

CHAPTER 9

HEALTH SERVICE SUPPORT PLANNING

Section I. INTRODUCTION

9-1. General

a. The objective of military medicine, to conserve fighting strength, dictates that patients be examined, treated, and returned to duty as far forward (as early in the phased health service support system) as possible and that health service support resources be employed to provide the utmost benefit to maximum personnel in support of the mission. When a wide disparity develops between the patient workload and the treatment capability, it may become necessary to concentrate that capability upon those patients who can be returned to duty immediately and those for whom resuscitation can be accomplished with a minimum expenditure of personnel, supplies, and time. Planning for health service support is a dynamic process. Detailed planning principles are discussed in FM 101-5, FM 101-10-1, and FM 8-55.

b. The health service support system is a single, integrated system that reaches from the forward areas of the combat zone (CZ) in the theater of operations to the Continental United States (CONUS). This system entails the effective medical regulation of sick, injured, and wounded soldiers in the shortest possible time to the treatment facilities capable of providing the required treatment. The sick, injured, and wounded are regulated and evacuated without regard to lateral or rear boundaries.

c. Nonmilitary personnel who accompany combat forces or who function within a theater of operations (e.g., press, contractors, Logistic Assistance Representatives, and Red Cross personnel) are authorized treatment in military medical facilities and evacuation as specified in AR 40-3. Medical assistance to other civilians is provided within the limits of available health service resources. The civil affairs organizations have the basic responsibility for working with and through civilian health agencies, thus providing the normal link between the civil-military operations (CMO) officer, his subordinate units, and the appropriate command surgeon.

d. Although graves registration and return to duty of personnel from medical facilities are very important, they are not health service support functions. The prompt and timely performance of both of these functions by nonmedical units prevents possible adverse impact on the operational effectiveness of medical treatment facilities.

9-2. Principles of Field Medical Support

a. Continuity. The principle of continuity is to provide optimum care and treatment to the sick, injured, and wounded in an uninterrupted manner. Continuity in care and treatment is achieved by moving the patient through a progressive, phased health service support system, extending from the forward area of the CZ to the area as far rearward as the patient's condition requires, possibly to CONUS. Each type of health service support unit contributes a measured, logical increment appropriate to its location and capabilities.

b. Control. The principle of control is to insure that all health service support resources are deployed accurately and on time, and that the scope and quality of medical treatment and care meet the professional standards and policies of the Army Medical Department (AMEDD). Capability to provide professional care and treatment at various levels in the system is achieved through uninterrupted control by medical personnel in the deployment of medical units, personnel, facilities, equipment, supplies, and evacuation means at the right places and times for accomplishment of health service support plans. Reliable, timely, and accurate communications are also essential and indispensable to health service support in order that patient-related data can be received promptly at medical command and control elements, so that evacuation means can be dispatched for patient pickup and directed to deliver the patient to the most appropriate destination. Communications means must be adequate and available to each medical organization. The health service support system includes the operations of a medical communication subsystem. Medical communications

serve a time-sensitive product—the patient; therefore, speed and simplicity are demanded and the communications procedure cannot be delayed by competing priorities.

c. Proximity. The principle of proximity is to keep morbidity and mortality to the minimum by prompt acquisition of the casualty into the health service support system. Health service support resources are employed as close to the area of combat operations as the time/distance factors and the tactical situation permit. Patients are either transported to the medical treatment facility, or the treatment facility is moved to the patients.

d. Flexibility. The principle of flexibility is to be prepared to shift health service support resources to meet changing requirements. Changes in tactical plans or operations make flexibility in health service support essential. Since all health service support units are used somewhere within the theater and none held in reserve, the medical com-

mander makes alternate plans for redistribution of health service support resources as required.

e. Mobility. The principle of mobility is to maintain close health service support of maneuvering combat forces. Medical units must have mobility equal to or greater than the units they are supporting. The mobility principle is applied to the health service support system as a whole. For example, if one unit is immobilized, a similar unit may be leap-frogged past it. An immobilized unit may be given priority in evacuating its patients as they become stabilized, and its resources may be moved by echelon.

f. Conformity. The principle of conformity is to provide health service support to the sick, injured, and wounded soldiers at the right time and place. In application of the principle of conformity, the health service support planner analyzes the commander's tactical plan of operations to determine the health service support requirements, and plans the required support to conform to tactical operations.

Section II. UNIFIED COMMAND MEDICAL PLANNING

9-3. Health Service Support in Unified Commands

a. The commander of a unified command has the authority to coordinate logistics and administrative support of component forces, including health service support of the unified command (Joint Chiefs of Staff (JCS) Pubs. 2 and 3). This is in addition to his vested authority as a commander, including his strategic and operational responsibilities.

b. A unified command surgeon is designated for each unified command. Liaison is established between the unified command surgeon and each component command surgeon. The duties of the unified command surgeon are normally advisory, planning, and supervisory as they pertain to the overall health service support of the command. His normal responsibilities include;

(1) Insuring that hospitalization and evacuation facilities provided by the components meet health service support requirements of the unified commands and that there is no unnecessary duplication of facilities.

