals who have been trained and are authorized in writing by the commander.
- Manage and dispose of non-Resource Conservation and Recovery Act, Subtitle C, medical, dental, veterinary, pharmaceutical and RMWs in accordance with AR 200-1 and applicable final governing standards or DODM 4715.05 Volumes 1 through 5.

D-4. The Operational Public Health (OPH) authority will ensure operational compliance and implementation of the environmental management plan, environment of care. Consult of plan requirements may be obtained from the environmental science engineering officer located with the PVNTMED section within the MEDBDE. The environment management plan and environment of care plan consists of the following elements:

- Management plans for HM, HW, and RMW. Management plans should address procedures for the identification, collection, storage, transporting, treatment, and disposal of HM, HW, or RMW. Management plans should also address required training, tracking, and recordkeeping.

- Risk assessments are completed to identify and evaluate the hazards associated with the use and disposal of HM, HW, and RMW generated by hospital operations. Risk assessments should include characterization and testing/analysis of HM, HW, and RMW.
- Disposal during CONUS operations may require identification of waste streams for compliance with the Environmental Protection Agency and the Department of Transportation regulations pertinent to the disposal of HW and RMW. Outside of CONUS operations should ensure disposal of excess, used, or unserviceable HM in a theater of operations complies with the policies established in final governing standards, DODM 4715.05 Volumes 1 through 5, and AR 200-1.
- The OPH authority maintains documentation of required permits, licenses, and manifests for HM, HW, and RMW.
- Contingency and emergency response plans in the event of disruption to processes associated with the safe handling, storage, disposal and/or treatment of HM, HW, or RMW.

D-5. Supply and Services will support the environmental management plan and environment of care by:

- Arranging for the collection, storage, transportation, and disposal of HW and RMW.
- Informing the OPH authority of training needs for logistics personnel.
- Notifying the OPH authority of HW or RMW accepted from external units. This should be tracked by type of waste, weight, and originating organization.
- Ensuring HW containers, RMW bags, and sharps containers are available.
- Coordinating with the unit safety officer, OPH authority, and infection control services representative to establish designated routes and times for HW and RMW collection.

HAZARDOUS MATERIALS

D-6. Hazardous material is any material capable of posing an unreasonable risk to health, safety, or the environment. Key procedures for managing HM include the proper handling, storage, issuance, transportation, labeling, and disposal.

D-7. Hazardous material dispensing areas should be properly maintained. Dispensing areas should be located away from catch basins and floor or storm drains.

D-8. Drums and containers must not leak. Drip pans and absorbent materials should be placed under containers as necessary to collect drips or spills. Container contents should be clearly marked.

D-9. Each HM shipment must have a manifest that clearly identifies the material, quantity, and associated safety data sheets (SDS). Material SDS may be utilized if the manufacturer has not provided a SDS or one is unavailable.

D-10. Drivers transporting HM should be trained on the health risks of exposure and the physical hazards, such as fire, explosion, and reactivity. Training should also include precautions for safe handling, spill control, first aid, and emergency notification procedures.

D-11. Containers should be checked for packaging integrity before and after loading.

D-12. Each section that utilizes HM shall maintain an SDS and provide required training as part of the hazardous communications program. Material SDS may be utilized if the manufacturer has not provided a SDS or a SDS is unavailable.

D-13. The following are characteristics of hazardous materials:

- The item is a health or physical hazard. Health hazards include carcinogens, corrosive materials, irritants, sensitizers, toxic materials, and materials that damage the skin, eyes, or internal organs. Physical hazards include combustible liquids, compressed gases, explosives, flammable materials, organic peroxides, oxidizers, pyrophoric materials, unstable (reactive) materials, and water-reactive materials.
- The item and its disposal are regulated by the HN because of its hazardous nature.
- The item has a flashpoint below 93°C (200°F) closed cup or is subject to spontaneous heating or is subject to polymerization with release of large amounts of energy when handled, stored, and shipped without adequate control.

- The item is a flammable solid or is an oxidizer or is a strong oxidizing or reducing agent with a standard reduction potential of greater than 1.0 volt or less than 1.0 volt.
- The item may produce dusts, gases, fumes, vapors, mists, or smokes with one or more of the above characteristics during normal operations, accidents, leaks, or spills.
- The item has special characteristics that, in the opinion of the manufacturer or the DOD components, could cause harm to personnel if used or stored improperly.

HAZARDOUS WASTE

D-14. Hazardous waste is discarded material that may be solid, semisolid, liquid, or contained gas and exhibits characteristics of a HW such as ignitability, corrosiveness, or toxicity. Parameters for determining HW can be found in DODM 4715.05 Volumes 4 and 5 and the U.S. Environmental Protection Agency website for HW. The U.S. Environmental Protection Agency assigns unique identifiers to hazardous waste materials. U.S. Environmental Protection Agency identifiers should be utilized on all notifications, recordkeeping, and reporting requirements. Key procedures for managing HW include identification, storage, transport, treatment, disposal, and recycling in an environmentally sound manner.

D-15. The PVNTMED specialist, unit safety officer, and supply services should identify and characterize waste streams generated at the hospital, assist with transport requirements, and provide oversight of HW accumulation points.

D-16. A HW profile sheet should be used to identify each HW stream. The profile sheet should be periodically updated to reflect any new waste streams or process modifications that change the character of the HW being handled at the storage area. Hazardous waste should be identified by a unique identification number for all recordkeeping, reports, and manifests.

D-17. Pretransport requirements are as follows:

- Utilize HN laws and regulations, international agreements (status of forces agreements, for example), and Service regulations to prepare necessary placarding, marking, containerization, and labeling for the transport of HW.
- All outbound HW should have a manifest to capture all transactions from point of origination to ultimate disposal. Utilize HN forms when applicable or DD Form 1348-1A *(Issue Release/Receipt Document)* or DD Form 1348-2 *(Issue Release/Receipt Document with Address Label)*. Further instruction and detail on outbound HW requirements can be found in DODM 4715.05 Volumes 4 and 5.

D-18. Hazardous waste accumulation point requirements are as follows:

- The section supervisor, OPH authority, safety officer, and supply services representative should ensure the requirements for HW accumulation points from DODM 4715.05 Volumes 4 and 5 are met.
- The HW accumulation points should not accumulate more than 55 gallons of HW, or one quart of acute HW, from each waste stream or shipped for treatment or disposal. The accumulation point must be at or near the point of generation. The accumulation point should be designed and operated to provide segregation for different waste streams and have appropriate warning signs.
- Containers holding HW should be in good condition, free from severe rusting affecting structural integrity, bulging, or other structural defects. Containers should be compatible with the stored HW to prevent damage to the container. Containers should remain closed until needed. Care should be taken to avoid excessive handling to prevent container damage. Containers with flammable liquids will need to be grounded when transferring flammable liquids from one container to the other.
- Containers holding HW should be marked with a HW marking and a label indicating the hazard class of the waste contained (flammable, corrosive).
- Containers, secondary containment, and the HW accumulation points require weekly inspection for deterioration and potential leaking.
- Secondary containment should be able to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed. Secondary containment should have a minimum capacity of 10 percent of the volume of stored containers or the volume of the largest container, whichever is greater.

D-19. Recordkeeping requires audit trails through manifests, HW logs, and waste analysis and characterization records.

D-20. Personnel assigned to maintain HW accumulation points will need to successfully complete HW operations and emergency response training. At a minimum, training should meet topics covered in Section 1910.120, Part 1910, Chapter XVII, Title 29, Code of Federal Regulations (CFR) (29 CFR Chapter XVII [1910.120]), such as clean-up operations, emergency response operations, storage, and disposal/treatment of hazardous substances.

D-21. Disposal or treatment of HW is dependent on the location of hospital operations and available resources. Adhere to final governing standards and HN environmental laws and regulations. Comply with DODM 4715.05 Volume 4 and 5 in the absence of final governing standards.

REGULATED MEDICAL WASTE

D-22. Regulated medical waste comes from diagnosing, treating, researching, or immunizing humans and animals. This waste can cause disease or pose risks to staff and patients if not handled correctly. RMW may also be called infectious, biohazardous, clinical, biomedical, or medical waste, with terminology varying by location and host nation.

D-23. Department supervisors, guided by the PVNTMED section and safety officer, establish and enforce management controls through regular inspections to ensure compliance with RMW policies. Supervisors plan, conduct, and document staff training to promote safe RMW handling and adherence to established procedures.

D-24. Personnel must properly group, package, and label all RMW at the point of origin. RMW and HW must not be mixed, as disposal and treatment differ. Incorrect handling can create hazardous conditions and violate host nation regulations, final governing standards, or DODM 4715.05 Volume 5 environmental guidelines.

D-25. The medical laboratory safety officer, OPH authority, and unit safety officer classify and determine the proper handling of laboratory waste reagents as either HW or RMW to ensure safe and compliant disposal.

COLLECTING AND HANDLING OF REGULATED MEDICAL WASTE

D-26. Sharps must be placed in a puncture-resistant container designated for sharps disposal. Sharps containers should be placed as close as practical to the use areas. The size (volume) of the sharp's container is determined by the waste generators. Sharps containers should be sealed and removed when the container is three quarters full or filled to the line indicated by the manufacturer.

D-27. Nonchemotherapy RMW will require leak-proof, puncture-resistant, red-plastic-bag-lined receptacles meeting recommended impact strength and tear strength as established by the American Society for Testing and Materials. In areas where RMW is rarely generated (for example, a small field laboratory), personnel may use red bags as described in Section 1910.1030, Part 1910, Chapter XVII, Title 29 CFR (29 CFR Chapter XVII [1910.1030]) as interim collection bags, which do not meet the American Society for Testing and Materials standards. However, these interim collection bags must be placed in red bags that meet American Society for Testing and Materials standards prior to transport within and outside of the hospital area.

D-28. Securely tie and seal RMW bags. Do not shake or squeeze the bags as this may lead to a puncture and accidental injury. Do not compact or crush RMW to reduce volume as this may also lead to puncture and accidental injury.

D-29. Carry sealed bags by their necks to the transportation cart. Do not lift or hold bags by the bottom or sides. Carry bags away from the body. Ensure bags are not ripped, opened, or dropped; never throw the bags into carts.

D-30. Designated routes should be used when moving RMW within the hospital. High traffic routes should be avoided.

D-31. Bags used for the transport of RMW must meet the Department of Transportation requirements shown in Section 173.197, Part 173, Chapter I, Title 49 CFR (49 CFR Chapter I [173.197]) for tear and impact resistance. Bulk packaging is defined as having a capacity greater than 450 liter (119 gallon) or net mass greater than 400 kilogram (882 pound) per container.

REGULATED MEDICAL WASTE GROUPING

D-32. The RMW is divided into nine groups (RMW groups may differ in HN standards). Manage specific RMW groups as described below:

- Group 1-Cultures, stocks, and vaccines:
  - Cultures and stocks: Separate microbiologic waste (cultures and stocks of etiologic agents) from general waste for decontamination. Liquid group 1 RMW, such as liquid culture media may be kept in its original container and placed in the sharp's container for treatment and disposal.
  - Vaccines: Discard all partially full or empty vials of vaccines in sharps containers. Dispose of nasal mist vaccine dispensers in red bags.

Note. Exceptions: Some vaccines containing thimerosal may be HW due to high mercury content. The OPH authority, with consult from the infection control services representative, will need to provide waste characterization to the fullest extent possible before discarding in the sharps container. Allergy shots do not contain live or attenuated viruses and, therefore, do not meet the definition of a vaccine. Manage empty glass vials as noninfectious glassware.

- Group 2-Pathological waste. Dispose of pathological waste in a RMW container lined with an RMW bag or double bag in RMW bags. Specimen preservatives such as formalin are not RMW and must be decanted and collected separately. The OPH authority will need to provide waste characterization to determine preservative disposal procedures.
- Group 3-Blood and blood products. Dispose of breakable containers of bulk blood or blood products in rigid, puncture resistant, leak-proof RMW containers. Use plastic RMW bags to dispose of blood products, such as blood bags and blood filter tubing and items saturated, dripping, or caked with blood. If safe to do, remove needles from the tubing and place the needle in a sharp's container for disposal; otherwise, place the tubing and the needle into the sharps container.
- Groups 4 and 7-Sharps and syringes. Discard all sharps and syringes directly into a rigid puncture-resistant, plastic sharps container immediately after use. Discard disposable needles and syringes intact; do not cut, break, bend by hand, or recap using a two-handed method.
- Group 5-Animal waste. Infectious animal waste must be managed as RMW. The OPH authority, unit safety officer, and veterinary services representative should specify any requirements for disposal of potentially infectious animal waste.
- Group 6-Isolation waste. Isolation wastes are generated by hospitalized patients that have been isolated to protect others from communicable disease. The infection control services representative, OPH authority, and unit safety officer will need to provide requirements for handling and disposal of isolation waste.
- Group 7-See Group 4, above.
- Group 8-Other. The infection control services representative, OPH authority, and unit safety officer will need to provide requirements for handling RMW fluids. Free flowing fluids may need to be collected in containers. Items that are dripping or saturated with infectious agents should be placed in RMW bags.
- Group 9-Chemotherapy wastes. It is unlikely to encounter chemotherapy wastes in Role 3 hospital operations. If chemotherapy wastes are generated, do not mix with nonchemotherapy RMW or HW. If possible, dispose in a yellow puncture proof container. The OPH authority should consult the environmental science engineering officer at the next higher echelon for specific guidance on chemotherapy waste disposal.

