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FM 8-10

DEPARTMENT OF THE ARMY FIELD MANUAL

MEDICAL SERVICE

THEATER OF OPERATIONS

DEPARTMENT OF THE ARMY • *MARCH 1951*

AGO 3220B—Feb

DEPARTMENT OF THE ARMY FIELD MANUAL
FM 8–10

This manual supersedes FM 8–10, 28 March 1942, including C 1, 28 June 1946.

MEDICAL SERVICE

THEATER OF OPERATIONS



DEPARTMENT OF THE ARMY • *MARCH 1951*

United States Government Printing Office
Washington: 1951

AGO 3220B

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *22 March 1951*

FM 8–10 is published for the information and guidance of all concerned.

[AG 353 (20 Dec 50)]

BY ORDER OF THE SECRETARY OF THE ARMY:

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For explanation of distribution formula, see SR 310–90–1.

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PART ONE

GENERAL CHARACTERISTICS OF THEATER MEDICAL SERVICE

CHAPTER 1

GENERAL

1. PURPOSE

a. The purpose of this manual is to promote the understanding of the role of the Army Medical Service in the theater of operations.

b. This manual should be studied in conjunction with FM's 100–5, 100–10, 100–15, 101–5, and 101–10, particularly in connection with those sections dealing with organization for administration and support, command relationship and communication. In cases of conflict the provisions of these manuals will govern.

2. SCOPE

a. Missions, responsibilities, doctrines, and staff relations, as well as the organization and operation of the medical service at the several command levels and in varying tactical situations, are covered herein. The general territorial organization of a theater, its field combat units, command and technical channels, tactical concepts, and the responsibilities of command are included only to that degree considered essential to an understanding of the relation of the medical service to the total military effort.

b. For military terms not defined in this manual, see SR 320–5–1, and for list of training publications see SR 310–20–3 and SR 310–20–4.

3. THE ARMY MEDICAL SERVICE

The main concerns of the Army Medical Service are the maintenance of health and fighting efficiency. In peace, these present no special problems; in war, the picture is changed. Battle is designed to maim or kill. Fear, fatigue, and the primitive conditions of life in combat further open the door to disease and injury. The wall of protection that formerly surrounded the individual in his peacetime community no longer exists.

CHAPTER 2

ADMINISTRATIVE ORGANIZATION OF A THEATER OF OPERATIONS

Section I. TERRITORIAL

4. THEATER OF WAR

A theater of war includes those areas of land, sea, and air which are, or may become, directly involved in the conduct of war. Major territorial subdivisions are the zone of interior, theaters of operation, defense commands, and base commands as prescribed in FM 100–10.

5. ZONE OF THE INTERIOR

The zone of interior consists of that area of national and foreign territory exclusive of the areas included in theaters of operations. The mission of the zone of interior is to exploit and develop resources in men and matériel and make them available to the commander of field forces at the proper time, in the proper quantities, and at the locations best suited to the accomplishment of the combat mission.

6. THEATER OF OPERATIONS
(fig. 1)

A theater of operations is that portion of the theater of war necessary for tactical operations and for the administration incident to such operations. It must provide breadth and depth to secure room for maneuver, for security, and for operation of lines of communications.

a. A theater of operations is divided normally into a combat zone and a communications zone to assist in control. The combat zone contains the area necessary for ground combat operations and the immediate administration of the forces operating therein. The communications zone contains the area required for administration of the theater of operations as a whole.

b. A theater of operations may at first have only a combat zone, using installations and facilities of the zone of the interior to support the field forces. When a theater of operations is an island, group of islands, or some other isolated continental land mass, its strict division into combat and communications zones may never

be feasible. In ocean areas where theater of operation organization is influenced by limitations imposed by large bodies of water, "island commands" effect the administrative functions normally performed by a communications zone.

7. COMBAT ZONE

(fig. 1)

a. The depth of the combat zone depends on the size of the forces assigned, the nature of planned operations, ease of movement within the zone, important land features, and enemy capabilities. The combat zone is divided normally into army areas, each of which is the zone of operations and responsibility of a field army and is controlled by its commander. Two or more army areas may be combined into an army group area, with the area administrative responsibility of the army group commander normally limited only to that piece of land in which his headquarters is located.

b. Army administrative establishments and army service troops, normally located in the rearmost part of the combat zone (army service area), may be located anywhere throughout the combat zone, including the territory under control of subordinate combat commanders. In combat, rear boundaries are moved to keep pace with the movement of combat troops.

8. COMMUNICATIONS ZONE

a. The communications zone includes all the territory of the theater of operations between the rear boundary of the combat zone and the rear boundary of the theater. Its lateral boundaries are usually coextensive with that of the theater. It provides area for the proper operation and defense of the service and administrative agencies in support of the combat zone, and it may include areas necessary for the operation or support of air force units based outside the combat zone. The organization of the communications zone is adapted to the plan of operations and is based on actual conditions in the theater of operations. The organization is not necessarily the same in every theater.

b. For some operations the communications zone may become large enough to necessitate its subdivision into two or more base sections and advance sections in order to secure centralized control and decentralized operation. In a very deep communications zone it may be desirable to organize a series of sections from front to rear, and to designate them as advance, intermediate, and base sections. In any event, the area is subdivided only to that degree necessary to carry out properly the functions of the communications zone. Sections may themselves be territorially subdivided

into bases, areas, or districts which may be a continuation of one another or may be separated by large water or land areas.

9. REFERENCE

For further details on theater territorial organization see FM 100–10 and FM 100–15.

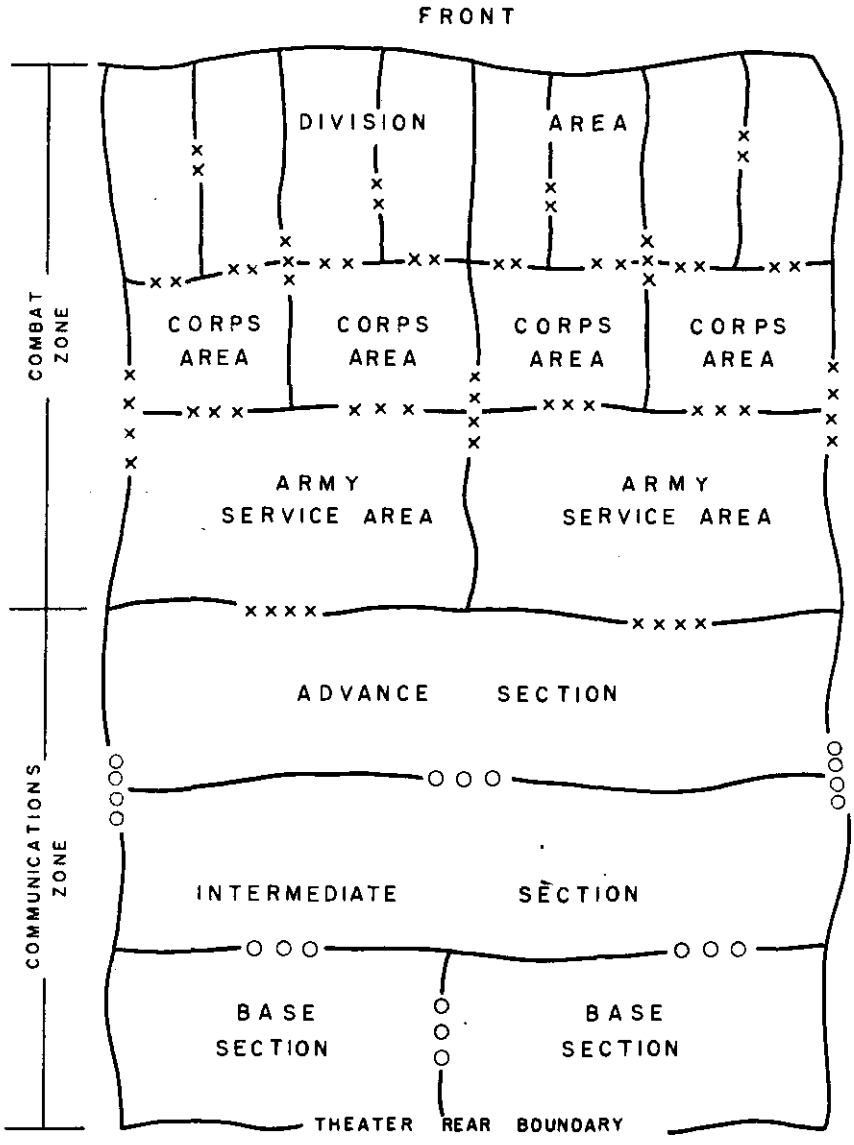


Figure 1. Theater of Operations.