(2) Assisting in the formulation of the theater evacuation policy.

(3) Coordinating and supervising the activities of the Joint Medical Regulating Office (JMRO) when established. The JMRO is primarily responsible for the evacuation of casualties out of the

theater of operations through coordination with the US Air Force (USAF).

(4) Coordinating component services' preventive medicine activities.

(5) Coordinating provisions for medical assistance to civilians.

(6) Preparing patient estimates and the medical portions of support annexes to unified command plans.

(7) Coordinating joint utilization of medical areas/facilities and all cross-service medical arrangements.

(8) Coordinating and supervising the activities of the Joint Blood Program Office (JBPO) when established.

(9) Establishing medical training policies for joint operations.

(10) Planning and coordinating the medical portion of joint exercises.

(11) Monitoring medical supply and medical equipment maintenance procedures of the component commands.

c. Each military department operates its portion of the overall hospitalization system in a unified command and each determines its requirements in accordance with service policy. Hospitals in the unified command may be jointly staffed and used or they may be staffed by one service and used by all. Medical care of military patients of unified

commands in civilian and allied military facilities is restricted to emergencies. Enemy prisoners of war (EPW) receive medical care in accordance with the provisions of the Geneva Convention of 12 August 1949. Medical care of civilian casualties in occupied areas is also provided in accordance with the provisions of the Geneva Convention. The general doctrinal organizations and practices of the medical components of the Army, Navy, and Air Force are outlined in FM 8-8.

d. Each of the component services is responsible for providing or arranging for the provision of the logistical means required to accomplish the medical mission, to include all hospitalization and evacuation support in an area occupied or used exclusively by that component. Each component maintains command blood programs which are coordinated by the JBPO. Responsibility for technical control over medical activities necessary for proper patient care, records, disease prevention, training, budgeting; and determination of requirements for and the supply and maintenance of medical materiel is exercised by component commanders through their surgeons.

(1) Joint use may be made of dental facilities and services.

(2) The US Army is designated as the DOD Executive Agent for providing military veterinary services worldwide throughout the armed services and DOD agencies. These veterinary services include the wholesomeness (including the presence or absence of NBC contaminants) and quality assurance inspection of food (except on US Air Force bases), laboratory examination of food products, preparation of directories of sanitarily approved sources for subsistence, procurement, sanitary inspections of establishments supplying food to DOD components, complete medical surgical care of government-owned animals, and prevention and control of animal diseases communicable to man (zoonosis control).

(3) The US Air Force operates Theater Blood Transshipment Centers (BTC) which are strategically located to receive all blood arriving from CONUS. The BTCs store blood for the Quad-Services. Each component arranges for pickup of their share of the blood from the BTC IAW the respective JBPO OPLANS.

e. In joint operations, each component command is primarily responsible for all hospitalization and evacuation personnel and facilities required for its own support; medical supply and maintenance support for its medical equipment; medical units for the interim care and treatment of its patients and those of other services as required; care, treatment, and hospitalization of EPWs and designated

civilians in areas of assigned responsibility; and operation and support of joint use of facilities when assigned.

(1) All medical evacuation by land, including inland water transportation within assigned geographical areas, is the responsibility of the Army component. Aeromedical evacuation within the Army CZ (except in areas supported by Air Force airlanded logistics support) is the responsibility of the Army component for short distances and USAF for longer distances.

(2) The Navy/Marine Corps component command is responsible for sea transportation for evacuation of patients from overseas areas to CONUS; providing offshore hospitalization for joint use as directed by the unified commander; and aeromedical evacuation within the Navy/Marine Corps component command area of responsibility.

(3) The Air Force operates an intratheater and intertheater aeromedical evacuation control center, which consists of aeromedical staging, aeromedical evacuation inflight, medical crews, and liaison teams to support aeromedical evacuation from the CZ and within and between the communications zone (COMMZ) and CONUS.

9-4. Joint Health Service Support Planning

a. The tactical mission assigned to the combat forces is the basic consideration of all health service support planning. Medical preparation and planning is specifically designed to support the tactical operations. Among the most important factors used for sound health service support:

(1) A health service support estimate of the situation.

(2) Coordination of health service support planning peculiar to the medical service of each component; with elements within each service; plans involving joint action among the services; and those involving planning with allied forces.

b. The health service support estimate of the situation follows the process prescribed in the Joint Operations Planning System (JOPS) where it is called medical estimate. The estimate is an examination of all factors which will influence the accomplishment of the mission. The object is to arrive at a sound decision for the proper course of action to be adopted. The fundamental steps include:

(1) Consideration of the command mission.