D-33. Personal protective equipment (PPE) includes gloves and PPE appropriate for the type of RMW and task of handling bagged RMW. Appropriate PPE will be designated based on OPH authority, safety officer input, and infection control services characterization of RMWs.

STORAGE OF REGULATED MEDICAL WASTE

D-34. The RMW must be stored in designated RMW storage areas as recommended by the PVNTMED authority, unit safety officer, and supply services.

D-35. Label the entrance to RMW storage areas with Regulated Medical Waste and the universal biohazard symbol. Other information may be added as required by other applicable regulatory requirements. Keep the main holding area secure; free from pests; and in a clean, putrid-free state.

D-36. Storage of RMW should not exceed the waste removal periods specified by applicable regulatory requirements. Mission requirements may extend storage time requirements. Ensure risk management is applied to minimize potential health hazards. Environmental control such as refrigeration may be required to maintain RMW storage areas to avoid the accumulation and proliferation of odors.

D-37. Disposal contracts or HN regulatory requirements may impose temperature controls for storing pathological waste on-site. Refrigerating or freezing of human and animal pathological wastes may be required to comply with HN and final governing standards requirements. In the absence of these requirements, consult the OPH authority and TM 3-34.56.

TRANSPORTATION OF REGULATED MEDICAL WASTE WITHIN THE HOSPITAL

D-38. Carts used to transport RMW will be constructed of nonporous, readily cleanable material; plastic; or stainless steel. If carts are equipped with lids, keep them closed when transporting the RMW. Do not mix RMW bags with general solid waste in the same cart or container unless it is equipped with separate, leak-proof compartments.

D-39. Carts and other reusable containers used to transport RMW must be cleaned with an Environmental Protection Agency registered hospital grade disinfectant.

D-40. Personnel cleaning carts must wear PPE (for example, splash resistant goggles, face shield or mask, impervious apron, and impervious gloves). An emergency eyewash device must be in the cart washing area; the device must be functional and maintained according to American National Standards Institute Z358.1-2014, Emergency Eyewash and Shower Equipment.

D-41. Put bags of RMW in leak proof, rigid containers and mark the containers with the universal biohazard symbol. Red bags do not require marking with the universal biohazard symbol unless required by applicable regulatory requirements.

D-42. Transportation of RMW outside of hospital boundaries. Outside of CONUS hospital operations (excluding Alaska, Hawaii, and U.S. territories) will reference HN regulatory requirements, final governing standards, and DODM 4715.05 Volume 3 and DODI 4715.27, C2. DOD *Low-Level Radioactive Waste (LLRW) Program,* for specific transportation requirements of RMW. The OPH authority and supply services will ensure all containers with RMW will meet labeling, weight limit, and documentation requirements.

MANAGEMENT OF REGULATED MEDICAL WASTE SPILLS

D-43. The unit safety officer, PVNTMED section, supply services and infection control services, will develop policies and procedures for management of RMW spills. At a minimum, procedures should address training requirements for clean-up, disinfection, isolation, and PPE.

D-44. Trained personnel will clean RMW spills immediately with a registered hospital grade disinfectant. The PVNTMED section should consult the environmental sciences engineering officer at the next higher echelon when unsure of the appropriate level of disinfection. The PVNTMED section, safety officer, and infection control services should make the appropriate determination for categorizing clean-up and disinfection material as RMW.

D-45. Personal protective equipment for clean-up and disinfection includes—

- Wearing disposable waterproof gloves, as a minimum.
- Wearing fluid impervious gowns or other protective clothing when there is risk of contaminating clothing.
- Wearing a mask and protective eyewear when there is danger of splashes or aerosols.
- Using scoops, dustpans, tongs, or other equipment to pick up and dispose of sharps and larger volumes of RMW.

D-46. When a RMW waste disposal contractor is not used and, unless otherwise specified by applicable regulatory requirements, the following RMW treatment methods may be applied:

- Render liquid microbiological waste noninfectious via steam sterilization prior to disposal. Follow the manufacturer's instructions for required time and temperature.
- Steam sterilize or incinerate solid microbiological waste prior to disposal in the general waste stream. Follow the manufacturer's instructions for proper time and temperature requirements.
- Treatment of blood and blood products is not required prior to disposal. When sanitary sewer disposal is not allowed by local ordinance, facilities may need to treat their blood and blood products via steam sterilization and/or use RMW bags and sharps containers for disposal.
- Decontaminate wastes containing Centers for Disease Control and Prevention Biosafety Levels 2, 3, and 4 etiologic agents by steam sterilization, incineration, or other approved disposal technology prior to disposal.

D-47. Table D-1 contains additional information for determining appropriate treatments or disposal methods for RMW.

Table D-1. Regulated medical waste treatment or disposal methods

Source/type of medical waste	***Regulated?***	***Treatment/disposal method***
Microbiologic cultures/stocks	Yes	• Incineration • Thermal inactivation • Chemical disinfection (for liquids only) • Steam sterilization followed by incineration or grinding
Pathological wastes (includes surgery and autopsy waste)	Yes	• Incineration • Steam sterilization followed by incineration or grinding
Blood/blood products, caked blood including blood bags and tubing.	Yes, only if free flowing, saturated, dripping, or caked	• Steam sterilization • Incineration • Sanitary sewer system for liquids
Sharps both used and unused	Yes	• Incineration • Steam sterilization followed by incineration or grinding
Vaccines	Yes	• Incineration • Steam sterilization followed by incineration or grinding
Contaminated animal carcasses, body parts, and bedding	Yes	• Incineration • Steam sterilization followed by incineration or grinding

Table D-1. Regulated medical waste treatment or disposal methods (continued)

Source/type of medical waste	*Regulated?*	*Treatment/disposal method*
Dialysis wastes	Optional	• Steam sterilization
Treatment/examination room	No	• General waste (unless the wastes fall into one of the categories above)
General patient care areas	No	• General waste (unless the wastes fall into one of the categories above)
Dental operatory	Yes, only if free flowing, item saturation, dripping, or caked with blood	• Steam sterilization • Incineration • Sanitary sewer system for liquids
Intravenous bags and intravenous tubing	Check with state regulations	• Steam sterilization • Incineration
Note. Local requirements may require more stringent treatment/disposal methods. When the treatment/disposal methods shown above are not appropriate or feasible for the local situation, contracting for the transport and disposal of regulated medical waste is recommended.		

D-48. Contingency planning includes—

- Maintaining a detailed written, site-specific contingency plans for RMW disposal when primary means of disposal are unavailable. Contingency plans must include procedures for alternative RMW disposal when the existing RMW procedures are not available or when environmental conditions temporarily prevent the disposal of RMW.
- Planning for RMW disposal during permanent or extended interruption of primary RMW disposal mechanisms may consist of separate agreements with other RMW service providers, reciprocal agreements with other RMW generators, or some other mechanism that will ensure RMW is managed in a legal and environmentally sound manner.
- Accounting for instances of substantial increase in RMW generation. These plans will be included in the emergency operations plan and include considerations such as identification of additional space for storing RMW awaiting disposal; pre-negotiated contracts to schedule more frequent RMW pick-up; cleaning and decontamination of the temporary storage site following the event; and replenishment of supplies, such as red bags and sharps containers.

D-49. Training requirements include—

- Section supervisors, PVNTMED, and the unit safety officer will ensure personnel have received training to safely and correctly perform duties associated with RMW management.
- Personnel having, or potentially having, occupational exposure to RMW will be evaluated under the hospital's exposure control plan and will receive training according to the 29 CFR 1910.1030, Bloodborne Pathogens Standard.
- Training for personnel who sign shipping papers meet requirements specified in the DTR 4500.9-R, *Defense Transportation Regulation Part II, Cargo Movement*, Chapter 204, Hazardous Material. Driver training will meet requirements specified in Section 177.816, Part 177, Chapter I, Title 49 CFR (49 CFR Chapter I [177.816]), Driver Training, and AR 600-55.
- Initial training should be supplemented with refresher training after one year from date of initial training.
- The section supervisors must maintain written documentation of all training. Training records should be readily available for review. Documentation should include topics, content summary, dates, length of training, and printed name and signatures of all attendees.

D-50. The Role 3 hospitals are likely to experience waste streams as listed in table D-2 on page 197. Total quantities of waste generation are dependent on the size and scope of military operations.

Table D-2. Potential waste streams for Role 3 hospitals

General waste — This category captures all waste not specifically classified as medical waste or hazardous waste. Examples includes—	
Soiled/dirty linen, clothing, personal protective equipment	That are not Group 3 or 6 medical waste.
Urine cups	Empty or full.
Intravenous bags, tubing	Empty, partially used.
Controlled substances	Require special handling/disposal.
Empty reagent bottles/containers	Glass and plastic.
Disinfectants	Nonalcohol based.
Packaging materials	Cardboard/plastics/shrink wraps.
Autoclaved medical waste	Only applies to Groups 1 and 3.
Military equipment (non-chemical, biological, radiological, and nuclear)	Disinfected for reuse/demilitarization.
Human waste	Field sanitation issue.
Hazardous waste—Waste that is ignitable, corrosive, reactive, or toxic. Examples includes—	
Dental amalgam	Loose and collected amalgam, or in teeth.
Lithium batteries	Ones that are not fully discharged.
Lead acid batteries	From backup power supplies for computers/electronics.
Pharmaceuticals	Typically, only applies to unused, expired stocks: Alcohols, silver nitrate sticks, lindane, warfarin, shampoos containing Selenium (formulary review necessary).
Hand sanitizers/disinfectants	Alcohol based (used/unused).
Compress gas cylinders	That are still pressurized and/or sealed.
Aerosol cans	That are still pressurized and/or sealed.
Mercury containing items	Mercury switches, thermometers, lights.
Incinerator ash (from medical waste)	Requires initial and periodic characterization. Effective waste segregation necessary.
Radiation contaminated materials	Consult health physics personnel.
Chemically contaminated items and decontamination waste	Includes all personal protective equipment, harmful solvents, and personal effects.
Computers/electronics devices	Circuit boards, internal batteries.

Table D-2. Potential waste streams for Role 3 hospitals (continued)

Medical waste—Waste generated in the diagnosis, treatment, research, or immunization of human beings or animals which can cause disease or which, if not handled properly, poses a risk to individuals or a community. Regulated medical wastes are grouped by waste source—	
Group 1	Cultures, Stocks, Vaccines—cultures and stocks of infectious agents and associated biologicals, including cultures from medical and pathological laboratories; all discarded human and vaccines.
Group 2	Pathological Waste—tissue specimens, organs, body parts, extracted human teeth, and body fluids that are removed during surgery, autopsy, or other medical procedures.
Group 3	Blood and Blood Products—any items caked with or containing free-flowing liquid human blood, plasma, serum, and other blood derivatives.
Group 4/7	Sharps—all used and unused syringes, broken glassware, contaminated pipettes, scalpels, blood collection tubes, vials, test tubes.
Group 6	Isolation Wastes—bedding and waste materials contaminated with blood, excretion exudates, or secretions from humans and animals that are isolated to protect others from highly communicable diseases.
Biologically contaminated items and decontamination waste (Group 6)	Includes all personal protective equipment, harmful solvents, and personal effects.

Appendix E

Hospitalization Safety

Appendix E provides guidelines to hospital commanders, assigned administrative, clinical, and professional staff to implement AR 385-10 for compliance with federal, DOD, and Army regulatory requirements and establish a safety management system to control or eliminate unsafe conditions and practices that may result in manpower or monetary loss.

SECTION I – SAFETY MANAGEMENT SYSTEM PROGRAM

E-1. The hospital commander is the authority that may approve exceptions as needed to meet mission requirements within the scope of risk management and assigned risk tolerance.

E-2. The safety management system applies to all patients, visitors, military, and civilian personnel. All personnel assigned to the hospital are required to become familiar with guidelines provided in this appendix.

E-3. The hospital commander has overall responsibility for implementation of the safety management system and will—

- Comply with the combatant command's safety requirements when deployed into its area of responsibility.
- Ensure subordinate commanders, managers, and supervisors are informed regarding safety and occupational health requirements and applicable HN safety requirements.
- Designate a unit safety officer as the primary point of contact for all aspects of the safety management system. The unit safety officer should be a commissioned officer at battalion and higher unit levels or staff sergeant or higher at the company level. Additional duty safety personnel should complete the additional duty safety course within 30 days of appointment as a unit safety officer.
- Designate, in writing, a radiation safety officer when necessary to ensure compliance with prescribed Army radiation safety programs and AR 385-10 and DA Pam 385-10.
- Ensure standard Army safety and occupational health inspections are conducted.
- Integrate Occupational Safety and Health Administration (OSHA) and national consensus standards into military standards, tasks, techniques, and procedures as appropriate.
- At a minimum, implement core safety program elements listed in table E-1.