Section II. COMMAND

10. THEATER COMMANDER
(fig. 2)

The theater commander directs combat operations and is responsible for the administration of all military agencies in the theater and for such civil government as may be appropriate under the situation. He formulates and issues over-all plans and broad directives necessary to coordinate the activities of Army, Navy, Air Force, and task forces under his command. He exercises command principally through the theater Army commander, the theater Navy commander, the theater Air Force commander, and joint task force commanders, if any have been designated. A joint staff assists the theater commander in carrying out his mission.

11. THEATER ARMY COMMANDER
(fig. 3)

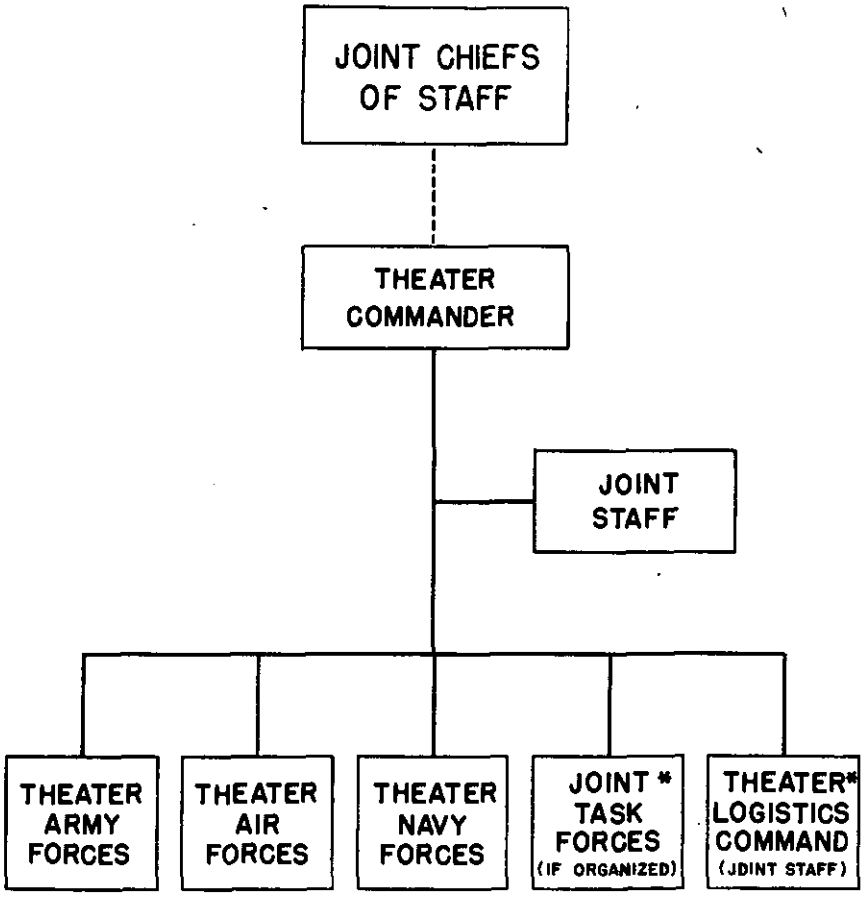
The theater Army commander is responsible to the theater commander for the administrative operations of all Army forces in the theater. He may also be responsible for the tactical operations of Army forces in the theater if no joint task force commander has been designated. He exercises command through army groups or armies, the communications zone, and the Army replacement command.

12. COMBAT ZONE COMMANDERS

a. Army Group Commander. The army group commander is responsible for the tactical operation of two or more field armies with suitable reinforcements.

b. Field Army Commander. A field army commander is responsible to an army group commander, a theater Army commander, or the theater commander, depending on the organization within the theater. He is responsible for combat and administrative operations within his field army, which consists of a variable number of corps, divisions, and service elements in the immediate support of the ground and air units within the army area.

c. Corps Commander. The corps commander is responsible to the field army commander for combat operations and certain administrative functions. The corps is primarily a tactical unit consisting of a few corps units and a variable number of divisions and miscellaneous units allocated by the field army commander in accordance with the tactical requirements. As a part of a field army,



--- INDICATE BROAD POLICIES AND DIRECTIVES.
* ORGANIZATIONS ESTABLISHED BY THEATER COMMANDER, IF REQUIRED.

Figure 2. Typical organization chart of a theater of operations.

the corps has few administrative functions. When the corps is detached from the army for combat, or other operations, it becomes a self-sustaining unit. As such, it must perform all aspects of its administration and operate the service installations necessary for its administrative support. This will necessitate reinforcement by the assignment or attachment of additional service elements.

d. Division Commander. The division commander is responsible for combat and administrative operations within the division. Included as integral parts of the division are service elements for the immediate support of the division such as engineer, medical,

military police, ordnance, quartermaster, and signal units. The division commander deals directly with the army commander on all matters of administration, except on the allocation of ammunition and the establishment of the division rear boundary. He may be required by corps to furnish copies of periodic and other reports of an administrative nature. Generally, requests for additional troops, especially service troops, are referred to the army commander through the corps commander.

13. COMMUNICATIONS ZONE COMMANDERS (fig. 3)

The communications zone commander is responsible to the theater Army commander for the administration of the communications zone. It is his responsibility to render full administrative suport of all army units located in the theater, and for such administrative support of the Department of the Navy, Department of the Air Force, and allied forces as may be directed. He also exercises territorial control for the theater army commander within the communications zone. He coordinates closely his activities with the supported Air Force, Navy, and Army commanders. He receives directives from the theater Army commander. He formulates policies, prepares short- and long-range plans for the support of current and future operations, and handles the details of administrative support with the zone of interior. He decentralizes operations within the communications zone to section commanders and to the commanders of such intersectional services and commands as he may create. He uses the troops assigned to the communications zone by the theater Army commander for the operation of its establishment and for its defense.

a. Section Commander. The section commander commands a major subdivision of a communications zone and is responsible to the communications zone commander for the operation therein of such functions as are assigned to him. When necessary, sections may be subdivided into districts (areas or bases), each being charged with such functions as may be assigned.

b. District (Area or Base) Commander. The district (area or base) commander is responsible to the section commander for such functions as are assigned to him. The district (area or base) commanders ordinarily are not delegated responsibility for administrative support of other forces or for control of major administrative operations, except in cases of isolated districts (areas or bases) which are separated by large expanses of water or great distances.

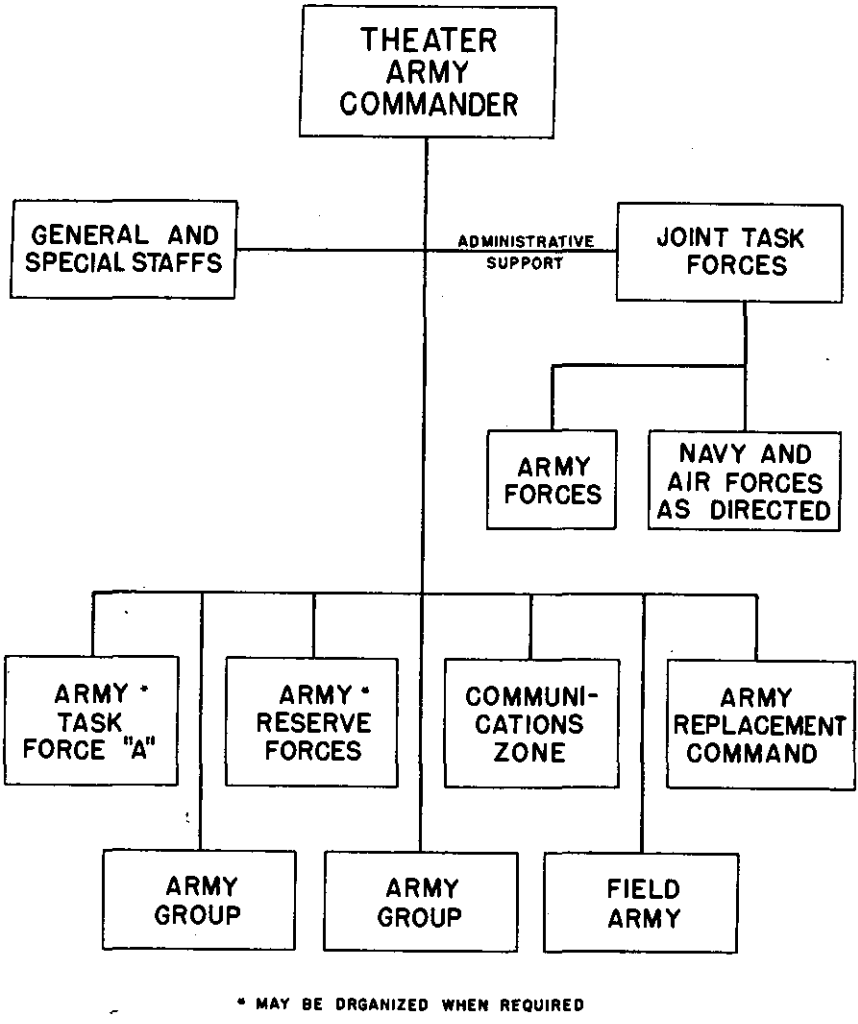


Figure 3. Typical organization of theater army forces.