(2) Consideration of the medical situation and all factors affecting health service, analysis of the

workload, requirements and means available, and development of medical courses of action.

(3) Evaluation of various courses of action, including outstanding features, controlling limiting features, and comparative advantages and disadvantages.

(4) Assessment of the enemy's potential for inflicting physical damage including the use of nuclear, chemical, and biological weapons and his ability to impede or prohibit evacuation of friendly personnel. Enemy health conditions may affect the health of our own forces and are indicative of requirements for the care of EPWs and civilian detainees.

(5) Evaluation of friendly capabilities including strength, combat effectiveness, position, weapons, and plan of action. These are weighed against the enemy capabilities to project casualty data used to determine estimated workload.

(6) Consideration of the environment in which the operation is to take place, which can impact greatly upon the requirements and capabilities of medical service units. The availability and condition of road nets, landing strips, railroads, harbors, and other geographic features directly influence the ability to evacuate patients and influence construction of facilities. The climate can cause frostbite, sunburn, trenchfoot, heat prostration, or other ailments. It can also interfere with land and air evacuation as well as contribute to the deterioration of medicines, drugs, and medical equipment. Information concerning the types of diseases, sources, frequency, severity, and current results of preventive measures are needed to plan disease control measures. Other potential sources of diseases are insects, animals, vegetation, and the sanitary aspects of the preparing, handling, and serving of food and similar information about water supplies.

(7) Making a preliminary estimate, including the probable number of patients, the types of patients, their distribution in time and the areas of greatest patient density from the information in preceding paragraphs. The computation of hospital bed requirements; the number and types of medical units needed; additional transportation needed to evacuate patients, move medical units, or supplies; and the amount and kinds of medical materiel requirements are calculated from the estimated patient load. Included also are requirements for medical disposition, intelligence, environmental health, dental, veterinary, and EPW support. These computed requirements are evaluated in relation to organic capabilities of major combat forces, medical units that have been made available, supplies on hand, and the capability for replenishment.

(8) Recommending medical support. After determining the courses of action open to him, the probable effect of the enemy capability on the success of each course of action, and weighing the advantages and disadvantages of each, the health service support planner (staff surgeon) determines that course of action which will contribute the most to accomplishment of the mission and recommends to the support commander what medical support should be provided and the employment of medical units.

c. Evacuation policy:

(1) The theater patient evacuation policy is established by the Secretary of Defense with the advice of the JCS and upon the recommendation of the theater commander. The period of time stated in the theater evacuation policy will commence for the patient on the date of initial admission to any hospital within the theater of operations. The total time spent in all hospitals, both in the CZ and/or the COMMZ, for treatment of a single episode of illness or injury should not exceed the number of allowable days of noneffectiveness stated in the theater evacuation policy. Patients who, in the opinion of a responsible medical officer, cannot be returned to duty within the period prescribed, are evacuated on the first available transportation if the patient's medical condition permits.

(2) Subordinate commands may establish intratheater patient evacuation policies within the limits of the theater patient evacuation policy and subject to approval by the theater commander. For example, a short evacuation policy usually is established for CZ hospitals so as not to impair their mobility or their capability to accommodate surges of patients. Intratheater patient evacuation policies must be flexible and changed as dictated by the tactical situation. Intratheater evacuation policies may differ among the hospitals depending on their location, facilities, staffs, and the types of patients received.

(a) *During static situations.* During a slow-moving or stabilized situation, when patients are hospitalized at a fairly constant rate, CZ policies may be changed to permit longer retention of patients who do not require specialized treatment in a COMMZ general hospital.

(b) *During heavy combat.* When heavy combat causes a large number of patients, the intratheater patient evacuation policy must be reduced to make beds available for current and anticipated needs. As a result, fewer patients admitted for treatment are retained. In addition, the displacement of hospitals will temporarily reduce the number of beds

available for patients and requires that more patients be evacuated to the COMMZ.

(3) Evacuation policies are primarily used for patient management and medical resource allocation planning. They will affect numbers of patients returned to duty within the various levels of hospitalization and direct impact on:

(a) The number and type of medical units required in COMMZ to support the CZ.

(b) The amount of medical materiel requirements.

(c) The volume and type of transportation.

(d) The rate of patient returns to duty.

(e) The theater personnel replacement requirements.

(f) The amount and timing of engineering support.

(g) The number of hospital beds in CONUS to support the theater.

(4) The shorter the theater evacuation policy, the fewer the number of hospitals that will be required in the theater and the greater the number of hospital facilities that will be required in CONUS. Since a shortened evacuation policy means a greater flow of patients from theater to CONUS, the personnel replacement and transportation requirements will be increased.