Table E-1. Army safety and occupational health program elements

Description	***Applicability***
Strategic Planning, Army Safety Program Structure, Safety Program Evaluation, Councils, and Committees (Army Regulation [AR] 385-10, Chapter 1)	Required
Safety and Occupational Health Audits, Assessments, and Inspections (AR 385-10, Chapter 2)	Required
Mishap Investigation, Reporting, and Recordkeeping (AR 385-10, Chapter 3)	Required
Training and Promotion Requirements (AR 385-10, Chapter 5)	Required
General Workplace Safety and Occupational Health (Workplace Safety) (AR 385-10 [Chapter 8] and Part 1910, Chapter XVII, Title 29 Code of Federal Regulations)	Recommended
Tactical Operations (AR 385-10, Chapter 12)	Required
Motor Vehicle Mishap Prevention (AR 385-10, Chapter 13)	Required
Army Radiation Safety and Occupational Health program –Ionizing and Nonionizing Radiation (AR 385-10, Chapter 16 and 17)	Required
Infectious Agents and Toxins (AR 385-10, Chapter 20)	Recommended
Army Electrical Safety Program (AR 385-10, Chapter 23)	Required

E-4. The chief/supervisor of each department, division, section, or designated representative will—

- Integrate a safety program as described in AR 385-10 and DA Pam 385-10.
- Investigate and report all accidents occurring within the assigned area according to the requirements of DA Pam 385-40, Army Accident Investigations and Reporting.
- Provide work area specific safety training as applicable.
- Ensure employees are trained in the care, use, maintenance, storage, and limitations of required PPE.
- Incorporate risk management into procedures, processes, and operations. Elevate decisions exceeding assigned level of risk tolerance.
- Ensure personnel always employ good housekeeping practices.
- Appoint unit safety officers at the department, division, or section to assist with implementation of the safety program. The unit safety officers must be appointed in writing by the hospital commander. Additional duty safety personnel should complete the additional duty safety course within 30 days of appointment as a unit safety officer.

SECTION II – ACCIDENT REPORTING AND SAFETY PROGRAMS

E-5. This section discusses the reporting and investigation requirements when a mishap occurs. It goes on to discuss the safety programs and mishap prevention procedures recommended or required for Army commanders to institute in their units.

MISHAP INVESTIGATION, REPORTING, AND RECORDKEEPING

E-6. Mishaps should be investigated to the degree necessary to identify the immediate causal factors and system inadequacies which may have contributed to the mishap. Techniques and procedures for mishap investigation and report writing are provided in AR 385-10 and DA Pam 385-40. Ensure the appropriate level in the chain of command is notified immediately as well as the U.S. Army Combat Readiness Center.

SAFETY PROGRAMS

E-7. Units can manage safety programs in several ways to ensure the health and well-being of personnel and maintain operational readiness. Some safety programs are tailored specifically for hospitals or medical units, addressing hazards unique to healthcare environments. These programs focus on infection control, hazardous material handling, and patient safety.

E-8. Other safety programs apply universally to all units, regardless of their function. These programs typically cover fire prevention, workplace ergonomics, accident reporting, and emergency response planning. Regular safety audits, routine inspections, and risk assessments help identify potential hazards and reduce risks across all types of units.

E-9. Effective safety program management involves assigning dedicated personnel, such as safety officers, to oversee and implement policies. Leadership plays a critical role by promoting a culture of safety, ensuring all personnel receive proper training, and encouraging open communication about safety concerns. Continuous improvement through feedback, updating procedures, and learning from past incidents strengthens overall program effectiveness.

E-10. By customizing safety programs to fit the specific needs of each unit while following broader guidelines, organizations can create safer environments and reduce the likelihood of injuries or accidents.

RADIATION SAFETY MANAGEMENT

E-11. The radiation safety officer conducts an inventory of all ionizing and nonionizing radiation sources, performs a risk assessment of the sources, and evaluates compliance with AR 385-10 and OSHA regulations pertinent to the selection, storage, handling, use and disposal of ionizing and non-ionizing radiation sources. The safe use of radiation sources will meet compliance with all applicable federal and DOD rules and regulations as stipulated in AR 385-10. Technical requirements for developing management and control processes for operations involving sources of radiation are listed in AR 385-10. Critical tasks for the

radiation safety officer include appointment orders, ionizing/nonionizing radiation source inventory, x-ray unit compliance testing documentation, radiation safety training documentation, and dosimetry program, if necessary.

E-12. X-ray systems, including deployed x-ray systems, require testing before they are used on patients. This testing is intended to ensure that the systems are operating within the manufacturer's specifications and applicable Army and federal standards. The testing also ensures that radiation exposure to staff and patients is kept as low as is reasonably achievable. The Army uses TB Med 521 as the primary guidance when conducting x-ray system testing. X-ray systems will be tested in accordance with the frequency specified in TB Med 521.

E-13. All medical and dental x-ray systems will require x-ray system testing. This includes general purpose, mobile, fluoroscopy, intraoral, and panoramic dental, veterinary, and CT.

E-14. The unit's designated radiation safety officer should coordinate with the theater radiation safety officer or the U.S. Army Public Health Center if the theater radiation safety officer is not available to request qualified experts to conduct the x-ray system testing as required by TB Med 521.

E-15. The qualified expert, nuclear medical science officer (area of concentration 72A), performing the x-ray system testing must meet the training requirements as specified in TB Med 521.

E-16. Copies of x-ray system test results will be sent to the unit's radiation safety officer and biomedical maintenance personnel for their use and documentation. X-ray system test results will also be available upon request from the organization conducting the system testing upon request.

E-17. Commanders may waive TB Med 521 requirements during military operations; however, commanders should consider the operational requirements with the risks to personnel from decreased radiographic image quality and possible increased radiation exposure to patients and staff. The commander shall consult with the theater radiation safety officer before making waiver recommendations.

TACTICAL SAFETY

E-18. Safety support during training, contingency, and tactical operations is applicable as described in AR 385-10. The tactical safety element is intended to conserve combat power through reduction in manpower and equipment losses. Risk management will be integrated into all tactical and contingency operations as specified in ATP 5-19. All expected tactical threat-based and accidental hazard-based vulnerabilities will be examined to determine associated risk. Risk mitigation strategies should be implemented to fully control identified hazards possible based on mission requirements.

E-19. The unit safety officer should exercise due diligence to—

- Review the operations order and its safety implications.
- Capture lessons learned based on safety issues encountered during training, contingency and tactical operations.
- Ensure all participants receive safety training to enable safe and efficient execution of the operation. Topics of interest include thorough understanding the hazards, enabling the mitigation strategy, and establishing the use and limitations of required PPE.

OCCUPATIONAL SAFETY AND HEALTH PROGRAM (WORKPLACE SAFETY)

E-20. Implementation of OSHA safety standards are recommended for all hospital operations. The hospital commander and designated unit safety officers should make every effort to meet established safety and occupational health standards and guidelines to mitigate risk from known or anticipated hazards.

E-21. Executive Order 12196, and DODI 6055.01, direct the implementation of OSHA programs in all CONUS and, to the fullest extent possible and feasible, for outside of CONUS. Military-unique operations are exempted from implementing OSHA programs based on mission requirements and associated risk assessments. However, the term military unique operations do not exclude operations with work processes comparable to those of industry in the private sector such as medical services. Nonmilitary unique processes that support military unique operations, such as patient care, may be subject to federal, Army, and host-nation laws, regulations, standards, and guidelines during the full range of military operations. When

standards do not exist for military application, or the application is not feasible, the hospital commander should fully apply risk management possible to mitigate known and anticipated hazards.

E-22. Procedures for occupational and workplace safety are detailed in DA Pam 385-10. Table E-2 lists OSHA Standards with application to medical services provided by Role 3 hospitals.

Table E-2. Occupational safety and health administration standards

Part title	*Part number*	*Applicability*
Hazard communications	1910.1200	Recommended
Respiratory protection	1910.134	Recommended
Personal protective equipment	1910 Subpart I	Recommended
Bloodborne pathogens	1910.1030	Recommended
Emergency action plans and fire prevention plans	1910 Subpart E	Recommended
Control of hazardous energy (lockout and tagout)	1910.147	Recommended
Hazardous waste operations and emergency response	1910.120	Recommended
Laboratory chemical hygiene	1910.1450	Recommended
Ionizing radiation	1910.1096	Recommended

HAZARD COMMUNICATION

E-23. Hospital processes entail the use of hazardous chemicals for maintenance, sanitization, disinfection, and sterilization processes. Adherence to OSHA's Hazard Communication Standard, Section 1910.1200, Part 1910, Chapter XVII, Title 29 CFR (29 CFR Chapter XVII [1910.1200]), will ensure the safety of hospital personnel and patients through effective hazard communication.

E-24. The hospital unit safety officer, specialty clinic representatives, and infection control services representative should develop a written hazardous communications program with the following elements:

- Designated hazardous communications representatives for hospital sections with hazardous chemical use, such as medical maintenance, and require them to implement the program within their sections.
- Standard operating procedures for labeling containers of hazardous chemicals.
- Collection of chemical inventories and associated SDS for hazardous chemicals utilized at the site. Material SDS may be utilized if the SDS is unavailable.
- Training for personnel that includes the nature of the potential exposure to hazardous chemicals, how to utilize the safety information contained in the SDS, how to access these materials, required controls and PPE, and spill response procedures.

RESPIRATORY PROTECTION

E-25. The use of National Institute for Occupational Safety and Health approved respirators is required by AR 11-34. Respirators protect against potential inhalation, eye, or mucosal membrane contact by chemical, biological, or physical hazards. Hazards may stem from chemical vapors, combustion fumes, or aerosol transmissible disease pathogens. Engineering and administrative controls for these potential hazards are supplemented with respiratory protection to limit exposure to the hazards. Implementing a respiratory protection program following OSHA's Respiratory Protection Program Standard, Section 1910.134, Part 1910, Chapter XVII, Title 29 CFR (29 CFR Chapter XVII [1910.134]) will ensure the safety of hospital personnel. See paragraphs E-27 and E-28 for diseases and pathogens with associated recommended use of respiratory protection.

E-26. The hospital unit safety officer, specialty clinic services representative, and infection control services representative should develop a written respiratory protection program with the following elements:

- Designate a respirator program administrator to manage and implement the program.

- Procedures for hazard evaluation and respirator selection.
- Medical evaluation of respirator wearers.
- Fit testing procedures for tight-fitting respirators (including filtering facepiece respirators).
- Procedures and training for the proper use, storage, maintenance, repair, disposal, and limitations of respirators.
- Recordkeeping of training, fit testing, and medical clearance.

E-27. The following are diseases/pathogens requiring airborne precautions:

- Aerosolizable spore-containing powders such as Anthrax/Bacillus anthracis.
- Varicella (chickenpox) and herpes zoster (disseminated or in an immunocompromised host)/varicella-zoster virus.
- Monkeypox/Monkeypox virus.
- Smallpox (variola)/Variola virus.
- Aspergillosis (if massive soft tissue infection with copious drainage and repeated irrigations required).
- Measles (rubeola)/Measles virus.
- Severe acute respiratory syndrome/severe acute respiratory syndrome-associated coronavirus.
- Tuberculosis/Mycobacterium tuberculosis.
- Novel or emerging pathogens and any other disease for which public health guidelines recommend airborne infection isolation.

E-28. The following are diseases/pathogens requiring droplet precautions:

- Diphtheria, pharyngeal.
- Mumps (infectious parotitis)/mumps virus.
- Pneumonic plague/Yersinia pestis.
- Epiglottitis, due to Haemophilus influenzae type b.
- Mycoplasma pneumonia.
- Rhinovirus.
- Haemophilus influenzae serotype b (Hib) (see disease specific recommendations).
- Parvovirus B19 infection (erythema infectiosum).
- Rubella virus infection (German measles)/Rubella virus.
- Influenza viruses, seasonal.
- Pneumonia.
- Adenovirus.
- Haemophilus influenzae, serotype b, infants and children.
- Meningococcal, Mycoplasma, primary atypical Streptococcus, Group A.
- Streptococcal disease (Group A streptococcus).
- Skin, wound or burn, major.
- Pharyngitis in infants and young children.
- Scarlet fever in infants and young children.
- Serious invasive disease.
- Meningitis.
- Haemophilus influenzae, type b known or suspected.
- Neisseria meningitis (meningococcal) known or suspected.
- Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, and Crimean-Congo fever viruses.
- Pertussis (whooping cough).