14. OTHER COMMANDERS

Other commands, such as task forces, reserve forces, and replacement commands may be organized within the theater when required. The commanders of these elements are responsible for the administration and operation of those specific functions as may be designated by the theater commander.

15. REFERENCE

For further details on command and command relationships see FM 100–10 and FM 100–15.

Section III. STAFF

16. GENERAL

Each of the commanders previously discussed has a staff to assist him in the exercise of his command responsibilities. This staff performs both administrative and operational functions. The organization of the staff is the responsibility of the commander. In most commands, however, it consists of two parts, a general staff and a special staff. The general staff deals with problems concerning personnel, intelligence, operations and training, and supply and evacuation. The special staff includes chiefs of the basic and special branches who are concerned with certain specialized responsibilities such as transportation, medical care, and pay of the Army. The surgeon of any command is a member of its special staff. Special staff members usually accomplish their mission by working directly with the members of the various general or special staff divisions rather than directly with their commander. (For further details on staff organization see FM 101–5.)

17. SPECIAL STAFF OFFICERS

The special staff officer at any command level represents his service. The medical service is represented by a Medical Corps officer. He is designated as the "surgeon." When serving as the medical member of the special staffs of the theater commander and theater Army commander, he is designated as "chief surgeon." Although a technical expert, the surgeon is a staff officer and, as such, has the responsibility of assisting his commander in the exercise of his command responsibilities. His principal duties, as of all other special staff officers, are advisory, planning, and supervising. Specifically he—

a. Exercises operational control of all medical units not assigned or attached to subordinate commands.

b. Advises the commander and staff on matters pertaining to medical and veterinary services of the command and occupied territory.

c. Determines requirements for, procures, stores, distributes, issues, and documents medical, dental, and veterinary supplies.

d. Makes recommendations for procurement and employment of medical troops and their allotment to subordinate units.

e. Prepares and supervises training programs of the medical units under his operational control and exercises technical super-

vision over medical training throughout the command, including sanitation, first aid, and hygiene for all troops.

f. Plans and supervises operation of the medical service including the following:

(1) A system of evacuation and hospitalization.

(2) Preventive medicine within the command and in occupied territory.

(3) Professional medical service in subordinate units.

(4) Veterinary food inspection service and animal veterinary service of the command and occupied territory.

(5) Preparation of reports on and custody of the records of sick and wounded.

(6) Medical maintenance and repair facilities.

(7) Examination and processing of captured medical supplies and necessary inspection service for captured animal and food supplies.

(8) Collection, evaluation, and dissemination, in coordination with G–2, of information concerning enemy medical activities.

18. PLANNING

Planning is a continuous process in any staff. It is usually classified as current, short range, or long range. The closest coordination must exist between combat and administrative planning. Combat plans must be examined well in advance by special staff officers in order that they can plan in time to assure service support of the combat troops.

19. THE SURGEON AND THE GENERAL STAFF

The diversified activities of the medical service require the surgeon to deal with all sections of the general staff or, in commands lacking one or more general staff sections, with the staff officers discharging such general staff functions. Insofar as the surgeon is concerned with any of the following functions, he deals with the general staff sections indicated.

a. G–1 Section.

(1) Reports of human casualties.

(2) Morale, personnel matters, and replacements for medical units.

(3) Medical problems associated with prisoners of war.

(4) Employment of prisoners of war to reinforce the medical service.

(5) Medical problems associated with civil affairs in the control of inhabitants of occupied territories, displaced persons, and refugees.
(6) Discipline, law, and order as applicable to the medical service.

b. G–2 Section.

(1) Diseases occurring in enemy forces and in enemy occupied territory.
(2) Nature and characteristics of weapons, missiles, gases, and other casualty-producing agents employed by the enemy.
(3) The character of the organization, operations, and equipment of the enemy, especially as it affects the medical service.
(4) G–2 functions as they apply to prisoners of war in medical installations.
(5) Requests for information in regard to the enemy.

c. G–3 Section.

(1) Current information of the tactical situation including combat operations, future plans, reconnaissance, and security measures.
(2) Mobilization and training of medical units; training of all personnel in military sanitation and first aid.
(3) Signal communications in medical installations.
(4) Allocation of medical units to subordinate commands.

d. G–4 Section.

(1) Supply matters, both general and medical.
(2) Evacuation by higher headquarters.
(3) Hospitalization.
(4) Tactical dispositions of medical units, including movement of medical units.
(5) Reinforcement of the medical service by a higher command.
(6) Sanitation.
(7) Shelter for medical troops and installations.
(8) Traffic control and restrictions affecting medical vehicles.
(9) Coordination of nonmilitary welfare and relief agencies in medical installations.
(10) Transportation required for medical units and supplies.
(11) Construction of facilities for medical units.
(12) Allocation of real estate for medical units.
(13) All other matters which have not been specifically allotted to another general staff section, or wherein there is doubt as to which section has jurisdiction.

20. THE SURGEON AND THE SPECIAL STAFF

The expenditure of much time and energy may be spared the general staff by the close cooperation of the surgeon with other members of the special staff. Procedures followed in peacetime training should be formulated with a view to wartime operations. Agreements among special staff officers promote efficiency as well as foster the friendly personal relations that are so essential to the smooth functioning of a staff. The more important special staff contacts of the surgeon will be with the—

a. Engineer, regarding—
- (1) Hospital and general construction; repair and maintenance of roads; equipment and structures used by the medical service.
- (2) Water supplies; sewerage systems.
- (3) Electrical utilities.
- (4) Procurement of land and existing shelter for medical troops and installations.
- (5) Road construction and maintenance in and around medical installations.
- (6) Insect and rodent control and fumigation of buildings.
- (7) Camouflage measures.
- (8) Preparation of signs.
- (9) Surveying and mapping.
- (10) Fire protection.

b. Quartermaster, regarding—
- (1) General supplies for medical units.
- (2) Procurement and operation of utilities allocated to the Quartermaster Corps, such as laundry service.
- (3) Bathing, delousing, and laundry facilities for all troops.
- (4) Clothing for gassed cases and other casualties returning to duty.
- (5) Disposition of the dead at medical installations; the sanitary aspect of the disposition of all dead.

c. Transportation Officer, relative to—
- (1) Transportation, land and water.
- (2) Motor and animal transport of medical units.

d. Chemical Officer, regarding—
- (1) Biological, radiological, and gas defense of medical troops and installations; gas masks for casualties.
- (2) Toxicology and pathology of new gases.
- (3) Types of gas used and methods of identification.

e. Adjutant General, regarding—
- (1) All official correspondence through command channels.
- (2) Pertinent personnel matters.

(3) Postal service for medical units and installations.

f. Signal Officer for signal communications for medical installations.

g. Judge Advocate, relating to—

(1) Administration of military justice in medical units.

(2) Questions of military and civil law.

h. Headquarters Commandant, relative to physical arrangements for the surgeon's office.

i. Inspector General, regarding conduct of inspections and investigations affecting the medical service of the command as prescribed by Army Regulations.

j. Provost Marshal, relative to—

(1) Provision of guards for prisoner-of-war casualties in medical installations.

(2) Provision of guard detachments for medical installations.

21. COMMAND AND TECHNICAL CHANNELS

Command and technical channels are used to control the flow of directives, orders, and other official communications between the various commands. They are employed as follows:

a. Command channels are used to transmit directives, orders, instructions, and other official communications to subordinate units and to receive correspondence from them (except as noted in *b* below).

b. Technical channels may be used by special staff officers within the limits of, and in the manner prescribed by, the commander to handle routine technical reports and instructions not involving variations from command policies and directives.

c. All functions of medical service which are associated in any way with command responsibilities are administered through command channels. Other functions are administered through Army Medical Service (technical) channels.

22. THEATER CHIEF SURGEON

The theater chief surgeon, as a member of the theater joint staff, has access to all members of the theater staff and to the theater commander himself.

a. He has general technical supervision over the medical service of the entire theater. He prepares over-all medical plans and broad directives necessary to coordinate interdependent activities of the operating medical services of the Army, Navy, Air Force, and task forces in the theater. He coordinates the joint use of medical facilities by all forces in the theater when it is found that such

coordination improves medical practices, utilizes the personnel of the medical service more adequately, and economizes in the use of medical and other means.

b. His main objective is to assist each of the interdependent operating medical services in performing its respective functions.

c. To assist him in the performance of his duties, the chief surgeon is provided with the necessary assistants from the various forces in the theater.

d. There is no prescribed or established form for the internal organization of the theater chief surgeon's office.