(5) All available forms of transportation must be considered together with the details of patient handling. While it is DOD policy that patients of the Armed Forces will be evacuated by aircraft when air transportation is available and feasible, the planner must also consider surface medical transportation such as field and bus ambulances, trains, and ships. Convalescent patients and those others requiring evacuation outside the area will be transferred to other units leaving the area. The efficiency of medical support operations depends on the effective distribution of patients to those facilities that are capable of providing the required treatment in the shortest possible time.

d. Based on the health service support estimate, the planner must determine what medical practices, procedures, and policies are best adapted to the area of operations or to the operation (see Chapter 2, FM 8-55). Generally, existing standing operating procedures (SOP) can be used, but it may be necessary to devise entirely new procedures. These procedures cover insuring that per-

sonnel involved in the operation are physically fit; preventive medicine requirements; the routing and controlling of evacuation movements and the location of evacuation facilities; professional care requirements and the location and employment of various types of hospitals to include times of opening, closings, movement, changes in personnel and equipment; the amounts and types of medical supplies needed; location of supply installations and maintenance facilities; sources of blood products and substitutes; records control; amounts and types of medical training required; and other procedures as required.

e. Based on the health service support estimate, the medical procedures, and the resources allocated, the health service support planner determines the number and types of units available, and allocates responsibilities to each major unit. Along with the determination of units required, the planner must also provide for adequate replacement of personnel, especially those possessing critical skills. He must also plan for providing the right skills at the right place and time, based on changes in the tactical concept of operations.

f. The health service support estimate is used by the base development planner and the logistics planner to determine the construction effort required to provide hospitals and other facilities for medical care of the forces. In a large landmass theater of operations, the number of hospitals required to provide fixed-bed requirements may be considerable. The capabilities of the engineers to construct hospital plants may well influence evacuation policy by phase.

g. Another major factor for consideration in planning the hospitalization program for a theater of operations is that of phasing the hospitals into the theater. This requires long-range planning. Hospital units must be organized and trained and be ready for shipment at the time required. This requires full coordination between the theater of operations commander and the zone of interior commander who must provide the hospitals. The time element is dependent upon the accumulation of patients, which in itself is dependent upon the phased buildup of theater strength, a determination of the strengths to be supported, and a planned increase of the evacuation policy. As the theater buildup is accomplished, the evacuation policy normally will be increased until the optimum policy is reached.

Section III. SERVICES WITHIN THE HEALTH SERVICE SUPPORT SYSTEM

9-5. Dental Services

a. Dental Support. Dental personnel are located throughout the theater to provide dental care and thereby prevent unnecessary evacuation of individuals who require either emergency or definitive dental treatment. The control and technical supervision of these personnel are accomplished by Dental Corps officers in command or staff positions.

b. Unit Dental Support. Unit dental support is twofold. It provides emergency treatment necessary to return dental patients to duty as quickly as possible or to prepare them for further evacuation. It also institutes as many preventive measures as possible to reduce the dental patient load. This support is provided by dental personnel organic to divisions, separate brigades, and Special Forces organizations.

c. Hospital Dental Support. Hospital dental support is provided by dental personnel organic to each hospital and convalescent center. These personnel may provide definitive treatment capability for inpatients, staff members, and patients referred from area dental detachments.

d. Area Dental Support. Area dental support, provided in the CZ and COMMZ by dental personnel listed in the Table of Organization and Equipment (TOE) 8-670, Dental Service Detachments, provides definitive dental treatment to all personnel in a given geographical location. The level of treatment is contingent upon resources, time, types of procedures, and number of personnel to be treated. Priority of treatment in rear areas is given to personnel in divisions or brigades retraining, regrouping, or in reserve. Command of area dental support units usually remains with the dental headquarters to which the units are assigned.

e. Dental Staff Officers. Dental staff officers are assigned by TOE to medical commands (MEDCOM) and medical brigades and are included on the staff of the theater Army surgeon.

9-6. Veterinary Services

Veterinary services are an integral part of health service support within a theater of operations. They include assuring food wholesomeness, food hygiene, safety, and quality assurance inspections; sanitary inspection of food processing, storage, and distribution facilities; control of animal borne and foodborne diseases; assistance in the preventive medicine program; complete medical and surgical care of military-owned animals; and preventive

medical aspects of civic action programs. They also entail inspecting, monitoring, and testing subsistence and food producing animals contaminated or suspected of being contaminated with nuclear, biological, and chemical agents. When directed, they participate in other activities. For veterinary services to be effective:

a. The organization, doctrine, training, and equipment must be adequate to support the entire theater under all conditions and in any environment.

b. The services, either routine or emergency, must be available as far forward as operational requirements and the tactical situation permit.

c. The veterinary units must respond quickly to rapidly changing tactical situations.

d. The veterinary personnel must emphasize the preventive aspects of their duties, such as reducing the deterioration and spoilage of subsistence and the incidence of both animal borne diseases, and disease and injury in military animals.

e. Area veterinary services are provided by veterinary detachments and items (TOE 9-680) allocated to support geographical areas in both the CZ and the COMMZ.

f. Veterinary staff officers are assigned to the staff of the surgeon of the theater Army MEDCOM and of the major medical brigade headquarters supporting the corps.