PERSONAL PROTECTIVE EQUIPMENT

E-29. Hospital processes require the use of PPE when engineering controls and administrative controls are insufficient to limit occupational exposure to hazards. The section supervisor in conjunction with the hospital unit safety officer, specialty clinic services representative, and infection control services representative should ensure protective equipment, including PPE for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, are provided based on known

or expected hazards. Additionally, the section supervisor should ensure PPE is utilized and appropriately maintained.

BLOODBORNE PATHOGENS

E-30. Bloodborne pathogens are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus, hepatitis C virus, and human immunodeficiency virus (the virus that causes acquired immunodeficiency syndrome). Prudent practice suggests health care providers utilize universal precautions to limit the potential for exposure to bloodborne pathogens.

E-31. The hospital unit safety officer, specialty clinic services representative, and infection control services representative should establish the following measures to implement an effective bloodborne pathogen program:

- Establish an exposure control plan to eliminate or minimize occupational exposures.
- Implement the use of universal precautions.
- Identify and use engineering control devices that isolate or remove the bloodborne pathogen hazards from the workplace. These devices include sharps disposal containers, self-sheathing needles, sharps with engineered injury protection, and needleless systems.
- Identify and ensure the use of work practice controls that address contaminated sharps disposal, specimens handling, laundry handling, and appropriate disinfection and cleaning of surfaces.
- Ensure the use of PPE, such as gloves, gowns, eye protection, and masks.
- Hepatitis B vaccinations for all health care providers with potential occupational exposure to bloodborne pathogens.
- Provide training that includes the nature of the hazard and routes of exposure, engineering and administrative controls, PPE, and reporting procedures for instances of bloodborne pathogen exposure. An exposure incident is a specific eye, mouth, other mucous membrane, nonintact skin, or parenteral contact with blood or other potentially infectious material.
- Ensure the use of labels and signs to communicate hazards. Warning labels should be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or other potentially infectious material; other containers used to store, transport, or ship blood or other potentially infectious material; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry.
- Maintain records such as training and a sharps injury log.

EMERGENCY RESPONSE AND FIRE PREVENTION PLANS

E-32. The robust application of risk management to hospital operations typically accounts for environmental and situational circumstances, which may impede capability, capacity, and efficiency. The hospital's emergency response and fire prevention plan are in addition to risk management applied to military operations.

E-33. The unit safety officer should develop and incorporate an action plan for emergency unforeseen situations that threaten personnel or patients, disrupts operations, or that may cause physical or environmental damage. Emergency planning should encompass actions for personnel and patient accountability, timely evacuation, containing hazards, and alternate solutions for continuing hospital operation. Emergency plans should, at a minimum, address actions during floods, hurricanes, tornadoes, fires, toxic gas releases, chemical spills, explosions, or workplace violence.

CONTROL OF HAZARDOUS ENERGY

E-34. Lockout/tagout addresses the practices and procedures necessary to disable machinery or equipment to prevent the uncontrolled release of hazardous energy during servicing and maintenance activities. Hazardous energy sources include electrical, mechanical, hydraulic, pneumatic, chemical, and thermal.

E-35. The unit safety officer and facilities manager (medical maintenance, supply and services section) representative should develop an energy control program that establishes safe work practices specifying

lockout and tagging procedures. Lockout/tagout generally consists of de-energizing the system and system isolation though a physical mechanism that can prevent system energizing. Systems that cannot employ a physical mechanism to prevent energization will utilize a tagging process to inform and prevent energization.

HAZARDOUS WASTE OPERATIONS

E-36. The section supervisor, unit safety officer, and specialty clinic representatives should develop a program to manage the disposition of hazardous waste from their assigned area. See Appendix D for further information on HW management for hospitals.

COMPRESSED GAS AND CYLINDERS

E-37. The section supervisor, unit safety officer, and supply and services section should develop a plan to safely store and transport compressed gases and cylinders. Regulators, cylinders, and cylinder valves should be inspected regularly to ensure safe operation. Gasses that may react with each other must be stored separately. Potential hazards include oxygen displacement, explosions and fires, or toxic effects due to occupational exposure. Additional information may be found in AR 700-68/DLAR (JS) 4145.25/NAVSUPINST 4440.128/MCO 10330.2D.

E-38. The following controls should be implemented to minimize the potential hazards:

- Color coding and labeling for clear identification of cylinder contents.
- Individual training on proper handling and use.
- Designated cool, dry, well-ventilated, and fire-resistant area storage area.
- Segregation of empty and full cylinders.
- Segregation of incompatible gasses.
- Keep bottles capped when not in use.
- Check regulators for damage before using.
- Ensure regulator valve is in the closed position before installing on bottle.
- Inspect all hoses before use.

LABORATORY CHEMICAL HYGIENE

E-39. The laboratory section officer or chemical hygiene safety officer, with the unit safety officer, should develop a laboratory safety chemical hygiene plan to protect laboratory workers from harm due to the use of hazardous chemicals, such as xylene, alcohol, or formaldehyde solutions.

E-40. The chemical hygiene plan contains policies, procedures, and responsibilities for—

- The safe use, storage, and disposal of hazardous chemicals.
- Containment, neutralization, and cleaning of chemical spills.
- Use of appropriate work practices, engineering controls, administrative controls, PPE, and respiratory protection as required/recommended.
- Seeking medical attention in the event personnel develop signs or symptoms associated with exposure to a hazardous chemical.
- Meeting hazardous communications requirements.
- Training on the safe use and handling of chemicals, detecting the presence or release of a chemical, and the associated health hazards of the chemicals.

MEDICAL SAFETY

E-41. An effective medical safety management system must go beyond the minimum requirements found in regulations, codes, and standards. Therefore, the requirements of Environment of Care Essentials for Healthcare, published by the Joint Commission, should be implemented when possible.

E-42. Significant safety and health exposures that are unique to MTFs can affect patients and staff with potentially lethal consequences. A collaborative effort from the unit safety officer, specialty clinic representative, infection control services representative, and supply services representative is required to

coordinate the identification and elimination of hazards. Integrate the applicable safety procedures on the use, handling, storage, and maintenance of medical gases as provided in AR 700-68/DLAR (JS) 4145.25/NAVSUPINST 4440.128/MCO 10330.2D. Guidelines for implementing a medical safety program are provided in AR 385-10.

SHARPS SAFETY

E-43. Personnel must be aware of proper storage and disposal of needles and syringes. Used needles, unused needles, and any syringes with attached needles will be disposed of in sharps containers. Created sharps such as glass shards should be disposed of in puncture-proof containers.

REGULATED MEDICAL WASTE

E-44. Employment of the hospital center in CONUS, Alaska, Hawaii, and U.S. territories should adhere to state and local RMW requirements. Employment of hospitals during outside of CONUS deployments should adhere to HN final governing standards or to DODM 4715.05 Volume 4 and 5. Management of RMW should follow guidance provided in TM 3-34.56. See Appendix D of this publication for more information on hospital waste.

REPORTING UNSAFE AND UNHEALTHFUL WORKING CONDITIONS

E-45. All personnel have a responsibility to report unsafe or unhealthy working conditions that they may uncover in their routine activities. The section supervisor and unit safety officer should ensure notices of a hazardous condition are posted at the location if it cannot be abated within 15 days (for safety violations) or 30 days (for health violations). The section supervisor and unit safety officer should ensure a hazard abatement plan and a plan for improvement of hazardous conditions that cannot be abated within 15 days (for safety violation) or 30 days (for health violations) is developed and implemented.

ELECTRICAL SAFETY

E-46. Applicable Army, DOD, federal, national, and worldwide electrical safety consensus standards will be appropriately integrated into all Army systems and operations to mitigate risk of electrical related injuries and deaths. More specific electrical safety guidance, procedures, and techniques to protect Army personnel, facilities, and equipment against electrical hazards are addressed in ATP 3-34.45/MCRP 3-40D.17.

E-47. Electrical hazards will be mitigated to the lowest possible risk level in all operations. The section supervisor or unit safety officer should ensure the following:

- Electrical equipment should be free from recognized hazards and in good working order.
- Listed or labeled equipment should be used or installed in accordance with any instructions included in the listing or labeling.
- Equipment should have sufficient access to permit safe operation and maintenance.
- Electrical service outlets near sources of water are properly grounded.
- Tagout and remove from service all damaged receptacles and portable electrical equipment.

TRAINING REQUIREMENTS

E-48. Commanders are required to complete the commander's safety course. The course provides commanders the tools to manage their unit safety programs effectively and to incorporate risk management into all unit planning and activities.

E-49. Additional duty or collateral duty safety personnel are required to complete an online course, either the additional duty safety course or the collateral duty safety course. These courses focus on safety responsibilities for additional duty and collateral duty safety personnel at various levels of command. These courses establish the Army standard for trained and qualified additional and collateral duty safety personnel. Course completion will also satisfy the requirements for completing a local unit safety officer course.

E-50. Radiation safety officer training and experience must be commensurate with the radiation program for which they will be responsible. The designated radiation safety officer shall receive the appropriate training for a Level II radiation safety officer as referenced in AR 385-10. Infectious agents and toxins safety training for biological workers should be provided according to the requirements in DA Pam 385-69.

E-51. Specialized safety and health training appropriate to the work performed should be provided. Specialized training includes patient lifting, sharps, RMW, chemical hygiene, hazard communication, respiratory protection, PPE, and infection control. The U.S. Army Combat Readiness Safety Center and Army Public Health Center provide distance learning courses and classroom safety training for trainers.

SAFETY AWARDS PROGRAM

E-52. Safety awards enhance Army operations and improve safety awareness by recognizing and promoting individual and organizational accident prevention measures and successes. Criteria, policies, and procedures for nominating units and individuals for safety awards in this chapter are contained in DA Pam 385-10.

E-53. Army Accident Prevention Award of Accomplishment is an award presented to detachments, company-sized units, battalions or equivalent, brigades or equivalent, and divisions, installations, or activities that have completed 12 consecutive months, or a major training exercise, or an actual deployment of greater than 120 days without experiencing a Class A, Class B, or Class C accident.

E-54. Leaders at all levels should recognize the safe performance of individuals and subordinate organizations. Leaders are encouraged to develop awards tailored to recognize the accident prevention accomplishments within their spheres of activity, interest, or operation. Leaders may use DA Form 1119-1 (*Certificate of Achievement in Safety),* or are authorized to design and use locally produced certificates or trophies.

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Appendix F

Hospitalization and Specialized Unit Training Opportunities

Appendix F outlines the training opportunities available to hospitalization units and specialized surgical and medical augmentation units. Many of these opportunities are listed in the Army Training Requirements and Resources System, at the Defense Medical Readiness Training Institute, and through other physical or online locations. Collective and individual training tasks can also be accessed through the Army Training Network's Training and Evaluation Outline Task Search.

APPENDIX F IMPLEMENTS STANAG 2122

TRAINING OPPORTUNITIES

F-1. Leader development training and education for those assigned to Role 3 hospitals and specialized surgical and medical augmentation units is available through several courses at the U.S. Army Medical Center of Excellence and the Defense Military Readiness Training Institute, Joint Base San Antonio and Fort Sam Houston, Texas; Regional Training Sites-Medical located at Fort Eisenhower, Georgia; Fort McCoy, Wisconsin; and Camp Parks, California; along with various online courses. For example, the Field Hospital Trauma Management Course is based upon the injury patterns of combat casualties and the constraints to deliver medical care on the battlefield and in urban warfare. The course includes didactic instruction in patient care at Role 3 hospitals, triage, primary and secondary survey of combat casualties, combat airway management, combat extremity trauma, combat chest trauma, combat thermal burns, combat blood transfusions, combat wound management, antibiotics and pain control in the combat environment, and combat fluid maintenance. The FRSD leader course delineates the knowledge and skills needed by individuals assigned to an FRSD. Major areas covered include the duties and responsibilities of members of the FRSD, the organization of the BCT, doctrinal employment of BCT assets, and AHS support to BCTs and at EAB, to include the FRSD. The course is designed to build upon previous experience and training received in the basic officer leadership course, the brigade health care team course, and the captains career course. Regional training sites-medical provide many Role 3 training opportunities for both hospital capabilities and specific training for medical military occupational specialties assigned to a Role 3 hospital. Unit leaders should take every opportunity to allow medical providers and enlisted medical personnel to attend the courses listed below as applicable. Allowing attendance at various courses brings critical skills back into the units that can be shared and utilized in a deployed environment.

F-2. The U.S. Army Medical Center of Excellence's Deployable Medical Systems Equipment for Training Site and regional training sites-medical provide in-house and mobile team training that include:

- A hospital doctrine, tactics, and techniques class.
- A 40-hour field hospital course that includes:
  - Staking and layout.
  - Tent extendable modular personnel air supported
  - One- and two-sided expandable shelters.
  - Power distribution.
  - Water and wastewater distribution.
  - Complexing (includes both tent air supported and expandable shelters [attaching tents and shelters]).