23. THEATER ARMY CHIEF SURGEON

The theater Army chief surgeon is a member of the special staff of the theater Army commander. As such, he has access to all other members of the theater Army staff and to the theater Army commander himself.

a. Mission. The general mission of the theater Army chief surgeon is—

(1) To conserve military manpower through appropriate disease preventive measures; adequate medical, surgical, and dental treatment; regulated evacuation; and suitable hospitalization.

(2) To assure proper technical training of all Army Medical Service troops of theater Army forces.

(3) To assure the supply of medical equipment and supplies in such quantities and at such times as are required for the forces supported.

b. Functions. Normally it is the responsibility of the theater Army chief surgeon to—

(1) Provide information and technical advice to the theater Army commander, and to his general and special staffs; and keep them constantly informed as to the condition, capabilities, and requirements of the medical service in respect to personnel, equipment, and establishments to meet future needs.

(2) Maintain general technical supervision over the medical service of the theater Army forces as a whole.

(3) Prepare operational plans based on command decisions with respect to activities of the Army Medical Service.

(4) Supervise professional treatment methods (medical, surgical, nursing, and veterinary) throughout the theater.

(5) Determine and supervise implementation of vaccination, inoculation, and other health protective measures required by Army personnel.

(6) Recommend and supervise the sanitary measures to be enforced in all localities where troops are located.

(7) Recommend the appropriate contents of the soldier's ration from the standpoint of health.

(8) Supervise the health inspection of meat, meat food, and dairy products to be consumed by troops.

(9) Supervise the medical aspects of control and prevention of disease and injury in troop areas.

(10) Maintain technical supervision over Medical Service training activities, excluding dental; designate special training personnel; prepare curricula for the various Army Medical Service schools; and prepare special training publications.

(11) Determine personnel requirements and supervise distribution of specialized personnel of the Medical Service as deemed necessary to accomplish the mission of the theater Army medical service.

(12) Recommend the distribution of medical units to major commands.

(13) Investigate the desirability of hospital sites and advise upon the technical suitability of hospital construction for the hospitalization of men and animals.

(14) Supervise the distribution of patients in Army hospitals, the movement of patients from combat zone to communications zone, the movement of patients between fixed installations, and the movement of patients to ports in transit to the zone of interior.

(15) Determine future requirements of medical supplies and equipment and periodically reappraise and distribute information with respect to such supplies and equipment, indicating both the quantity needed and the timing involved.

(16) Determine procurement policies and procedures for Medical Service supplies and equipment in the theater within the limit of policies determined by higher authority.

(17) Supervise the operation of medical depots, and of the medical sections of general depots within limits prescribed by higher authority.

(18) Formulate fiscal policies pertaining to the Army Medical Service and exercise control of Army Medical Service funds.

(19) Develop new, improved, or special types of supplies and equipment to meet the particular requirements of the medical service of the theater.

(20) Recommend physical standards for retention in the theater of officer and enlisted personnel in all branches of the Army.

(21) Supervise and coordinate public health aspects of military government activities when applicable.

(22) Compile records of medical statistics for Army forces in the theater.

(23) Make such technical inspections and call for such technical reports from all units of the theater on matters pertaining to the medical service as are necessary to insure proper execution of the plans of the theater Army commander.

24. OFFICE OF THEATER ARMY CHIEF SURGEON

The internal organization of the theater Army chief surgeon's office is the prerogative of the chief surgeon, subject to approval of the theater Army commander. It includes those divisions necessary to enable the chief surgeon to perform his assigned functions.

a. Its size and composition vary in accordance with the strength of the Army forces in the theater, the nature of military operations to be conducted, and the specific responsibilities assigned. In addition to the chief surgeon and his deputy or deputies, the office may be divided into the following divisions: Administrative, field survey, historical, hospitalization, medical records and statistics, nursing, operations, personnel, professional services, preventive medicine, supply, and veterinary. Such divisions are subdivided into appropriate branches. For example, the operations division may be subdivided into sections as follows: planning, requirements, evacuations, troop movements, training, intelligence, and civil affairs.

b. In any case, the chief surgeon's office must be organized to conform to the pattern of centralization or decentralization dictated by the theater Army commander. In general, it concerns itself with broad planning and supervision, leaving the development of more detailed plans and their implementation to surgeons of subordinate headquarters.

25. OPERATIONS

a. Functions normally retained at theater Army headquarters include—

(1) The formulation of plans for the over-all operations of the theater Army medical service.

(2) Supervision of the movement of patients from the combat zone to the communications zone and of the distribution of patients in the communications zone.

(3) Approval of the establishment and closure of fixed medical installations in the communications zone.

(4) Formulation of training policies and the supervision of Army Medical Service technical training.

b. Functions normally decentralized to communications zone headquarters within its area of responsibility include—

(1) Formulation and *implementation* of medical plans in conformity with medical plans of theater Army headquarters.

(2) Distribution of patients in communications zone hospitals.

(3) The movement of patients between fixed installations and the movement of patients to ports in transit to the zone of interior.

(4) Assignment and operation of medical units, except that approval of the establishment and closure of fixed hospitals is retained at theater Army headquarters.

(5) Implementation of training directives of theater Army headquarters pertaining to communications zone troops.

26. HOSPITALIZATION

a. Functions normally retained at theater Army headquarters consist of—

(1) Approval of fixed hospital sites.

(2) Determination of general construction standards and scales of accommodation for hospitals and general dispensaries.

(3) Approval of requests for construction over and above authorized standards and scales of accommodation.

(4) Auditing of hospital funds and maintenance of the central hospital fund.

b. Functions normally decentralized to communications zone headquarters within its area of responsibility include—

(1) Responsibility for acquisition of hospital sites.

(2) Responsibility for coordination of hospital construction with communications zone engineers.

(3) Approval of the design plans for conversion of sites for hospital use within established theater standards.

(4) Responsibility for maintenance and upkeep of hospitals and dispensaries.

(5) Responsibility for implementing policies and procedures of higher headquarters relating to hospitalization.

27. MEDICAL SUPPLY

a. Medical supply functions normally retained at theater Army headquarters include—

(1) Over-all supply planning for theater Army forces and other forces which must be supported.
(2) Establishment of over-all supply policies, supply levels, and priorities for the distribution of supplies to major commands.
(3) Supervision of the operation of the medical supply system of the theater Army forces.
(4) Supervision of the obligation of Army Medical Service funds.

b. Functions normally decentralized to communications zone headquarters within its area of responsibility include—

(1) Procurement of military and civil affairs medical supplies.
(2) Supervision of depot operation and the receipt, classification, storage, and disposition of military, civil affairs, and captured medical supplies.
(3) Supply of Navy and Air Forces in accordance with procedures established in the theater.
(4) Control of distribution of stock to medical supply installations.
(5) Maintenance of records of status of medical depot stocks.
(6) Supervision of expenditure of Army Medical Service funds.
(7) Supervision of medical maintenance and repair service.

28. PERSONNEL

a. Functions normally retained at theater Army headquarters consist of—

(1) Personnel planning, including the estimation of medical service personnel requirements.
(2) Submission of consolidated personnel requirements to the zone of interior.
(3) Assignment of key officer personnel.
(4) Assignment of personnel of the Medical Service to major commands, and transfer of personnel when such transfer involves change of major command jurisdiction.
(5) Maintenance of Medical Service strength statistics.
(6) Professional classification of officers of the Medical Service under policies established by the Surgeon General, Department of the Army.

b. Functions normally decentralized to communications zone headquarters within its area of responsibility include—

(1) Implementation of personnel policies of theater Army headquarters.

(2) Personnel adjustments other than key personnel.

(3) Processing of recommendations for professional classification officers of the Medical Service.

(4) Consolidation of personnel requisitions.

(5) Supervision of civilian employment in medical installations.

(6) Maintenance of records of personnel of the Medical Service by professional qualifications and military occupational specialty.

(7) Supervision of assignment of enemy and allied protected personnel to medical installations.

29. MEDICAL RECORDS AND STATISTICS

Compilation and evaluation of medical records may be retained as a responsibility of theater Army headquarters or assigned as a responsibility of communications zone headquarters.

30. SURGEONS OF OTHER COMMANDS

The responsibilities of surgeons of subordinate command levels are discussed in succeeding paragraphs.

CHAPTER 3

MEDICAL SERVICE, GENERAL CONSIDERATIONS

Section I. GENERAL CHARACTERISTICS OF THE MEDICAL SERVICE

31. MISSION

The mission of the medical service in a theater of operations is to contribute to the success of the military effort through—

a. Conserving Manpower. Military strength is preserved by seeing that only the fit take the field, by the protection of troops against unnecessary hazards to health and efficiency, and by effective care and early return to duty.

b. Preventing the Adverse Effects of Unevacuated Casualties on Combat Efficiency. Casualties within any combat unit restrict its movement. Lack of care and proper evacuation reduces the soldier's willingness to take necessary risks. Both can be prevented by adequate medical aid and rapid orderly evacuation.