9-7. Preventive Medicine Services

a. Preventive medicine services enhance unit effectiveness by reducing individual soldier's exposure to disease and other environmental hazards. These services normally are provided at all levels of health service support in the CZ and in the COMMZ. They are dependent upon the development of command interest and support. Preventive medicine services entail:

(1) Assistance in the control of arthropod and rodent vectored diseases, including technical consultation, entomological surveillance, and reinforcement of the tactical unit's organic pest management capabilities.

(2) Assistance in the control of waterborne diseases including water quality surveillance of water purification and storage facilities and technical consultation in the treatment of water under all field conditions.

(3) Assistance in the control of foodborne diseases, including surveillance of ice and dining facilities.

(4) Professional supervision of immunization and drug prophylaxis activities for the prevention or suppression of communicable diseases.

(5) Assistance in the control of excessive occupational exposures to such hazards as ionizing and nonionizing radiation, toxic gases, noise, and climatic extremes.

(6) Assistance in the identification and investigation of disease outbreaks and advice on appropriate preventive and corrective measures.

(7) Technical advice on medical aspects of nuclear operations.

(8) Education of troops in appropriate hygienic practices and the training of field sanitation teams.

(9) Technical consultation concerning the selection and development of bivouac sites, cantonment areas, refugee camps, and EPW compounds.

(10) Technical consultations in the renovation or repair of public utilities of towns and villages located in the area of operations.

(11) Professional and technical advice to commanders at all levels on measures to reduce noneffectiveness from disease and injury.

(12) Surveillance of military environments in general to detect and identify actual or potential health hazards and to formulate suitable means for minimizing their effects.

b. Unit preventive medicine countermeasures and field sanitation team services are the responsibility of the unit commander (AR 40-5). Area services are provided by preventive medicine detachments organized under TOE 8-620 and provide services that are beyond the capability of unit personnel due to their complexity, scope, or specialized nature. Special environmental conditions may be the overriding considerations in tactical health service support planning and may have immediate impact on the number, composition, and target dates for arrival of preventive medicine teams/detachments and supplies needed to implement control measures.

c. The theater Army surgeon's section and the MEDCOM headquarters include a preventive medicine staff officer. In addition to serving as a technical advisor, the preventive medicine officer also may assist the surgeon in staff supervision of the activities of assigned and attached preventive medicine detachments. Other assigned preventive medicine personnel normally include medical entomologists, sanitary engineers, environmental science officers, nuclear medical science officers, and preventive medicine specialists.

d. Equipment retrograde is a program designed to reuse and/or rebuild salvageable equipment and

materiel from the theater of operations which results in substantial supply economy of critical and high-demand items. The US Department of Agriculture (USDA) and the US Public Health Service (USPHS) are required to inspect all international cargo consisting of such equipment which enters CONUS. A military program is established in the CZ and the COMMZ to provide this inspection for equipment cargo loading points. This is accomplished in conjunction with representatives of the USDA and USPHS. Inspectors are normally preventive medicine specialists who are trained and certified as military quarantine inspectors and are normally provided from available preventive medicine assets.

9-8. Medical Laboratory Services

Within the theater of operations, medical (clinical) laboratory services are provided in all hospitals, convalescent centers, dispensaries, division medical companies, and separate medical treatment companies. The capabilities within these units vary from only one medical laboratory specialist in a dispensary to a pathologist and Medical Service Corps (MS) clinical laboratory officers in a large, sophisticated clinical laboratory in a general hospital. Laboratory requirements which are beyond the capability of a unit laboratory are forwarded to the next larger medical treatment facility or to designated separate laboratories, specialized laboratories and, on occasion, contract laboratories. Included in laboratory services are all of those tests with their related activities that identify and evaluate risks to human health. Most of the specialized laboratory testing is accomplished by medical laboratory detachments organized under TOE 8-650.