TRAUMA TRAINING

F-3. Providing ongoing care for trauma patients in high-volume and high-acuity trauma centers is the basis of trauma competency for personnel assigned to Role 3 hospitals and specialized surgical and medical unit

personnel. Table F-1 provides examples of trauma related training courses designed to enhance trauma management skill sets of providers and selected enlisted personnel.

Table F-1. Examples of trauma related professional development training

Trauma Training Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
FRSD/OR personnel	Army Trauma Training Center (ATTC) (6H-F31/300-F18)	MEDCOE	14 days	Predeployment.
FRSD/PCAD personnel	Brigade Combat Team Trauma Training (BCT3) (300-68W(BCT3) (MT)	MEDCOE	5 days	Predeployment.
FRSD/PCAD personnel	Tactical Combat Medical Care (TCMC) (6H-F35/300-F38)	MEDCOE	5 days	Predeployment.
Medical Provider	Advanced Burn Life Support (ABLS) (6A-C4C[ABLS])	DMRTI	1 day	Predeployment, every four (4) years before expiration.
Medical Provider	Advanced Trauma Life Support (ATLS) (6A-C4[ATLS])	DMRTI	2.5 days	Predeployment, every four (4) years before expiration.
FRSD/PCAD personnel	Combat Casualty Care Course (C4) (6A-C4)	DMRTI	8 days	Predeployment.
FRSD/PCAD personnel	Pre-Hospital Trauma Life Support (PHTLS) (6A-C4[PHTLS])	DMRTI	2 days	Predeployment, every four (4) years before expiration.
61J, 61M, 62A, and 68D	Emergency War Surgery Course (EWSC)	DMRTI	2 days	Predeployment, every two (2) years.
61J, 61M, 62A, and 68D	EWSC Advanced Surgical Skills for Exposure in Trauma (ASSET)	DMRTI	2 days	Predeployment, every two (2) years.
61J, 61M, 62A, and 68D	EWSC Combat Orthopedic Trauma Surgery (COTS) +	DMRTI	2 days	Predeployment, every two (2) years.
Medical Provider and 68W	Tactical Combat Casualty Care (TCCC)	DMRTI	7 days	Predeployment, every four (4) years before expiration.
66E, 66F, 66S, and 66T	Trauma Nurse Core Course (TNCC) (A-C4[TNCC])	DMRTI	2 days	Predeployment, every four (4) years before expiration.
Medical Provider and 68W	NATO Emergency Management of Battlefield Injuries (EMBI)	NATO	5 days	Predeployment.

Legend:

DMRTI	Defense Medical Readiness Training Institute	NATO	North Atlantic Treaty Organization
FRSD	forward resuscitative and surgical detachment	OR	operating room
MEDCOE	Medical Center of Excellence	PCAD	prolonged care augmentation detachment

DISEASE AND NONBATTLE INJURY TRAINING

F-4. Table F-2 on page 211 lists examples of DNBI related training courses designed to enhance clinical management skill sets of providers and selected enlisted personnel.

Table F-2. Examples of disease and nonbattle injury related professional development training

Disease and Non-Battle Injury Training Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Medical Provider, 68C, 68W	Advanced Cardiac Life Support	Defense Medical Readiness Training Institute	1 day	Predeployment, every two (2) years before expiration.
Medical Provider, 68C, 68W	Pediatric Advanced Life Support	American Heart Association	1 day	Predeployment, every two (2) years before expiration.
Medical Provider, 68C, 68W	Tropical Medicine and Traveler's Health	Civilian	12 weeks	Once during military career.
Medical Provider, 68C, 68W	Military Tropical Medicine	Defense Centers for Public Health	4 weeks	Once during military career.
Medical Provider, 68C, 68W	Global Medicine	Civilian	14 days	Once during military career.

HOSPITALIZATION FOCUSED TRAINING

F-5. Table F-3 lists examples of hospitalization-focused training courses designed to enhance several facets of hospitalization.

Table F-3. Examples of hospitalization focused professional development training

Hospitalization Focused Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Medical Provider and 68W	Field Hospital Trauma Management (6A-F19/300-F37)	MEDCOE	5 days	Once during military career.
70E and 68G	Medical Regulating Officer (MRO) (6I-F11/340-F6)	MEDCOE	2 weeks	Once during military career.
67E and 68Q	Pharmacy Operations (2608-F2/312-F2)	MEDCOE	5 days	Once during military career.
65C and 68M	Joint Field Nutrition Operations (2608-F1/325-F1)	MEDCOE	5 days	Once during military career.
68A	Telemedicine (United States Army) (326-F16)	METC	4 weeks	Predeployment, once during military career.
Selected Personnel	Hospital Planning and Staking (HOSPITAL PLANNING AND STA)	RTS-MED	5 days	Predeployment, once during military career.
Selected Personnel	RTS MED Power Generation and Distribution Equipment (RTS-MED-PWR)	RTS-MED	5 days	Predeployment, once during military career.
Selected Personnel	Shelter Systems (SHELTER SYSTEMS)	RTS-MED	5 days	Predeployment, once during military career.
Selected Personnel	Transport Systems (TRANSPORT SYSTEMS)	RTS-MED	5 days	Predeployment, once during military career.
Selected Personnel	Water Distribution and Wastewater Collection (WATER)	RTS-MED	5 days	Predeployment, once during military career.
Selected Personnel	M1022/M1022A1 Dolly Transport System (RTS-MED-DOLLY)	RTS-MED	5 days	Predeployment, once during military career.
68A, 68D, 68E, 68G, 68J, 68K, 68M, 68P, and 68Q	RTS-MED sites host specific hospital MOS training that can be accessed in ATRRS using the school code 930F.	RTS-MED	5 days	Predeployment, once during military career.

Legend:
ATRRS Army Training Requirements and Resources System
MEDCOE Medical Center of Excellence
METC Medical Education and Training Campus
MOS Military Occupational Specialty
RTS-MED Regional Training Site-Medical

DISASTER MEDICINE PROGRAM TRAINING

F-6. Table F-4 lists examples of disaster related training courses in support of the defense CBRN Response Force (DCRF) mission when in support of the joint task force-civil support.

Table F-4. Examples of disaster medicine program focused training

Disaster Medicine Program Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Selected Personnel	Federal Coordinating Center (FCC)	DMRTI	2.5 days	Pre-DCRF, every two (2) years.
Selected Personnel	Hospital ICS (HICS)	DMRTI	2 days	Pre-DCRF, every two (2) years.
Selected Personnel	ICS 300 - Intermediate	DMRTI	2.5 days	Pre-DCRF, every two (2) years.
Selected Personnel	ICS 400 - Advanced ICS	DMRTI	2 days	Pre-DCRF, every two (2) years.
Selected Personnel	Joint Humanitarian Operations	DMRTI	2 days	Pre-DCRF, every two (2) years.
Legend:				
DCRF	Defense CBRN Response Force	HICS	Hospital Incident Command System	
DMRTI	Defense Medical Readiness Training Institute	ICS	Incident Command System	
FCC	Federal Coordinating Center			

CHEMICAL BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR TRAINING

F-7. Similar to supporting defense chemical, biological, radiological, and nuclear response force, table F-5 lists examples of CBRN training courses designed to enhance CBRN clinical management skill sets of medical providers and selected enlisted personnel. Table F-6 on page 213 depicts emergency preparedness response training in support of defense chemical, biological, radiological, and nuclear response force.

Table F-5. Examples of chemical biological, radiological, and nuclear focused training

Chemical Biological, Radiological, and Nuclear (CBRN) Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Medical Provider and 67B, C, and E	Medical Management of Chemical and Biological Casualties (MCBC) (6H-F26)	USAMRIID USAMRICD	6 days	Once during military career, predeployment based upon threat assessment.
Medical Provider, 68C, 68W	Field Management of Chemical and Biological Casualties (FCBC) (6H-F37/300-F31)	USAMRICD	5 days	Once during military career, predeployment based upon threat assessment.
Medical Provider, 68C, 68W	Medical Management of Biological Casualties (MMBC) (DHA-US071)	JKO	Online	Predeployment, every three (3) years before expiration.
Medical Provider, 68C, and 68W	Emergency Preparedness Response Course (EPRC): CBRN basic Awareness Course (DMRTI-US019)	DMRTI	Online	Predeployment, every three (3) years before expiration.
Medical Provider, 68C, 68W	EPRC: CBRN Operator Short Course (DMRTI-US021)	DMRTI	Online	Predeployment, every three (3) years before expiration.
Medical Provider, 68C, 68W	EPRC: CBRN Clinician Short Course (DMRTI-US017)	DMRTI	Online	Predeployment, every three (3) years before expiration.

Table F-5. Examples chemical biological, radiological, and nuclear focused training (continued)

Medical Provider, 68C, and 68W	EPRC: CBRN for Medical platoon Personnel and First Responders (DMRTI-US018)	DMRTI	Online	Predeployment, every three (3) years before expiration.
Medical Provider, 68C, and 68W	EPRC: CBRN Executive Commander Course (DMRTI-US024)	DMRTI	Online	Predeployment, every three (3) years before expiration.
Medical Provider, 68C, and 68W	Hospital Management of Chemical, Biological, Radiological, Nuclear and Explosive Incidents (HM-CBRNE) (61-F10/340-F5)	USAMRICD	5 days	Predeployment, every three (3) years before expiration.

Legend:

DMRTI	Defense Medical Readiness Training Institute	USAMRIID	U.S. Army Medical Research Institute of Infectious Diseases
EPRC	Emergency Preparedness Response Course	USAMRICD	U.S. Army Medical Research Institute of Chemical Defense
JKO	Joint Knowledge Online		

Table F-6. Examples of emergency preparedness response training

Emergency Preparedness Response Courses (EPRC) (Chemical Biological, Radiological, and Nuclear [CBRN]) Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Selected Personnel	EPRC-Basic	DMRTI	2 hours	Pre- defense CBRN response force (DCRF), every two (2) years.
Selected Personnel	EPRC-Clinician	DMRTI	1 days	Pre-DCRF, every two (2) years.
Selected Personnel	EPRC-Executive Commander	DMRTI	1 day	Pre-DCRF, every two (2) years.
Selected Personnel	EPRC-Operator	DMRTI	1 day	Pre-DCRF, every two (2) years.
Selected Personnel	EPR-Refresher/Sustainment	DMRTI	4 hours	Pre-DCRF, every two (2) years.

Legend

DMRTI	Defense medical Readiness Training Institute	EPRC	Emergency Preparedness Response Course

PATIENT MOVEMENT TRAINING

F-8. Table F-7 on page 214 lists examples of PM related training courses that will provide additional insight of PM technique on the modern battlefield, to include joint, NATO, large-scale combat operations, and prolonged care.

Table F-7. Examples of patient movement focused training

Patient Movement Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Medical Provider, 66S, 66T, and 68W	Joint En route Care (6A-F12/300-F26)	DAM, ACoE	14 days	Once during military career, for 66-series every 3 years, predeployment based upon threat assessment.
70E and 68G	Medical Evacuation Doctrine (2C-F7/300-F10 [MC])	DAM, ACoE	2 weeks	Once during military career, predeployment based upon threat assessment.
61J, 66S, and 68V	Critical Care Air Transport (Initial) (6A-F13/300-F27)	MEDCOE	2 weeks	Once during military career, predeployment based upon threat assessment.
61J, 66S, and 68V	Critical Care Air Transport (Advanced) (6A-F13/300-F28)	MEDCOE	3 weeks	Once during military career, predeployment based upon threat assessment.
70E and 68G	NATO Patient Evacuation Coordination Cell (PECC)	NATO	5 days	Once during military career, predeployment based upon threat assessment.
Legend: ACoE Aviation Center of Excellence DAM Department of Aviation Medicine MEDCOE Medical Center of Excellence NATO North Atlantic Treaty Organization				

MEDICAL PLANNING TRAINING

F-9. Table F-8 lists examples of medical planning related training courses that will enhance the ability to train and plan hospitalization, forward surgical, and prolonged care at division and below when operating Jointly or as an Army pure force.

Table F-8. Examples of medical planning focused training

Medical Planning Courses				
Audience	***Course Title***	***Proponent***	***Duration***	***Frequency***
Selected Personnel	Joint Medical Operations Course (JMOC) - Basic	DMRTI	5 days	Once during military career.
Selected Personnel	JMOC - Advanced	DMRTI	5 days	Once during military career.
Selected Personnel	Joint Medical Planning Tool Course (JMPT)	DMRTI	5 days	Once during military career.
Selected Personnel	Joint Senior Medical Leaders Course (JSMLC)	DMRTI	5 days	Once during military career.
Selected Personnel	Division Surgeon	MEDCOE	5 days	Once during military career.
FRSD/PCAD personnel	Brigade Health Care Team (6A-F27/300-F46)	MEDCOE	2 weeks	Once during military career.
FRSD personnel	Forward Resuscitative and Surgical Detachment (FRSD) (7M-F11)	MEDCOE	5 days	Once during military career.
68Ws	Medic Master Trainer (300-F45)	MEDCOE	4 weeks	Once during military career.
Legend: DMRTI Defense Medical Readiness Training Institute FRSD Forward Resuscitative and Surgical Detachment MEDCOE Medical Center of Excellence PCAD Prolonged Care Augmentation Detachment				

REHEARSALS

F-10. After completing training, Role 3 hospital and specialized surgical and medical augmentation unit personnel should refine their newly acquired skills using frequent and realistic rehearsals. Rehearsals reinforce newly acquired skills and help personnel become more confident and efficient in planning, establishing, disestablishing, and rapidly relocating the unit. This is especially helpful when frequent displacement, movement, and setup is likely.