32. GENERAL RESPONSIBILITIES

General responsibilities of the medical service are—

a. The evacuation, care, and treatment of sick and injured men and animals.

b. The recommending of necessary measures to insure the health of troops and animals.

c. The supervision of all public health measures in occupied territory.

d. The procurement, storage, and distribution of medical supplies.

e. The preparation, classification, and preservation of records of sickness and injury for the information of higher authority, for use in future planning, and for assistance in the future adjudication of claims.

f. The training of all personnel of the Medical Service, except dental, and supervision of the training of all personnel of the command in hygiene, first aid, and military sanitation.

g. The submission of timely information and recommendations to the proper authority upon all matters within the scope of the medical mission.

a. Decision is a function of command and the military leader weighs his medical means with the same degree of care used in evaluating ammunition, food, gasoline, and other combat requirements. It is a staff function to elaborate the details necessary to carry decisions into effect.

b. Medical service must be planned and operated in conformity with the plans and general policies of the commander. This requires that the surgeon be conversant with the plans and intentions of the commander at all times.

c. The commander must insure that adequate means are made available for the accomplishment of the medical mission.

d. Effectiveness of medical service frequently is a function of time rather than of thoroughness. Simple measures, instituted early, often contribute more to combat efficiency than more elaborate measures instituted too late.

e. Medical plans are adequate only when they provide employable and sufficient means *within* the theater of operations. Epidemics and interrupted evacuation from a theater to the zone of the interior are ever present threats. The possibility that evaluation of enemy capabilities has not reflected the effects of new weapons and techniques in increasing casualty rates cannot be disregarded.

f. Casualties never adjust themselves to conform to the medical means available at a given point at a given time. But it does not follow that casualties will stop when local medical means are exhausted. Planning must, therefore, incorporate measures for meeting unpredictable peak loads.

g. Any decision must be based on the constantly interplaying factors of time; distance; dispersion; casualty rates; distribution of units; receipt of units; evacuation policies; available methods of evacuation; availability and priority of equipment; availability and priorities of water, surface, and air transportation; time lag between the requisition and development of hospital plant sites; the necessity for providing a reserve; and the ever changing strategic and tactical situations. No one of these factors is entirely independent of the other. The larger the theater of operations and the faster the progress of military operations, the more important will they become and the more difficult to evaluate. Only when a situation becomes static is it possible to approach ideal planning and operating conditions.

34. GENERAL DOCTRINES

a. Commanders at all levels are responsible for the provision of adequate and proper medical care for noneffectives of their command.

b. Medical service must be continuous.

c. A soldier must be moved no farther to the rear than that point where he can receive medical care required for return to battle.

d. Sorting of the fit from the unfit will take place at each medical installation in the chain of evacuation.

e. Casualties in the combat zone will be collected at medical installations along the general axis of advance of the units to which they belong.

f. Medical units of the combat zone must possess and retain a degree of mobility that will enable them to operate in direct support of combat elements.

g. Mobility of medical installations in the combat zone will be assured through prompt and continuous evacuation by units operating in the rear.

h. Medical units must be disposed so as to render the greatest service to the greatest number.

i. Medical treatment will be standardized throughout all levels of medical care to guarantee consistent treatment anywhere in the chain of evacuation.

j. That fraction of the sick and wounded that will require a long period of medical care must be rapidly moved to the rear with the least possible interference with combat operations.

35. PREVENTION OF DISEASE AND INJURY

a. The essentiality for physical fitness is a critical factor in the combat efficiency of troops. Military history is rampant with examples of battles that were lost and campaigns that failed solely because the troops were immobilized by disease. Situations arise in every war in which the health of troops must be temporarily subordinated to military necessity, but consistent disregard of the health of troops, as history has shown, leads ultimately to disaster.

b. The prevention of disease and injury is one of the most important functions of medical service. Every contact and activity of the soldier which may affect his physical fitness is a proper concern to the surgeon.

c. In addition, the surgeon is responsible for industrial health hazards and practices as a means of conserving manpower and maintaining a high rate of productive effort among troops and supporting elements.

d. It is the responsibility of the unit surgeon to keep his unit commander fully informed of the sanitary problems in his command and make appropriate recommendations for the correction of any health hazards.

36. SUPPLY

a. Responsibility. The surgeon at each level is responsible for the estimation of requirements and for the procurement, storage, issue, and distribution of all medical supplies and equipment necessary for the care and treatment of the sick and wounded.

b. Property Exchange. In transferring a casualty from one medical installation to another there are certain medical properties that cannot well be separated from him. Such property includes blankets, splints, tourniquets, and litters. To prevent rapid and unnecessary depletion of the supplies and equipment of the transferring installation, the receiving installation is charged with turning over to the transferring installation a like number of the same items of medical property. This procedure is termed "property exchange" and must be practiced, to the fullest extent possible, through all phases of evacuation from the foremost aid station back through the fixed hospitals of the communications zone.

37. SUPPLIES SUBJECT TO CAPTURE

Military medical equipment and supplies, in danger of imminent capture and not required for the care of wounded or sick military personnel whom the Army may be compelled to abandon to the enemy, will be evacuated to the greatest extent possible. However, if such medical matériel cannot be evacuated, it shall not be intentionally destroyed.

Section II. FUNCTIONAL ORGANIZATION

38. ORGANIZATION AND OPERATION

Medical service in a theater of operations is divided into four distinct and mutually supporting patterns. They are unit, division, corps and army, and communications zone medical services. The first three types serve with tactical units and are accordingly made up, in the main, of fixed medical units.

a. Unit Medical Service. This is furnished by the organic personnel of the Medical Service with all units of arms and services (except medical and certain service units of the communications zone) of the size of a separate battalion or larger. Such personnel are called unit medical personnel and are an organic part of the unit to which they are assigned.

(1) In the case of infantry regiments and airborne infantry regiments, this need is met by the attachment of battalion medical platoons from the regimental medical company. (See Regimental Medical Service, chapter 4, section II. For characteristics of the medical service of the armored division, see chapter 12.)

(2) In noncombat situations the unit medical service furnishes dispensary care to casualties from within their respective units and keeps their commanders advised as to unit sanitation, necessary measures for disease prevention, and the health of the command. In conditions approaching combat, and in combat, they afford to their units, medical service including the provision of medical aid and treatment to casualties, casualty collection and evacuation, and the operation of aid stations and collecting stations.

(3) Units of the theater without such authorized personnel are furnished unit medical service either as satellites on nearby units or by the attachment of medical personnel.

b. Division Medical Service. This is a highly mobile medical service. The division medical battalion of infantry and airborne divisions evacuates the collecting stations of the regimental medical companies. In the armored division the battalion aid stations are evacuated by the division medical service. In all types of divisions the division medical service operates one or more division clearing stations to the rear. (See chapter 4, Medical Service in the Infantry Division; chapter 11, Medical Service in the Airborne Division; and chapter 12, Medical Service of the Armored Division.)

c. Corps and Army Medical Service. This is characterized by the presence of mobile hospitals capable of affording more detailed medical care to the casualty. Corps has no organic medical service but may assume operational control of such units as may be allocated by the field army. (See chapter 13, Medical Service in the Corps and Army.)

d. The Medical Service in the Communications Zone. The picture here is dominated by large fixed hospitals affording to the sick and wounded detailed and prolonged medical care. (See chapter 16, Hospitalization.)

39. FUNCTIONAL CAPACITY OF UNITS

Like units in other arms and services, medical units are designed to carry a rated load. (Example—general hospital, 1,000-bed.) When units must function at more than rated capacity for other than short periods of time, they will require reinforcements if they are to maintain functional efficiency.

Section III. GENERAL TACTICAL CONSIDERATIONS

40. TACTICAL DOCTRINES OF MEDICAL SERVICE

From the mission and characteristics of medical service originate certain doctrines governing the tactical employment of medical troops. The more important are—

a. Medical service must possess flexibility. The allotment of medical means is based upon the military situation and the tactical plan in being at the time. Changes in the situation may dictate rapid redistribution of medical means. An adequate reserve is the most positive assurance of flexibility. So long as the commander retains a reserve of combat units, a commensurate reserve of medical units must be held to support this reserve when committed. When his medical reserve has been exhausted, or depleted to the point of inadequacy, it is the first concern of the surgeon to reconstitute a suitable reserve from units already committed. If this is impossible, he must seek reinforcements.

b. Mobile medical units must retain their mobility. The essence of adequate medical service lies in maintaining contact with the combat elements supported. Medical units should retain mobility as long as possible by only partially establishing their stations until the demands of the situation require commitment of their total means. Once entirely committed, the only way the mobility of a medical unit can be regained is by promptly evacuating the casualties therein. An immobilized medical unit can continue its support only in a "stabilized" situation. In the advance, it must be kept mobile or replaced with another unit. In a retrograde movement, it may necessarily have to be abandoned.

c. The zone of responsibility for evacuation assigned to any medical unit lies to its front rather than to its rear. No level of medical service is normally given a responsibility for evacuation that extends farther than its rearmost medical installation.