9-9. Blood Bank Services

a. Blood bank services are provided in the theater of operations to support US military and, as directed, allied military and indigenous civilian medical establishments. These services are theaterwide and coordinated with the Joint Blood Program Office (JBPO) which interfaces with the DOD Military Blood Program Office (MBPO) in CONUS. Blood bank services encompass the provision of volunteer blood donors by all commands in accordance with their respective command blood programs. Included in the functions of the blood bank services are the following: providing medical technical services to evaluate prospective donors and collect blood from suitable donors; testing and classifying the blood for transfusion; providing protective conditions during transport and storage; providing pretransfusion testing to insure suitability

ity for the specific patient; and preparing and/or maintaining data and reports for assessing and managing the services provided. Some blood is provided from within theater resources, however, the majority of blood requirements will be provided from CONUS.

b. Each service within the theater is expected to maintain a capability for self-support of its own forces. In joint operations, the JBPO is established on a full-time basis under the supervision of the joint surgeons. (See FM 8-8 for details of the functions of the MBPO in joint operations.) The theater Army blood program officer normally serves as the Army representative in this agency and functions as its chairman when the Army has the preponderance of forces in the theater. Specialized US Army Blood Bank units and blood bank units/personnel from other services provide for control, collection, processing, storage, and distribution of blood products in support of the theater blood requirements. All theater blood activities are managed and coordinated by the JBPO.

c. Blood processing detachments (team NA, TOE 8-620) normally are attached to the blood bank service headquarters (AJ TOE 8-620) on the basis of one per three blood collecting detachments (team NB, TOE 8-620). These detachments receive, process, and store blood collected in the COMMZ. Blood collecting detachments (NB) are attached to the blood bank service headquarters detachment on the basis of one per 80,000 personnel supported. These detachments normally are employed only in the COMMZ and normally collect blood from non-combatants (NEO), combat support and combat service support personnel. NC detachments are assigned to the Blood Bank Service Headquarters Detachment and normally attached to another medical unit for administrative/logistical support. Blood distribution detachments (team NC, TOE 8-620) are allocated on the basis of one per 100,000 personnel supported. NC detachments normally are attached to the blood bank service headquarters detachment and are used for the movement of blood on relatively short trips to and from airfields, to and between the central blood bank and its subcenters, between blood collecting and storage facilities and, on a limited basis, to medical facilities along the route. When conditions such as long distances (excess of 88 kilometers) or travel over rough roads are required or expected, plans must be made to move blood by air, except when the tactical situation, weather, or other conditions prevent air movement. Plans for air movement must be considered when allocating available aircraft resources for mission assignments. Air ambulance units provide emergency transportation for

blood products and blood substitutes, and routine transportation on a backhaul basis. Specific blood distribution systems are developed for the unit by the unified command components and the JBPO.

d. The resources of the theater Army medical laboratory detachments are available to provide technical assistance, as required. A qualified pathologist normally functions as the transfusion consultant to the theater Army surgeon.

9-10. Medical Supply, Maintenance, and Materiel Management

a. The medical commodity (class VIII in the classes of supply structure) consists of the necessary materiel for use in medical, surgical, veterinary, dental, optical laboratory, and allied disciplines.

b. Medical materiel is a highly specialized category of supply used primarily by professionally qualified medical personnel of the Army Medical Department. Medical items generally have no application beyond the care and treatment of patients. The ultimate purpose of the products of a medical supply system is the patient for whom the effort was expended in the first instance. The diagnosis, treatment, and prescription of medication for the patient is solely the responsibility of the attending physician. It is necessary that the medical supply system provides timely and effective response to the doctor-patient requirements. The medical supply system must be adequate to meet the needs of the service, and the system must be capable of rapidly adapting to a large increase in patient load in the event of a national emergency with a minimum decrease in efficiency and no compromise in the doctor-patient relationship. The successful operation of the medical supply system is directly dependent upon its close integration with the total medical effort and its supervision by appropriate command surgeons.

c. Providing medical materiel support (medical supplies and equipment, biomedical equipment maintenance, and optical fabrication) is an integral part of the patient treatment and evacuation system. The medical materiel support units responsible for distribution of the support are under the command and control of the medical brigade at the corps or CZ level and of the medical command at the theater Army or COMMZ level. These units are established in areas of customer concentration and/or in proximity to air, rail, or sea terminals and major road nets. To the maximum extent, patient evacuation transportation should be used for the backhaul of medical materiel.

d. The theater Army surgeon advises the theater Army commander in the development of the medical supply and maintenance system, recommending policies and establishing priorities. He plans and supervises technical inspections of this system, determines theater requirements for medical equipment and supplies, and he exercises staff supervision over the requisition, procurement, storage, maintenance, distribution, and documentation of these supplies and equipment. If the requirement to support other components in a joint service operation arises, this contingency should be coordinated with the component concerned and the support provided on an area basis. Requirements for civilian communities and related administration are developed in cooperation with the Assistant Chief of Staff, Civil Military Operations.

e. The COMMZ MEDSOM battalions are assigned to the Medical Command (MEDCOM), under the command and control of the MEDCOM Commander. They are allocated on the basis of one per Corps supported. Major customers include field, station and general hospitals located in the COMMZ. The COMMZ MEDSOM battalion has the dual mission of providing health services logistics support to medical units located in the COMMZ as well as providing support to the Corps MEDSOM Battalion. The COMMZ MEDSOM Battalion performs the functions of receipt, storage and shipment of Class VIII materiel, biomedical equipment maintenance, medical grade oxygen and water, and single and multivision optical fabrication. Resupply of the COMMZ MEDSOM battalion is normally from CONUS sources through Air Lines of Communications (ALOC).