TACTICAL STANDARD OPERATING PROCEDURES

F-11. The TACSOP is important in training and should be grounded in doctrine but detailed and prescriptive in nature. TACSOPs should be clear and concise and reflect procedural guidance that supports the mission and doctrinal requirements. A well-written TACSOP outlines how battle rhythm events, daily operations, and the duties and responsibilities of individual positions within an organization are executed. The TACSOP provides step-by-step instructions compiled by a unit to help personnel carry out complex routine operations. The aim of the TACSOP is to achieve efficiency, quality output, and uniform performance while reducing miscommunication and failure to comply with regulations and standards. Each TACSOP should clearly articulate those critical tasks that personnel should accomplish for each collective task and by position for the organization to be successful. This is especially important if a primary team member is absent, and another member or members of the unit should fill the position. For the Role 3 hospital, development and maintenance of clinical practice guidelines is the responsibility of the deputy commander of clinical services, chief of surgical services, and the deputy commander of nursing. For the FRSD, development and maintenance of clinical practice guidelines is the responsibility of the general surgeon appointed as chief. The Role 3 hospital and specialized surgical and medical augmentation units should base their TACSOPs on the TMC and MEDBDE TACSOPs and refine them based on the OE.

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Appendix G

Hospitalization Information Systems

The purpose of this appendix is to provide an overview of medical information and communication systems (and personnel responsible for maintaining these systems) and how they are employed to optimize care and enable C2 for the Role 3 hospital center (with subordinate field hospital and medical augmentation detachments). The hospital center is modular in design. This design allows a bed capacity range from a 32 (field hospital [32-bed]) to full bed capacity designated in the orders process (complete hospital center), which will require information and communication platforms that are employed in dynamic contiguous and noncontiguous AOs. Specifically, battle command and health information systems enable effective planning, preparing, decision-making, and execution of mission objectives.

SECTION I – OVERVIEW

G-1. The HHD hospital center S-6 has a signal officer (25A00) in the grade of O-3 serves as the officer in charge and a signal support specialist (military occupational specialties 25U3O) who serves as the NCO in charge for the S-6 section. The S-6 is responsible for all aspects of automation and communications electronics for the Role 3 hospital. These personnel determine signal requirements, capabilities, and operations to meet the hospital commander's intent.

G-2. The field hospital (32-bed) has a health services system management officer (70D67) in the grade of O-3, an information technician team chief (25B3O), a section chief (25U3O), four addition information technician specialists (25B1O) and a signal maintenance specialist and signal tactical network specialist (both 25U1O). The health information systems officer and information services technicians are employed within the operations section.

G-3. The hospital center S-6 and field hospital (32-bed) signal and health information system officer work closely together to provide signal support and health information system capabilities to the entire Role 3 hospital center. These capabilities include advice and consultation on signal and health information systems used throughout the hospital and subordinate elements. These sections ensure internal and external communication connectivity within the hospital and subordinate elements.

G-4. When the hospital center is task organized with two field hospitals (32-bed), the signal and health information system personnel will combine to form a more robust signal and health information system section to support the expanded hospital center.

Note. For planning considerations, signal support requirements are communicated via Annex H of an operations order (see FM 6-0 for template). It is imperative that the Annex H is completed correctly to ensure that the supporting signal unit can provide adequate signal support. Failure to do this could result in degraded communications and have severe impact on information technology systems.

G-5. Given a dynamic theater environment and vast array of battle command and health information systems, it is key for all information management and information technology personnel be fully trained and engaged in their prescribed duties to ensure mission success. Below are some of the assigned communication and information systems the S-6, health information systems officer and S-3 should be familiar with. This list is not all-encompassing. As virtual health and other new technologies and advanced medical devices are developed and mature, this list will grow.

SECTION II – TACTICAL COMMUNICATIONS SYSTEMS

G-6. Joint Battle Command Platform, commonly referred to as Blue Force Tracker, uses L-Band satellite link for situational understanding in near real time, preformatted message templates for 9-line MEDEVAC requests, medical resupply, and logistics support. This is a common platform at brigade and below.

G-7. Single Channel Ground Airborne Radio System is a frequency modulated tactical, encrypted voice, vehicle-mounted or stand-alone radio system. It is used for C2, administration, logistics, intelligence, operations, and other networks.

G-8. The tactical satellite single channel radio provides beyond line-of-sight encrypted voice and limited data transmission to assigned users on a global scale.

G-9. The 150-watt high-frequency radio system is also a beyond line-of-sight encrypted voice and available email application for assigned users on a global scale. A time-tested system dating back to WWII, high frequency utilizes the earth's atmosphere to radiate its transmission signal anywhere in the world. High frequency does require a trained operator familiar with its unique capabilities.

SECTION III – INFORMATION TECHNOLOGY SYSTEMS

G-10. The OMIS-A system is designed to digitally capture patient encounter treatment data using the Armed Forces Health Longitudinal Technology Application-Theater and Theater Composite Healthcare System Cache in deployed environments, enhance continuity of care, and enable each Soldier to have a comprehensive electronic health record (the Role 3 hospital should use AR 40-66 and AR 40-400 as applicable). It also enables the management of Class VIII using Defense Medical Logistics Standard Support and Defense Customer Assistance Module. For the full listing of the TMIP-J suite of applications, see table G-1 on page 219.

G-11. Command Post of the Future enables commanders to visualize the battlefield and plan the mission through a dynamic view of critical resources and events.

G-12. Transportation Coordinators' Automated Information for Movement Systems II is designed to enable users to manage all aspects of transportation operations. It provides automated support to functions performed by a wide range of users from unit movement officers to installation transportation officers, to mode managers responsible for transportation and distribution in support of the full continuum of operations.

G-13. The Combat Service Support Automated Information Systems Interface allows current and emerging battlefield combat service support automation devices to electronically exchange information via tactical networks. This system also interfaces with other operational and institutional force automated systems and provides unit commanders and logistics managers with an interface device to support combat service support doctrine across the range of military operations. This capability supports noncontiguous concentrations of users and the transfer of real-time information in both fixed and mobile operating environments.

G-14. Very Small Aperture Terminal provides a worldwide satellite communications network, engineering services, integrated logistics support, infrastructure, and portable remote terminal units in support of logistics information systems operating from garrison or deployed within the OE.

SECTION IV – JOINT OPERATIONAL MEDICINE INFORAMTION SYSTEMS

G-15. The Joint Operational Medical Information Systems (JOMIS) provides interoperable medical information technology capabilities to the warfighter across the range of military operations. This system allows decision-makers, medical logisticians, planners, and healthcare providers with joint operational medicine health information software solutions. The JOMIS connects data across the continuum of care. The JOMIS spans domestic and international conditions and helps caregivers provide the best care possible wherever and whenever it is needed JOMIS provides senior leaders with the information necessary to make tactical decisions based on available medical information.

G-16. All software on JOMIS was developed according to the joint technical architecture and is common operating environment compliant as mandated by the Joint Requirements Oversight Council. JOMIS is

comprised of TMIP-J software and Army-specific applications interfacing with the Army infrastructure (hardware and communications). The JOMIS Program Management Office is responsible for integrating the joint medical software applications on Army baseline systems, new equipment fielding, new equipment training, pre- and during deployment support, and technical and maintenance of the JOMIS hardware and systems.

JOINT OPERATIONAL MEDICINE INFORMATION SYSTEMS

G-17. Table G-1 contains descriptions of current TMIP-J software applications that are integrated within the JOMIS and OMIS-A baseline systems. Although functionality does not change, the software that JOMIS delivers to meet the required functionality is being modernized to include the Military Health System Genesis-Theater application and other applications supporting operational medicine.

Table G-1. Joint operational medicine information systems applications

System	*Description*
Armed Forces Health Longitudinal Technology Application—Theater (AHLTA-T)	The AHLTA-T application resides on a laptop computer configured as a stand-alone server or on a large server with several laptop clients. This application allows deployed medical staff/clinicians to document encounters. It enables clinicians to document the diagnosis, update provided care, and track sicknesses at deployed locations in a standardized format. Medical staff are enabled to document the same information noted above, except for making and recording a diagnosis. It also handles the recording and reporting of individual and mass immunizations in the operational environment. Completed encounters, are stored locally, sent to TMDS, imported into the Defense Health Agency's medical common operating picture application and forwarded to the Military Health System Data Repository where the patient's longitudinal electronic medical record is stored. Regardless of network or internet connectivity, AHLTA-T supports the documentation of care with its store and forward capability.
Military Health System (MHS) GENESIS-Theater (MHSG-T)	MHS GENESIS-Theater provides Role 3 operational medicine sites with a robust electronic health record (EHR) solution for management and documentation of patient care. MHSG-T is the theater configuration of MHS GENESIS, the Department of Defense's name for the federal electronic health record. MHSG-T supports theater hospitals, forward resuscitative sites, hospital ships, naval surface ships, and submarines. It replaces legacy operational medicine health record components. MHSG-T allows healthcare providers to document clinical and dental care while operating independently in disconnected, intermittent, and low-bandwidth (DIL) environments. When operating in a comms-enabled environment, MHSG-T supports patient care data exchange through the Operational Medicine Data Service (OMDS) which feeds data from the point of injury to MHS GENESIS at military treatment facilities. In addition to providing a robust and modernized EHR, MHSG-T can also scale to fit changes in facility conversion of Role 4 MTFs into Role 3 care facilities in military contingency planning.
Theater Composite Health Care System (CHCS) Cache (TC2)	The TC2 application is used to document inpatient health care, outpatient order entry, and results retrieval. Completed encounters are stored locally, sent to the TMDS, and imported to medical situational awareness in the theater (MSAT) or the Defense Health Agency's medical common operating picture application. Currently, TC2 data does not move from TMDS to the clinical data repository.

Table G-1. Joint Operational Medicine Information Systems Applications (continued)

System	*Description*
Theater Medical Data Store (TMDS)	The Theater Medical Data Store (TMDS) is a Non-Classified Internet Protocol Router Network (NIPRNet)-based web system that allows clinicians and caregivers worldwide to view individual inpatient and outpatient records for those treated in an operational environment, and for patients who continue care at Role 4 MTFs. TMDS allows providers to view and document a patient's complete operational electronic health record. TMDS allows users to compile health histories from various electronic military health care systems within the operational environment. The records are also captured as a part of the Soldier's lifelong medical records. TMDS provides access to the joint longitudinal viewer (JLV) portal, patient tracking, and is the theater blood inventory management system.
Deployed Tele-Radiology System (DTRS)/Theater Image Repository (TRI)	Manages, transfers, and stores theater medical images.
Maritime Medical Modules (MMM)	Manages and tracks medical logistics data aboard ships and submarines
Medical Common Operating Picture (MedCOP)	MedCOP is the Joint Health Services' mission command platform that provides real-time visibility of unit health, equipment and supplies to enable informed decisions. MedCOP is an interactive, decision-support platform that arms command surgeons and medical commanders with real-time health surveillance and medical operations visibility to enable more-informed decisions. The web-based capability, managed by the JOMIS program office, facilitates real-time operational medicine information sharing and collaboration inside and outside the medical community. MedCOP consolidates data from multiple disparate data sources and supports data synchronization across multiple network domains to provide a universally accessible, situationally relevant, and globally integrated medical common operating picture. MedCOP is deployed to combatant command and service medical command, control, communications, computers, and intelligence users at multiple echelons. MedCOP automates data entry and provides intuitive, customizable, and shareable dashboards for strategic, operational, and tactical level operations and enables collaboration across domains and enclaves through chat, file sharing, and other tools. MedCOP replicates global data across combatant commands (CCMDs) and provides access closer to the tactical edge and allows for Annex Q reporting (beds, equipment, supplies, personnel, and labs), facility management, global awareness, and provides enhanced situational awareness across the Department of Defense. MedCOP provides fully accredited integration with joint command and control mission systems, including Army and CCMD service staff, operations, and intelligence systems.
Defense Medical Logistics Standard Support (DMLSS) / Defense Customer Assistance Module (DCAM)	The DMLSS system is an automated information system for Role 3 Army hospitals, U.S. Air Force expeditionary medical facilities, U.S. Navy hospital ships, and expeditionary force hospitals. The only DMLSS modules currently being used by deployed Army medical forces is DCAM. The DCAM application was deployed to support Army maneuver units. The Equipment and Technology Management module has a maintenance management submodule that automates the medical maintenance functions in the Role 3 hospital. The hospital uses this DMLSS module to manage the complex maintenance requirements for all assigned medical devices.
United States Transportation Command Regulating and Command and Control Evacuation System (TRAC2ES)	The TRAC2ES application is a web-based portal that provides patient transportation information and in-transit visibility to the defense transportation community and medical support information to medical facilities. TRAC2ES combines transportation, logistics, and clinical decision elements that enable prioritized requirements, resource allocation, and supports tactical and strategic operations.