d. In combat, the necessity for medical operations arises the minute contact is gained. Casualties begin to accumulate as soon as troops come under fire. Care and prompt evacuation are as important then as they ever will be. This dictates that medical units in support of combat elements must be at all times disposed in a manner that will facilitate their entry into action. The surgeon must keep abreast of tactical developments in order to be ready to initiate combat medical service without delay.

e. Preferential medical support is given to combat elements that have the more important missions. This agrees with the tactical procedure of placing the bulk of combat means behind any decisive effort; but there is another reason for such a distribution

of medical means. The task of the medical service is greatly influenced by the frontages occupied by, and the movement under fire of, combat troops. In general, the principal effort of combat troops is expected to make the greatest progress. This again indicates a denser concentration of troops at that point than at other parts of the front, and more movement under fire. These two factors will produce a greater proportion of casualties than would normally occur in other parts of the command.

f. The operation of essential medical installations will not be terminated until their functions have been assumed by another agency. Evacuation is a continuing function, and one that cannot be suspended while adjustments are being made. A reasonable time must elapse after the opening of a new installation before the old one is closed, in order that casualties already en route to the old installation may be received. The length of this time lag in closing the old station will depend upon the agencies to be advised of the change and the length of time required for them to divert their casualties to the new site.

g. The support required by a forward medical unit is determined by the number of casualties occurring and the rate at which they can be collected. Neither element is governing, and they must be considered together in a medical estimate of the situation and in the allotment of medical means.

h. Medical problems are highly correlated with tactical problems. The same hostile fire that stops combat troops retards or prevents the evacuation of casualties. Terrain that is difficult for troops to traverse lends even more difficulties to the movement of the wounded. Weather that embarrasses tactical operations usually increases the number of sick to be evacuated.

Section IV. EVACUATION AND HOSPITALIZATION

41. EVACUATION
(fig. 4)

a. Evacuation is the process of moving casualties from one medical installation to another farther to the rear. The term "chain of evacuation" is applied to the entire group of successive agencies and installations engaged in the collection, transportation, and hospitalization of the sick and injured. The forward terminus of a chain of evacuation is usually at an aid station and the rearmost terminus at a general hospital. As one moves rearward, each new type installation is seen to sacrifice mobility to a more detailed type of medical care.

b. Of all medical tasks, the most difficult, and in combat the most important, is the evacuation of casualties. Commanders at all levels must realize the magnitude and the importance of this function. The evacuation of casualties is in the nature of a major withdrawal. In operating against strong resistance, as many as one-fifth of all troops engaged and a much greater proportion of certain elements may require evacuation within a relatively short period. The task is difficult under the most favorable circumstances because of the numbers involved; it is further complicated by other factors. Withdrawal must be made against a constant forward flow of combat troops and supplies and with a minimum of interference to these vital activities. Casualties must be gathered as individuals from the most forward elements of the combat forces. They are not self-supporting but require individual care and treatment through all stages of their withdrawal, a large proportion being unable to walk and requiring carriage in some form. In forward areas, especially, evacuation will meet with trying conditions of weather, terrain, and combat. Efficient evacuation is tremendously expensive in manpower and transportation means. Property exchange must be carried on in spite of difficulties confronting such procedure.

(1) *Sorting of casualties.* As previously noted, no casualty must be permitted to go farther to the rear than his physical condition requires or the military situation demands. The sorting of the fit from the unfit is, therefore, a most important function of every medical agency from the aid station to the fixed hospital in the communications zone. Every case evacuated without sufficient reason imposes an unnecessary burden upon three agencies: the man's organization, which must go shorthanded until he is returned or replaced; the replacement system, which must procure, equip, train, and transport a man to take his place; and the medical service, which must provide an additional berth in ambulances and trains, an additional bed in a hospital, and additional medical trained personnel to care for him. The problem created by one such case is not impressive, but the total effect of indifferent sorting of casualties might well jeopardize the success of any combat operation. Unnecessary evacuation of casualties is of the nature of subsidized straggling. The mere fact that an illness or injury exists is not enough to justify the evacuation of the case. The illness or injury either must be incapacitating, in fact, or of such character that serious consequences may result if the soldier is returned immediately to full duty. This decision is often difficult

when there is little time for observing cases. When the tactical situation will permit, reasonable doubt must act in favor of the individual. Through proper attention to the sorting of casualties, however, the number of cases evacuated unnecessarily can be materially reduced.

(2) *Concentration of casualties.* It is both uneconomical and inefficient to undertake the care, treatment, and continuous evacuation of the sick and injured in very small groups. Medical units in the combat zone habitually concentrate casualties from two or more installations in their front in order to effect the economies inherent in mass evacuation and treatment.

(3) *Abandonment of casualties.* In rapid movements to the rear, it is frequently impossible to evacuate all casualties with the facilities made available to the medical service. In such a situation three courses of action, either alone or in combination, are possible. The speed of the movement may be retarded to permit evacuation with the transportation available; the medical service may be reinforced; or the casualties may be abandoned to the enemy, with a detachment of medical troops sufficient for their care. This is a command decision. It is the duty of the surgeon to present to the commander information necessary for him to arrive at his decision, but the commander alone must decide whether or not to abandon his casualties in whole or in part.

(4) *Choice of transportation.* The military situation, type of country, road net, rail net, and the like govern the choice of transport for moving casualties. In any instance, they must be moved by the safest, the most comfortable, and most efficient transportation available. Near the immediate front, litters carried by bearers are ordinarily the only feasible means. Wheel transport is substituted for manpower as soon as the situation permits. If there is an insufficient number of ambulances, other vehicles returning to the rear may be pressed into service. As soon as practicable, hospital trains, hospital ships, or air transport are substituted for the motor vehicle.

42. DISTRIBUTION OF CASUALTIES IN TIME AND SPACE

Experience tables, setting forth the distribution of casualties by units by days of combat, do not present an accurate picture of the distribution of these casualties in the smaller units in time and space. If a division suffers twelve percent casualties in one day of

combat, it is not to be inferred that each subordinate unit of the division suffers equally, or that one-half percent of the casualties occurs each hour of the twenty-four, or even that one percent occurs each hour of daylight. A company may be almost destroyed in an hour; a battalion may lose fifty percent in a day; and other units may have no battle casualties. This irregular distribution of casualties in time and space may place an insuperable burden on certain medical agencies at a time when others are relatively unoccupied. This fact should be given important consideration in all medical planning.

a. Areas of Casualty Density. Since units suffer unequally, it follows that casualties are rarely distributed evenly over a battlefield. They tend to be concentrated in "areas of casualty density." The probable locations of areas of casualty density can be deduced from an analysis of the tactical plans in connection with a study of the ground contours. They will be found where the heaviest concentration of fire can be brought to bear upon the densest distribution of troops. This situation ordinarily obtains in those areas of major tactical importance, for here the commander masses his combat means and here the enemy must oppose to the limit of his strength. Troops moving under fire usually suffer heavier losses than those remaining in position. In the offensive, the main attack is expected to advance more rapidly than the secondary efforts. Also, there is ordinarily a greater concentration of troops in the main attack. For these reasons, unless no formidable opposition will be encountered, the higher casualty rate can be anticipated in the region of the main effort. It is, therefore, essential that the surgeon be given adequate information of the enemy situation and the plan for the employment of combat units. This is necessary in order to enable him to properly allocate the medical service so that continuous preferential support will be available to troops in areas of highest probable casualty density. This information must be available to the surgeon in time to permit medical units to be moved to battle positions before the actions begin.

b. Natural Lines of Drift of Wounded. Seeking treatment for their injuries, wounded men who are able to walk will normally make their way to the rear unaided. Some follow the only route they know, which is the one over which their organization advanced, even though it is exposed to hostile fire. Others instinctively avoid enemy observation and fire, particularly machine gun fire, by following ravines, stream beds, and other defiladed byways. These routes are known as natural lines of drift of wounded, and must be considered in locating medical installations in combat areas.