f. The Corps/Combat Zone MEDSOM battalion is under the command and control of the Corps Medical Brigade/Medical Group. It provides area support to medical and nonmedical units operating within its Corps boundary and is allocated on the basis of one per Corps or equivalent supported element. Major customers of the CZ MEDSOM battalion include divisions, Combat Support Hospitals (CSH), Mobile Army Surgical Hospitals (MASH), and Evacuation (EVAC) hospitals, and an area medical laboratory. The CZ MEDSOM battalion performs the following functions: receipt, storage and issue of medical materiel; biomedical equipment maintenance; single vision optical fabrication services; medical oxygen and medical grade water. Resupply is from the COMMZ MEDSOM battalion or direct throughput shipments from CONUS.

(1) The supply and service division of hospitals located in the Corps area stock approximately 10-15 days of Class VIII supply. The supply and serv-

ice division of hospitals provides medical resupply support activities to their respective hospitals and may be tasked to provide area support for Class VIII supply to medical and nonmedical units. The supply and service division also provides medical equipment maintenance support to hospital activities.

(2) The division medical supply officer (DMSO) of the medical battalion/main support battalion provides medical supply and biomedical equipment maintenance support to the Army division. The DMSO maintains a prescribed load to support sets, kits, and outfits (SKO) contained in the unit and division level treatment facilities. The load may consist of items contained in those unit and division level SKOs and other items that are demand supported. In the absence of demand history, the items/quantities contained in the Medical Instrument and Supply Set, Resupply Set No. 1 may be used as an initial start point. This set is not normally requisitioned or issued as an end item, and if used as a basis for estimation, must be modified based on the unit mission, organic storage and transportation capabilities, and the potential for timely resupply. The DMSO receives replenishment through line item requisitioning and back-up biomedical equipment maintenance support from the supporting CZ MEDSOM Bn.

g. Biomedical equipment maintenance performed in the theater will conform to the three level maintenance concept. Biomedical maintenance performed at the Corps MEDSOM battalion will be Intermediate Forward and will concentrate on repair and return, employ contact teams and maintain limited float of critical items. The COMMZ MEDSOM battalion will provide biomedical maintenance support to the medical units in the COMMZ and backup support to the Corps MEDSOM battalions. The COMMZ MEDSOM battalion will provide Intermediate Forward, Intermediate Rear and Sustainment level medical maintenance and will concentrate on repair and return to stock for the corps and repair and return to supported medical units in the COMMZ. An expanded maintenance float of designated items will be maintained at this level.

9-11. Optical Fabrication

Optical fabrication support will be found throughout the theater. Division level support will be limited to fabrication of semi-finished prescription single-vision lenses and spectacle repair services to all assigned or attached units. Optical fabrication requirements beyond the capability of the Division will be provided by the Corps/COMMZ MEDSOM battalions on an area basis. The Corps MEDSOM

battalion will provide single vision fabrication and spectacle frame repair. COMMZ MEDSOM battalions will provide single and multivision spectacle fabrication and spectacle frame repair to the COMMZ on an area basis and backup to the Corps.

9-12. Medical Food Services

Medical food services are provided at each level of health service support within a theater of operations; TOE hospitals provide the full range of medical food services for patients. These services include preparing and serving regular and modified diets, assessing the nutritional needs of patients, and providing nutrition education to include dietary counseling of patients. The Chief of Medical Food Service is responsible for coordination of patient and staff ration acquisition through the Class I supply system.

9-13. Supplies for a Theater of Operations

a. Medical supplies for a theater of operations are acquired primarily from the Defense Personnel Support Center (DPSC). All requisitions for medical materiel from Army oversea activities are routed through the Defense Automatic Addressing System (DAAS) for establishment of essential controls and the expedition of status information to the requisitioner.

b. Medical supplies to satisfy the initial support requirements of a—

(1) Mature theater come primarily from prepositioned war reserve stocks in the theater. These stocks are intended to fill the void created by the lag in establishing the functional pipeline from CONUS or other sources outside the theater.

(2) Developing (contingency) theater come from the medical units, to include the MEDSOM battalions, preplanned basic load and any existing prepositioned war reserve stockpiles. (To deploy with the necessary class VIII materiel, the planner must possess a detailed understanding of each contingency plan and the type and number of units that his unit may be tasked to support.) The current standard resupply sets are *not* intended to be requested as a single stock number (end item) for resupply but serve only as planning and management tools for the medical logistician to be used to satisfy initial support requirements. When the logistics pipeline is established, line item requisitioning supports the theater.

c. In establishing MEDSOM units, the following should be considered:

(1) The general locations of medical materiel activities are chosen along the proposed axis of advance with consideration given to the tactical

and strategic effort, the location of ports, and the major usable transportation facilities. When selecting specific locations, however, one must consider such factors as adequate dispersion because of the nuclear threat, defensibility of installations, local roads, disposition of troops, rail sidings, adequacy of local communication facilities, existing buildings and structures, utilities, and the availability of local labor. According to the Geneva Convention, medical stocks must be stored and distributed separately from other classes of supply to be considered protected materiel under the provisions of the Geneva Convention.