Table G-1. Joint Operational Medicine Information Systems Applications (continued)

System	*Description*
Corporate Dental System (CDS)	Suite of applications for dental treatment, digital image management, and dental readiness reporting at clinics and forward deployed site
Dental Common Access System (DENCAS)	Stores, processes, and retrieves data to maintain dental readiness of the command.

Legend:

AHLTA-T	armed forces health longitudinal technology application—theater	MedCOP	medical common operating picture
CCMD	combatant commands	MHS	military health system
CDS	corporate dental system	MHSG-T	military health system genesis-theater
CHCS	composite health care system	MMM	maritime medical modules
DCAM	defense customer assistance module	MSAT	medical situational awareness in the theater
DENCAS	dental common access system	MTF	medical treatment facility
DIL	disconnected, intermittent, and low bandwidth	NIPRNet	non-classified internet protocol router network
DMLSS	defense medical logistics standard support	OMDS	operational medicine data service
DTRS	deployed tele-radiology system	TC2	theater composite health care system cache
EHR	electronic health record	TMDS	theater medical data store
JLV	joint longitudinal viewer	TRAC2ES	united states transportation command regulating and command and control evacuation system
JOMIS	joint operational medicine information system	TRI	theater image repository

Note. Medical Communications for Combat Casualty Care is transitioning to OMIS-A. OMIS-A will continue to develop, integrate, and field the Army's electronic health record software capabilities to operational Soldiers worldwide.

OTHER APPLICATIONS

G-18. Table G-2 describes software applications that are Army-specific or provided by other programs outside of the JOMIS program management office.

Table G-2. Other applications

System	*Description*
Joint Theater Trauma Registry (JTTR)	The JTTR is a stand-alone, store-and-forward application on joint operational medicine information system (JOMIS) laptops used by deployed tri-Service nurse coordinators to collect battlefield injury demographics, care, and outcomes for both military and civilian patients. The JTTR is the largest injury database in existence, enabling senior leaders and researchers to study the information collected to uncover new ways to save lives on the battlefield through improved protective equipment and lifesaving procedures. Data collected has already paid dividends by way of improved body armor, field tourniquets, and bandages with clotting agents. The JTTR program facilitates the creation of trauma records that are transferred to, and maintained by, the United States Army Institute of Surgical Research.
Patient Movement Item Tracking System (PMITS)	The PMITS application tracks the storage of patient movement items during peacetime and their movement during contingency and wartime operations. This application directly supports the sustainment mission by ensuring critical patient movement equipment is available to evacuate critically injured Soldiers. Commanders use PMITS to manage and redistribute patient movement item assets to avoid shortages during patient evacuations. The PMITS application can show location and status of patient movement item assets to assist in eliminating shortages and overages of essential patient evacuation equipment.

Table G-2. Other Applications (continued)

System	*Description*
Theater Blood-Mobile (TBLD-M)	The TBLD-M application is used by medical units to collect, track, disposition, and report blood products in the deployed environment. This application allows deployed medical units managing blood assets to document inventory, collections and testing, and final disposition of blood and blood products. Once captured, this information can be used by the medical detachment (blood support) and other blood supply elements for blood tracking and reporting through the TBLD-M application.
Travel Vaccination Application (TRAVAX)	This application is a web-based portal that provides medical professionals access to medical information to prepare Soldiers and travelers for health threats and other concerns related to international travel. It supplements DOD medical information with data integrated from international and regional health organizations plus additional information and analysis developed collaboratively through a network of trusted medical advisors. This information is also integrated into the Defense Health Agency‘s medical common operating picture application.
Medical Protection System (MEDPROS)	The MEDPROS application was developed by the Army Medicine to track all immunization, medical readiness, and deployability data for all active and reserve components of the Army as well as civilians, contractors, and others. It is a powerful tool that allows the chain of command to determine the medical and dental readiness of individuals, units, and task forces. Commander’s and medical leaders at various echelons are responsible for the use and implementation of MEDPROS to measure unit/individual medical readiness status. The electronic postdeployment health assessment is a suite of software used by deployed medical providers to document a Soldier’s current physical and psychological health status on a DD Form 2796 *(Post Deployment Health Assessment [PDHA])* prior to the Soldier’s return from deployment. The website link will be on the JOMIS laptop and accessible from standard computers.
Global Combat Support System-Army (GCSS-A)	GCSS-A subsumed multiple legacy Standard Army Management Information Systems to combine ground maintenance, unit supply, property management, warehouse management, and finance into an enterprise resource planning system. As such, it is the principal warfighting system for logisticians to achieve readiness and support operations across multiple domains. Having a consolidated, integrated database for those functions gives both sustainers and supported commander’s up-to-date visibility of the resources that can be used to weight the operation. GCSS-A uses a commercial off-the-shelf system run on system applications and products-based software. GCSS-A meets congressionally mandated auditability requirements and provides the logistician with total tactical-level supply chain and equipment health visibility. The product has been fully fielded but continues to add improved functionality to the baseline. Sustainment Automation Support Management Offices provide tactical support to GCSS-A systems.

Legend:

DD	Department of Defense Form	MEDPROS	Medical Protection System
DOD	Department of Defense	TBLD-M	Theater Blood-Mobile
GCSS-A	Global Combat Support System-Army	TRAVAX	Travel Vaccination Application
JOMIS	joint operational medicine information system		

JOINT TRAUMA SYSTEM

G-19. The Joint Trauma System is an organized approach to providing the improved trauma care across the continuum of care to trauma patients, battle and nonbattle injuries. The Joint Trauma System is dedicated to the reduction of morbidity and mortality of combat patients and is engaged in a systematic fashion to determine the acute and long-term outcomes of patients, the quality of their care, improvements in prevention and treatment, and logistical considerations. The Joint Trauma System addresses all components identified with optimal care of a patient from prevention through acute care, rehabilitation, and RTD. For additional information, refer to the United States Army Institute of Surgical Research, Joint Trauma System website.

G-20. The Joint Theater Trauma Registry is part of the TMIP-J and supports the capture of theater trauma care information across the continuum of trauma care, from the deployed AO to garrison-based Role 4 hospitals. Trauma information collected and reported by the Joint Trauma Registry includes trauma care

and outcomes for military and civilian patients. This information combined with Armed Forces Medical Examiner data in a central repository is provided to the DOD for use in the requirements development process to enhance medical care in future operations.

SAMPLE HEALTH INFORMATION SYSTEMS TRAINING

G-21. Table G-3 provides a sample approach to properly training on the employment of health information systems for a MTF. Successful employment of JOMIS systems involve a coordinated effort between the Army signal community, health information system officers, and clinical leaders. Log into the Army Training Network (known as ATN) to download collective and individual tasks. These tasks have been developed and approved by the Army Training Development Capability (known as TDC) and hosted on the Central Army Registry (known as CAR) to develop unit training plans.

Table G-3. Sample health information system training strategy

	Focus	***Tasks***	***Purpose***
Individual Tasks	System Administration	Complete JOMIS system administration training	S-6 section trained as JOMIS system administrators
		Set up the JOMIS for operation	Update server and client images. Computer names and passwords standardized
		Prepare the JOMIS for operation	AHLTA-T, TC2, DCAM, TMDS, and MedCOP accounts prepared
		Employ the JOMIS	Test network with organic two-way satellites and peripherals; connect to TMDS/MedCOP servers
	Clinical Operations Integration	Create shared understanding of JOMIS applications	Clinical and operational staff reviews health information system overview and develop user role/accounts
		Functional user training	Complete all health information systems functional training as it pertains to respective clinical role

Table G-3. Sample health information system training strategy (continued)

	Focus	*Tasks*	*Purpose*
Collective Tasks	OMIS-A Workflow Validation	Develop hospital technology layout plan	S-6 and clinical operations staffs create health information systems topology and layout for respective MTF setup
		Develop training patient scenarios	Coordinate with internal and external resources to ensure patient scenarios are prepared and meet respective AHLTA-T/ TC2 application parameters
		Order sets and templates	Coordinate with clinical operations staff for initial order set review and validation
	Rehearsal	Communications exercise	Conduct communication exercise to test entire system connectivity and verify user accounts
		Exercise operations under degraded conditions	Establish manual notification procedures
	Certification	Establish and utilize JOMIS network	Successfully incorporate and validate entire health information systems scope of operations in support of medical command and control

Legend:

AHLTA-T	Armed Forces health longitudinal technology application-theater	MTF	medical treatment facility
DCAM	DMLSS customer assistance module	OMIS-A	operational medicine information systems - Army
JOMIS	joint operational medicine information system	S-6	Signal Office
MedCOP	medical common operating picture	TC2	theater composite health care system cache
		TMDS	theater medical data store

Appendix H

Hospitalization Role in Telemedicine

Appendix H provides a brief description of telemedicine in the Role 3 hospital and those techniques that may increase the survivability of Soldiers. It covers the aspects of telemedicine (virtual health) best practices, planning, security, and documentation. The Role 3 hospital should establish detailed telemedicine procedures in its unit TACSOP.

TELEMEDICINE

H-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. Telemedicine can be useful in stability and DSCA OEs. During large-scale combat operations, our peer threats equate an electromagnetic signature larger than a platoon a lucrative target. Telemedicine may be used but extreme caution should be exercised as use of telemedicine results in electromagnetic signatures that may provide a signal that can be triangulated by the enemy, allowing the exact location of the signal to be pinpointed.

H-2. Operational virtual health provides the resource of clinical expertise to the point of need. When clinicians managing patients reach the limits 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 without placing additional resources at risk. More importantly, telemedicine has improved the care provided to the patient. Telemedicine provided during high-fidelity medical simulation of prolonged care has been demonstrated to reduce mortality and improve quality of care provided by less-experienced medical providers.

H-3. 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

H-4. 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 (medical provider) at a Role 3 hospital guiding another medical provider through a procedure or treatment of a wounded Soldier. This guidance enables the other medical provider to make an accurate assessment of the patient’s condition and treat the patient according to the guidance provided by the mentor. Telementoring offers a viable adjunct to health care to increase the capability of a caregiver and thus increase capacity to manage patients in a deployed setting. Telementoring is not intended for use on every patient; it is used on an "as needed" basis and is METT-TC (I) dependent.

H-5. Every deployed health care professional 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 healthcare professionals to support the warfighter. Telementoring may be accomplished by—

- Minimum: Voice telephone call with next higher role of healthcare provider reading from DD Form 1380 and a locally produced teleconsultation script.
- Better: Voice connection with concurrent email or photo exchange (for example, send a photo of the call script, vital signs flowchart, and a locally produced teleconsultation report, such as a prolonged care flowsheet, locally produced teleconsultation report, such as a prolonged care flowsheet the patient care environment, and available kit), closely followed by a phone call.

- Best: Real-time audio or video feeds, with or without remote diagnostic equipment, using the teleconsultation script as a guide. And for emergent, use the joint trauma system recommend virtual critical care consultation guide and send a picture or patient capabilities as well as vital sign trends to the consultation via email or message using appropriate operational security and protections of patient privacy.

TELECONSULTATION

H-6. 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. For most routine cases, asynchronous consultation is often sufficient. For urgent and emergent cases, voice communications, plus or minus images sent via electronic means, is recommended. Healthcare providers should review clinical practice guidelines for more detailed information on emergent, urgent, and routine teleconsultation indicators.

Emergent

H-7. Healthcare providers should recognize when to use teleconsultation. If available, continuous monitoring for an extended consultation (for example, tele-critical care) should be employed, METT-TC (I) dependent. Emergent consults are for patients with critical wounds, illness, or injury. Indications to consider critical care consultation may include—

- Vital signs are very abnormal for more than 30 minutes.
- Unfamiliarity with the medical issues.
- 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.
- 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).
- Chemical patient.

Urgent

H-8. 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 from communication between the healthcare provider and remote consultant. Specialties may include—

- General and orthopedic surgery.
- Emergency medicine.
- Burns.
- Pediatrics.
- Infectious disease.
- Obstetrics or gynecology.
- Dental.

Routine

H-9. 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 healthcare 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 caregivers to use urgent consultation systems.

H-10. To conduct routine consults, use the Global Teleconsultation Platform. The platform requires a username and password, which you must request through its website. By taking this step, you will establish the necessary credentials to access the platform and complete your routine consults efficiently.