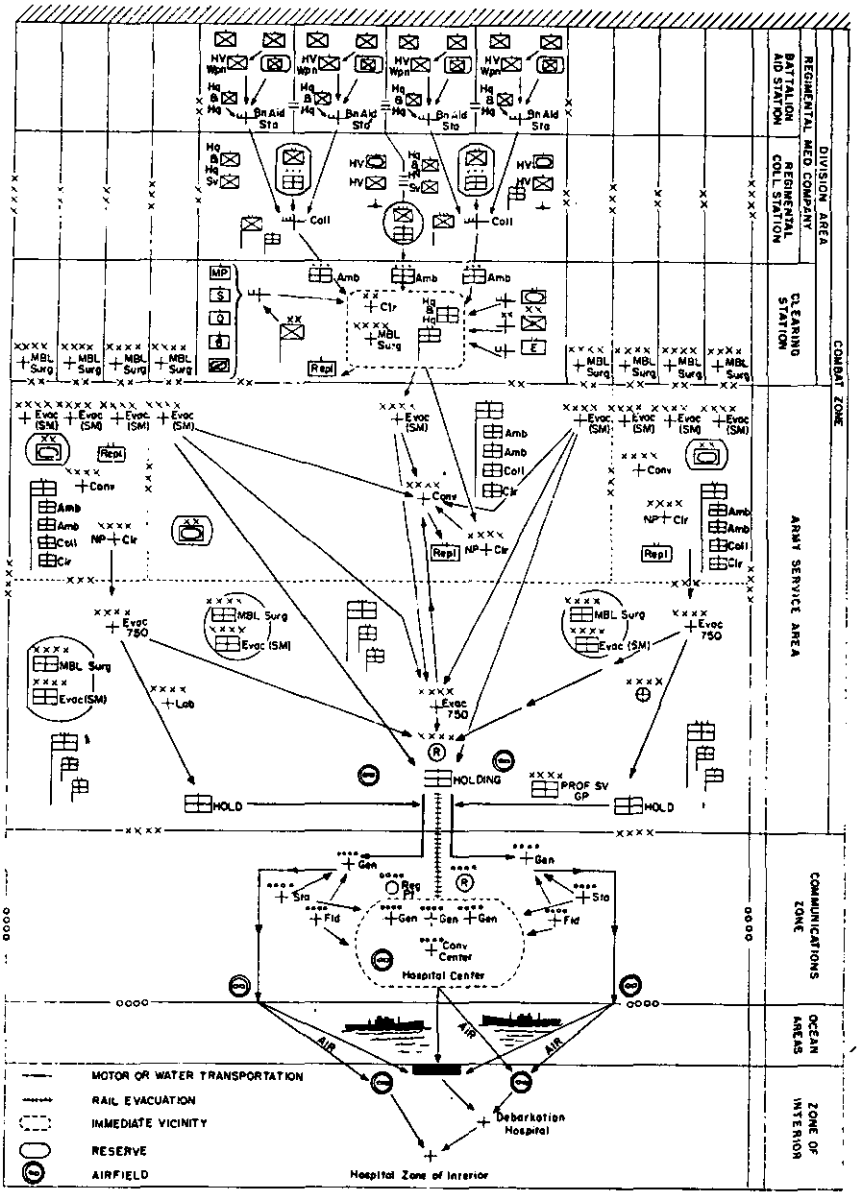


Figure 4. Evacuation flow chart.

43. EVACUATION LAG

It is practically impossible to provide for the wounded soldier an uninterrupted journey from the front to a fixed hospital in the rear. Delays are inevitable. Some are inherent in the system; others arise from circumstances within a particular military situation. The sum of such delays is known as "evacuation lag." This

is a factor of great importance in developing a medical plan. If not properly considered, it may immobilize medical installations in the combat zone as well as further retard the process of evacuation. The more important causes of evacuation lag are—

a. Delays Due to Enemy Action. Hostile fire may seriously interfere with or completely prevent all primary evacuation from the field or from aid or collecting stations for considerable periods of time. In position warfare, where combat troops are protected by strong defensive works in open country, it is frequently impossible to remove casualties from aid stations except under cover of darkness.

b. Delays Due to Combat Requirements. The movement of troops and supplies may halt the movement of wounded.

c. Difficulties in Transportation by Manpower. Litter bearers may have to carry casualties for long distances. This movement may be under heavy fire, requiring circuitous routes or frequent halts. This is a most laborious task, and fatigue soon reduces efficiency.

d. Treatment en Route. At each medical installation from front to rear casualties are examined and given such treatment as may be essential to the saving of life or limb, or better to prepare them for movement to the rear. Certain casualties are nontransportable for a time because of such things as surgical shock or hemorrhage.

e. Interdependence of Evacuation and Hospitalization. Each of these functions is dependent on the other for its efficient operation. They must always be considered jointly. The location of hospitals near good roads, rail, shipping facilities, airfields, and dock service is most desirable. Insofar as practicable, fixed hospitals will be located on principal axes of travel. The availability of sufficient fixed beds does not solve the problem of the medical service; there must be sufficient means whereby patients can be transported to these hospitals and effectively distributed among them.

44. EVACUATION POLICIES

The decision to retain for treatment within a command any class or group of casualties is the evacuation policy of that command. In subordinate commands this policy may be very fluid, varying from hour to hour and day to day, depending upon the effect of combat on the capacity of the particular headquarters to afford medical care. In higher commands, policy becomes more rigid. In no instance will the evacuation policy of a subordinate headquarters work to defeat theater policy which is established by the Department of Defense, or to abrogate the medical mission.

45. HOSPITALIZATION

Casualties require care and treatment from the time they are received by the medical service until their final disposition. Many measures applied as medical aid are simply the first steps to more detailed treatment, and it is impossible to fix a point where medical aid ends and curative treatment begins. Somewhat arbitrarily, however, the term "hospitalization" is restricted to care and treatment in those medical installations designed and equipped to give relatively complete medical and surgical treatment to the sick and wounded.

a. Hospitals are classed as "fixed," or "mobile." Fixed hospital facilities include general hospitals and station hospitals and, in some instances, field hospitals. Mobile, or semimobile, hospital facilities are operated by evacuation and mobile Army surgical hospital units. (For Convalescent Centers, see paragraph 290.)

b. As soon as the medical service receives a sick or injured person who requires hospitalization, it is confronted with two alternatives. It must either move the patient to a hospital or bring the hospital to the patient. Two factors govern the choice. First, and most important, is the military situation at the time, and, second, the condition of the patient.

c. Every casualty evacuated must be replaced. The evacuation of one man requires movement of two. The administration and operation of a replacement system is difficult at best. Further, a replacement is rarely as valuable, immediately, to an organization as the veteran whose place he took. If, for this reason, a casualty can be made ready within a reasonable time to rejoin his organization, it is most economical and essential to hospitalize and treat him as close to his unit as possible rather than move him to a more rearward medical installation.

d. Sick and wounded personnel must be properly prepared for evacuation and given constant care and treatment en route. To effect this a suitable medical installation must be located at each point in the journey from front to rear where the character of transport changes or where the responsibility for evacuation passes to another agency. In one instance, this may be a battalion aid station, in another, a clearing station. This unit may also be a "holding" hospital, of any of the several types, placed in the chain for this specific purpose.

e. The objective of all hospitalization is to return a maximum number of casualties to full duty within a minimum period. Such individuals, because of previous training and experience, are the most valuable of all replacements.

f. A certain proportion of casualties recover without being fit for duty. Their disposition will be in conformity with theater policies.

46. CONCEPT OF PATIENT

The highest standards of medical practice are demanded at all times and under all conditions. The idealism that characterizes the practice of medicine is challenged to demonstrate itself under conditions not encountered in civil practice. However, the peculiar relationship between the patient and physician in civil practice under static conditions is unsuited to and impractical under the dynamic conditions that exist in a theater of operations. Under dynamic conditions, medical means, always limited, must be so distributed as to render the greatest service to the greatest number. To devote a disproportionate amount of time and effort to one casualty at the expense of the treatment of the mass of other casualties is to subordinate the common welfare of all to one individual. It is important that emphasis be placed on the treatment of those conditions commonly encountered in military practice rather than on rare and unusual types of casualties. The orderly processes and policies of evacuation are not to be hindered because of scientific interest in certain patients. Any remote suggestion that military medical service is unfeeling and disinterested is abhorrent.

47. GENEVA CONVENTION

The Geneva Convention, an agreement between most civilized nations (first ratified by the United States in 1882), guarantees the humane treatment of war casualties and classifies members of the Army Medical Service (excluding Veterinary) as neutrals. (For details of the provisions of this agreement see FM 27–10, Rules of Land Warfare.)

PART TWO

MEDICAL SERVICE IN THE COMBAT ZONE

CHAPTER 4

MEDICAL SERVICE IN THE INFANTRY DIVISION

Section I. GENERAL

48. COMPONENTS
(figs. 5, 6, and 7)

The medical service with the infantry division consists of unit medical service with units the size of a battalion, or larger, of every arm and service (except medical) operating under the command of the unit to which assigned, and the division medical service provided by the division medical battalion (one per division) operating directly under division control. The basic organization of unit medical service with the infantry regiment, the regimental medical company; and that of the division medical service, the division medical battalion, are shown in figures 6 and 7.