(2) Medical supply installations should be near railheads, ports, airfields, and highways to minimize hauling. As transportation means are always at a premium, economical and full use of available transportation is essential. Plans are developed for using the most efficient and economical transportation means. To minimize the rehandling and reshipping of medical supplies, it is desirable that shipments from debarkation ports or beaches be made directly to forward areas whenever possible. Bulk quantities of medical supply items can easily be assembled at the port or beach area, documented, marked, and loaded for shipment to forward supply installations. Shipment of medical supplies should always be made by the best available means. Throughout distribution is used where possible.

(3) Storage facilities for medical supplies should provide 100 percent covered storage whenever possible. Existing buildings should be used to the greatest extent possible to provide adequately covered, refrigerated, secure, and controlled humidity and temperature storage. Requirements for utilities must be considered. Preservation and packing procedures as prescribed in TB MED 1 must be followed.

(4) Medical supply installations must remain flexible to meet changing situations. The threat of nuclear attacks and the rapidly changing military situation make it necessary that alternative medical supply plans, procedures, and operations be formulated. In certain instances, it may be advisable to establish duplicate records, especially when automated procedures are used, to serve as a backup system. Medical supply levels of installation in forward areas should be kept at a minimum to permit relocation of such installations whenever necessary to provide adequate medical support to the mobile supported units.

(5) Overall space requirements are determined from supply control data and from experience factors for handling medical supplies. Detailed space

requirements should be based on specific assignments of support missions, supply levels to be carried, area and troop served, and types of supplies. Medical unit commanders and staff officers should have an appreciation of storage problems, particularly those pertaining to covered storage if they are to establish appropriate policies covering storage of medical supplies. Consideration must be given to large volume, special handling, and documentation.

(6) Maximum utilization of storage space is basic to economical supply operations. Such factors as accessibility of stored medical supplies, and maximum protection from deterioration, fire, weather, theft, rodents, and enemy action must be considered in ascertaining efficient storage procedures.

(7) Efficient methods should be employed to minimize unnecessary shipments, transshipments, and rehandling of medical supplies. So far as possible, shipments of medical supplies should be accomplished in one move and as far forward as possible. Movement of supplies through successive supply installations should be avoided.

(8) Closely allied with the handling of medical supplies is the control of physical inventories. Inventories will be conducted in accordance with ARs 710-2 and 40-61.

(9) Employment of proper medical supply practices requires that continuous care be exercised in the surveillance of all medical supplies, and in particular, of the deterioration type items. Items must be stored and cared for according to cargo classification. Deteriorating and potency type items must receive special consideration in the rotation of stocks.

(10) Medical supply activities will be located in areas where maximum security is provided. Such locations will be incorporated into plans for the CZ and COMMZ.

d. With certain restrictions, specified items and categories of items of medical supply are authorized for procurement locally within the theater.

Procurement of certain medical supplies from non-United States sources in overseas areas is not authorized unless specific prior approval of The Surgeon General is obtained. Consideration in the procurement of medical items from local sources should include manufacturer technical know-how, sterilization techniques, raw material availability, and production capabilities. Because of the nature of most medical items (mainly drugs and surgical instruments), sound judgment must be exercised. The high standards established by the US Government make it difficult to consider the use of manufacturers in many areas of the world as possible sources of drug supplies. Drug standards vary in different countries, and hence, foreign drugs are used only in emergencies. In practice, locally procured materiel is identified and segregated from similar items of US manufacture. Quality control procedures must be followed as prescribed in TB 740-10, AR 40-61, SB 8-75-9, and the Medical Unique Master Data File (MUMDF).

e. Representative samples of medical supplies and equipment captured from the enemy must be forwarded through command channels to medical intelligence personnel for evaluation and exploitation. When materiel cannot be evaluated, medical intelligence specialists can be requested to make onsite evaluation. The capturing units evacuate all the remaining captured supplies and equipment to designated collecting points where they are stored, maintained, and distributed in accordance with policies. Captured medical materiel will not be used for treatment of US personnel without specific approval of the command surgeon and until inspected by competent medical personnel. Since captured medical personnel are familiar with such equipment and supplies, captured materiel is of particular value in the treatment of EPWs and civil affairs requirements. Compliance with SOPs of the command with respect to captured enemy materiel is vital because of both intelligence value and potential value as issuable assets.