SPECIAL CONSIDERATIONS FOR BEHAVIORAL HEALTH PATIENTS DURING TELECONSULTATION

H-11. Role 3 behavioral health personnel 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.
- Symptoms that could be exacerbated by video teleconference (for example, ideas of reference, psychosis, or thought insertion).
- Information that should be shared in person.
- Hearing, visual, or cognitive deficits that limit the patient's ability to fully participate.
- 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 home station behavioral health provider.
  - Second opinion evaluations from a consultant.

H-12. The Role 3 may have to contact the combat and operational stress control detachment operating in the AO for teleconsultation support. Role 3 behavioral health personnel should use the minimum, better, best method to ensure a good teleconsultation session.

OPERATIONAL TELEMEDICINE BEST PRACTICES

H-13. Telemedicine, unfortunately, has one major limitation-it requires network resources. If the network is not available, it is not possible to conduct telemedicine. 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 an adaptable solution for using telemedicine in very austere locations. Table H-1 provides operational telemedicine best practices.

Table H-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

H-14. 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 should use words, and sometimes images, to understand what is happening locally and then should effectively communicate the recommendations. The following tips may help improve this inefficiency:

- To improved telemedicine efficiency, a 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 flow sheets 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.

H-15. 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 H-2.

Table H-2. Best practices for telemedicine support in an area of operations

First, the unit needs to ensure that the operational environment allows the use of telemedicine due to mission, enemy, terrain and weather, troops and support available, time available, civil considerations, and (informational considerations) implications.
Telemedicine is a skill that should be practiced by both local caregivers and remote experts for interactions to be efficient and effective. Ideally, the care team should train together using simulated patient care to optimize communication and ensure the technology choices match the clinical needs.
Prior to travelling to the area of operation, care teams should develop a communication plan for telemedical support (Primary, Alternate, Contingency, and Emergency). This includes when and how (technology) to use telemedicine.
Local caregivers should 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 send that documentation with a summary of recommendations to the local caregiver.
Solve technical challenges using a well-developed and practiced communication plan.

H-16. Health care professionals should send images of patients and care context to remote experts before starting a telemedicine encounter. This helps the remote expert 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. This makes use of telemedicine during large-scale combat operations is difficult as more time is needed to transfer large amounts of data meaning you remain a target the entire time data is being transferred which impacts survivability. Per DODI 6025.18, 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 its location, affiliation, or other information that could be used against it (for example, media implications of the image) should not be included.

Note. Digital photos may also contain "geotags" that can provide the exact location where it was taken. This feature needs to be disabled on the electronic device taking the photo.

COMMUNICATION PLANNING FOR TELEMEDICINE

H-17. 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 a PACE communication plan is shown in table H-3.

Table H-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 (for example, video teleconference, exam station, room camera, augmented reality device, and peripheral devices)
Alternate	Use established telemedicine relationship to support care-in-place or during evacuation.	**Power:** Solar cell battery **Network:** 4G or long term evolution (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, and 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 and radio

DANGER

Extreme caution must be exercised when using the electronic devices described in Table H-3 as they all produce an electromagnetic signature that may impact survivability on the battlefield of the individuals using the devices and those around them.

H-18. 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, such as using a script to convey information.

H-19. 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 the patient.

H-20. 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.

SECURITY DURING TELECONSULTATION

H-21. 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.

H-22. 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 sex 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.

DOCUMENTATION

H-23. 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 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.
- DOD ID number and battle roster number.
- Department of Defense identification number.
- Date of birth.
- Pseudo identification number.

Note: The social security number is no longer used for identification purposes within DOD. Role 3 hospitals will use the Soldiers DOD identification number or Battle Roster number from the casualty feeder card which contains the last four of the soldier's social security number. For additional information refer to DODI 1000.30.

H-24. 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.

Glossary

This glossary lists acronyms and terms with Army or joint definitions. Where Army and joint definitions differ, (Army) precedes the definition. Terms for which ATP 4-02.10 is the proponent are marked with an asterisk (*). The proponent publication for other terms is listed in parentheses after the definition. Use chapter intro style for glossary introduction.

SECTION I – ACRONYMS AND ABBREVIATIONS

ABCANZ	American, British, Canadian, Australian, and New Zealand (Armies)
AHS	Army Health System
AO	area of operations
AR	Army regulation
BCT	brigade combat team
BOA	basis of allocation
BSMC	medical company (brigade support)
C2	command and control
CBRN	chemical, biological, radiological, and nuclear
CFR	code of federal regulations
CMS	central materiel services
CONUS	continental United States
CT	computed tomography
DA	Department of the Army
DA PAM	Department of the Army Pamphlet
DCAS	dental company (area support)
DCR	damage control resuscitation
DCS	damage control surgery
DNBI	disease and nonbattle injury
DOD	Department of Defense
DSCA	Defense Support of Civil Authorities
EAB	echelons above brigade
EMT	emergency medical treatment
EPW	enemy prisoner of war
FDA	Food and Drug Administration
FHP	force health protection
FM	field manual
FRSD	forward resuscitative and surgical detachment
FRSS	forward resuscitative and surgical squad
GWS	Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field
HHC	headquarters and headquarters company

HHD	headquarters and headquarters detachment
HM	hazardous materials
HN	host nation
HSS	health service support
HW	hazardous waste
ICU	intensive care unit
ICW	intermediate care ward
ICWAD	intermediate care ward augmentation detachment
JOMIS	Joint Operational Medical Information Systems
JP	joint publication
MAD	medical augmentation detachment (32-bed)
MASCAL	mass casualty
MCO	major combat operations
MEDBDE	medical brigade (support)
MEDEVAC	medical evacuation
MEDLOG	medical logistics
MES	medical equipment set
METT-TC (I)	mission, enemy, terrain and weather, troops and support available, time available, civil considerations, and (informational considerations)
MMB	medical battalion (multifunctional)
MMS	medical materiel set
MOPP	mission-oriented protective posture
MTF	medical treatment facility
NATO	North Atlantic Treaty Organization
NCM	nutrition care manual
NDMS	National Disaster Medical System
NCO	noncommissioned officer
OE	operational environment
OMIS-A	operational medicine information system-Army
OPH	Operational Public Health
OPLAN	operations plan
OPORD	operation order
OR	operating room
OSHA	Occupational Safety and Health Administration
PACE	primary, alternate, contingency, emergency
PAR	population at risk
PCAD	medical detachment (prolonged care augmentation)
PDS	patient decontamination site
PM	patient movement
POI	point of injury
PPE	personal protective equipment
PVNTMED	preventive medicine

RBC	red blood cells
Rh	rhesus
RMW	regulated medical waste
RTD	return to duty
SAD	surgical augmentation detachment (24-bed)
S-1	personnel staff officer
S-2	intelligence staff officer
S-3	operations staff officer
S-4	logistics staff officer
S-6	signal staff officer
SDS	safety data sheets
STANAG	standardization agreement (NATO)
STB	special troops battalion
TACSOP	tactical standard operating procedures
TB Med	technical bulletin medical
TC	training circular
TMC	theater medical command
TMIP-J	theater medical information program-joint
TOE	table of organization and equipment
UAP	unified action partner
U.S.	United States
WARNORD	warning order
WB	whole blood
WIA	wounded in action
WII	wounded, ill, and injured
WWII	World War II

SECTION II – TERMS

agility

The ability to move forces and adjust their dispositions and activities more rapidly than the enemy. (FM 3-0)

area support

A task assigned to a sustainment unit directing it to support units in or passing through a specified location. (ATP 4-90)

Army Health System

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 Army Health System (AHS) includes all mission support services performed, provided, or arranged by the Army Medicine to support health service support and force health protection mission requirements for the Army and as directed, for joint, intergovernmental agencies, Army Forces, and multinational forces (FM 4-02)

casualty

Any person who is lost to the organization by having been declared dead, duty status – whereabouts unknown, excused absence-whereabouts unknown, missing, ill, or injured. (JP 4-02)

continuity of care

Attempt to maintain the role of care during movement at least equal to the care provided at the preceding facility. (FM 4-02)

convergence

The outcome created by the concerted employment of capabilities from multiple domains and echelons against combinations of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area. (FM 3-0)

crisis

An emerging incident or situation involving a possible threat to the United States, its citizens, military forces, or vital interests that develops rapidly and creates a condition of such diplomatic, economic, or military importance that commitment of military forces and resources is contemplated to achieve national and/or strategic objectives. (JP 3-0)

***damage control resuscitation**

The strategy to limit blood loss and prevent coagulopathy by combining hypotensive resuscitation, early airway control, and early and balanced use of blood products and other hemostatic agents. Also called DCR.

***damage control surgery**

The surgical intervention (rapid initial control of bleeding and contamination with packing and temporary closure) to keep the patient alive, targeted at prevention of the triad of death (hypothermia, acidosis, and coagulopathy), rather than correction of anatomy. Also called DCS.

depth

The extension of operations in time, space, or purpose to achieve definitive results. (ADP 3-0)

died of wounds received in action

A casualty category applicable to a hostile casualty, other than the victim of a terrorist activity, who dies of wounds or other injuries received in action after having reached damage control surgical capability. (DODI 1300.18)

endurance

The ability to persevere over time throughout the depth of an operational environment. (FM 3-0)

essential care

(Joint) Medical treatment provided to manage the casualty throughout the roles of care. (JP 4-02)

(Army) The absolutely necessary initial, en route, resuscitative, and surgical care provided to save, stabilize, and return as many Soldiers to duty as quickly as possible. (FM 4-02)

***forward resuscitative surgery**

Urgent initial surgery required to render a patient transportable for further evacuation to an inpatient medical treatment facility staffed and equipped to provide for the patient's care.

fragmentary order

A fragmentary order is an abbreviated operation order issued as needed to change or modify an order or to execute a branch or sequel. Also called FRAGORD (JP 5-0)

***hospital**

A medical treatment facility capable of providing inpatient care.

***inpatient**

A person admitted to and treated within a Role 3 hospital and who cannot be returned to duty within the same calendar day.

mass casualty

(Joint) Any number of human casualties produced across a period of time that exceeds available medical support capabilities. (JP 4-02)

(Army) Is any large number of casualties produced in a relatively short period of time, usually as the result of a single incident such as a military aircraft accident, hurricane, flood, earthquake, or armed attack that exceeds local logistics support capabilities. (FM 4-02)

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. See also intelligence. (JP 2-0)

medical regulating

Medical regulating is the coordination for the movement of patients to match patients with an appropriate medical treatment facility. See also health service support; medical treatment facility. (JP 4-02)

medical treatment facility

(Joint) A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. (JP 4-02)

(Army) Any facility established for the purpose of providing medical treatment. This includes battalion aid stations, Role 2 facilities, dispensaries, clinics, and hospitals. (FM 4-02)

multidomain operations

The combined arms employment of joint and Army capabilities to create and exploit relative advantages to achieve objectives, defeat enemy forces, and consolidate gains on behalf of joint force commanders. (FM 3-0)

***nontransportable patient**

An individual whose medical condition is so severe that they require immediate stabilization or surgical intervention to prevent further deterioration, and cannot be safely evacuated to a higher level of care without risking significant harm or compromise to their health.

operation order

An operation order is a directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. Also called OPORD. (JP 5-0)

operational reach

The distance and duration across which a force can successfully employ military capabilities. (JP 3-0)

***outpatient**

A person receiving medical/dental examination and/or treatment from medical personnel and in a status other than being admitted to a hospital.

***patient**

(Joint) A sick, injured, wounded, or other person receiving medical care, dental care, or other medical treatment. (JP 4-02)

(Army) A wounded, ill, and injured Soldier who receives medical care or treatment from medically trained personnel.

patient movement

The act or process of moving a sick, injured, wounded, or other person to obtain medical and/or dental care or treatment, which includes medical regulating, patient evacuation, and en route medical care. (JP 4-02)

point of injury

The location a wounding, illness, or injury was sustained. (FM 4-02)

preventive medicine

(Joint) The anticipation, communication, prediction, identification, prevention, education, risk assessment, and control of communicable diseases; illnesses; and exposure to endemic, occupational, and environmental threats. Also called PVNTMED. (JP 4-02)

prolonged care

Patient care for extended periods of time when evacuation or mission requirements surpass available capabilities or capacity to evacuate the patient. (JP 4-02)

reconstitution

Reconstitution consists of those actions that commanders plan and implement to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources. (ATP 3-21.20)

return to duty

A patient disposition which, after medical evaluation and treatment when necessary, returns a Soldier for duty in their unit. (FM 4-02)

roles of medical care

The characterization of health support for the distribution of medical resources and capabilities. (JP 4-02)

theater evacuation policy

A command decision indicating the length in days of the maximum period of noneffectiveness that patients may be held within the command for treatment, and the medical determination of patients that cannot return to duty status within the period prescribed requiring evacuation by the first available means, provided the travel involved will not aggravate their disabilities or medical condition. (ATP 4-02.2)

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15 August 2025

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