49. REQUIREMENTS ESSENTIAL TO AN ADEQUATE DIVISION MEDICAL SERVICE

a. General. Rearward elements of the division must furnish close support to the more forward units. Although unit medical service of the infantry regiment and separate battalions of the arms and services furnishes continuous medical service to subordinate elements of the division, its scope and capacity is limited. Prompt evacuation of noneffectives under its jurisdiction is vital to efficient operation.

b. Mobility. Since the impetus of evacuation is from the rear, rearward collecting units must have sufficient mobility to be able to evacuate personnel casualties from the battalions. When in the interest of the sick and injured the mobility of a medical unit must be sacrificed due to the accumulation of seriously injured who are not adequately prepared for further evacuation, the mobility of the unit is maintained by leaving a small holding detachment with such patients and moving the main portion of the unit closer to the troops served. The mobility of the clearing station may be maintained by leapfrogging, or by echeloning the clearing platoons. The mobility of a medical unit is not to be measured solely by the

speed at which it can cover ground with its equipment and personnel when once loaded on transport. Rather, it is to be measured by the speed with which it can operate at one place, then suspend, load, move, and begin functioning in another place. The following factors must *all* be considered:

(1) Each trip in evacuation is a round trip, whether such a trip be made by a litter squad, an ambulance, or a hospital train. Consequently the transport of the evacuating agency must traverse at least twice the distance traversed by the combat troops it is supporting.

(2) The time required in establishing and closing its installation and in gaining contact with combat elements must be charged against mobility.

(3) During the time that a medical unit is unable promptly to dispose of the casualties in its care, it is completely immobilized. Consequently the mobility and efficiency of its supporting units is a most important factor in the operation of every medical unit.

c. Flexibility. It must always be remembered that any tactical operation may, without much advance warning, depart from the initial plan, either as the result of enemy counteraction or of a decision of the division commander to exploit newly discovered weaknesses or errors on the part of the enemy. The medical service must, therefore, be able to meet without delay such sudden changes in the tactical situation. As in the case of combat elements, maintaining an adequate reserve contributes to this flexibility. The use of standing operating procedures must not be permitted to encourage rigidity in medical service, either in planning or in execution.

d. Economy of Force. No more troops should be committed and no more installations should be established than are required for the task at hand or for the obvious needs of the immediate future. Once committed, it is virtually impossible to make a unit available for other employment. The establishment of an installation immobilizes that unit for a period, the length of which will depend upon the elaborateness of the installation and the number and type of casualties in it.

e. Decentralization of Control. Until the advent of combat elements of very great tactical mobility—notably mechanized units—the question of partially decentralizing the control of division medical service arose only when a part of the division, such as an infantry-artillery combat team, operated at a distance from the bulk of division medical installations. Under these conditions centrally controlled medical service became impracticable or impos-

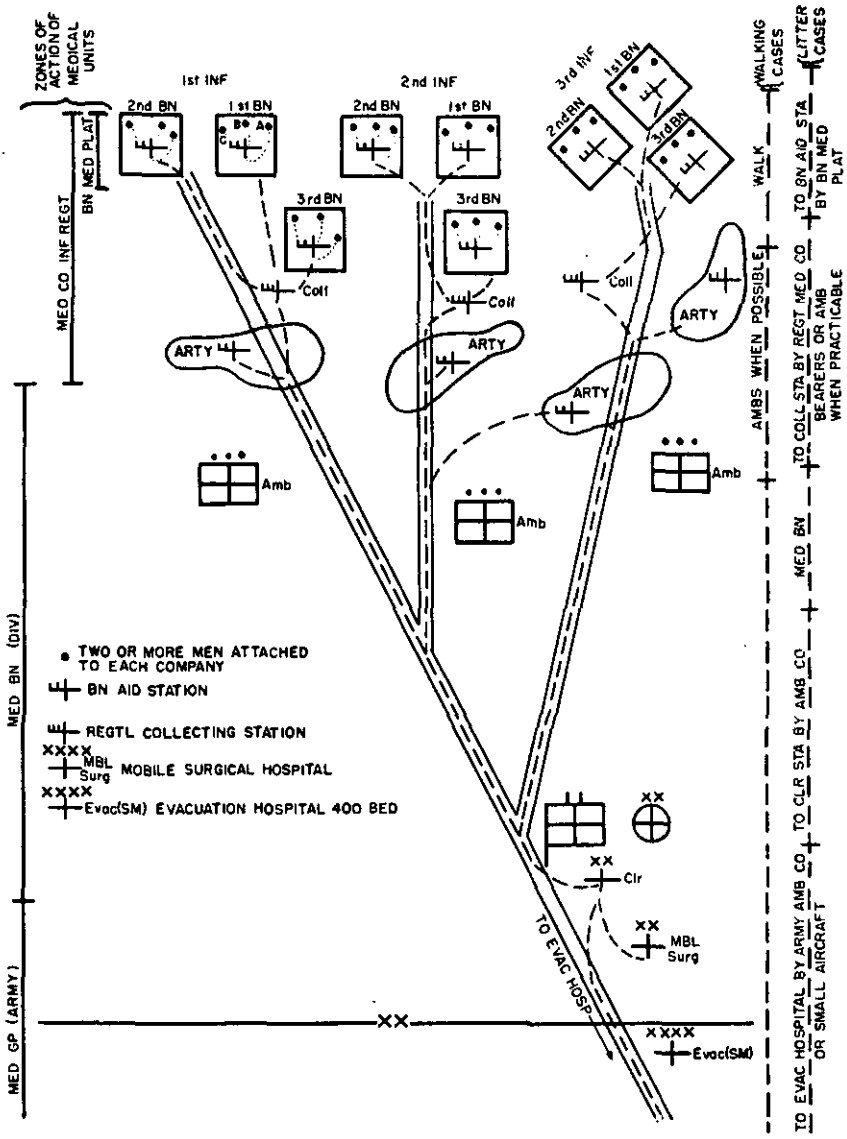


Figure 5. Diagram of medical service with the infantry division.

sible. In such situations it was customary to attach to the distant force a suitable element of the division medical service. This element, operating as a unit controlled by the commander of the distant force, provided such medical service as its organization permitted. However, in the rapidly moving attacks of mechanized forces, and particularly when these are staged at some distance from supporting foot troops which might be counted upon to assist in the collection and evacuation of the casualties of the

mechanized force, the problem is quite different. It will frequently be impossible for division medical service to establish and maintain the close contact with supported units necessary to the effective evacuation of the combat elements. In such instances, it will probably be necessary to reinforce unit medical detachments with personnel and ambulances of the division medical service, and at the same time pass down to subordinate unit commanders the responsibility for collecting their own casualties and evacuating them to some designated central axis where the division medical service can take over.

50. GENERAL PATTERN OF EVACUATION

Before considering the operation of the various components of the division medical service, it will be well to follow one wounded man from where he lies on the battlefield through the various levels of medical service.

a. Wounded on the battlefield, the soldier will first receive medical aid from a company aid man who has accompanied his unit into action. Next, he is picked up by litter bearers who carry him toward the rear to a casualty concentration point, known as the battalion aid station. Here he will receive such emergency care as is considered essential and either be returned to his unit or prepared for further rearward movement. This has been carried on by medical personnel of a battalion medical platoon attached to each infantry battalion from its parent unit, the regimental medical company.

b. Presuming that continued evacuation is necessary, the wounded soldier is next transported to the rear by ambulances or litter bearers from the collecting platoon, also of the regimental medical company, who have come forward to evacuate the battalion aid stations. Their destination is the regimental collecting station where the casualty is examined, given necessary medical care, and again prepared for further rearward movement by ambulances coming forward from the division medical battalion to evacuate these stations. These move him to the clearing station of the division medical battalion which constitutes the most rearward medical installation of the division. Here, he is further examined and, if necessary, prepared for further rearward evacuation by ambulances or light aircraft of the field army, or for transfer to a proximate surgical hospital of the field army.

51. EQUIPMENT

a. Individual Equipment. Certain officers and enlisted men of the Medical Service carry on their persons equipment for use in

rendering treatment and medical aid to sick and injured men or animals.

b. Organizational Equipment. The equipment of an organization can be broken down into two basic types, general equipment and special equipment. The general equipment is that used in the general functions common to all military organizations, and the special equipment is that provided for the special functions of the unit. The special equipment of medical units is largely medical equipment.

(1) *Headquarters elements.* Company headquarters of the regimental medical company, the ambulance company, and the clearing company have no medical equipment. Except for the division dental section, this also applies to the headquarters and headquarters company of the battalion. Their functions are concerned with administrative matters rather than with the care of casualties. In addition to handling all medical supplies for their parent units, they are equipped with motor transport and with special equipment required for motor maintenance.

(2) *Collecting platoons.* The special equipment of collecting platoons of a regimental medical company consists of a limited amount of tentage for the shelter of casualties; chests of instruments, medicines, dressings, blankets, and simple food for the emergency care and treatment of the sick, injured, and wounded; and ambulances and litters with which to transport those unable to walk. While this equipment is designed only for simple technical procedures, it is ample enough for the platoons during initial combat, and sufficient to furnish replacement of medical supplies to battalion aid stations until the division medical supply system can be placed in operation. Regimental medical companies have the necessary motor vehicles to transport their equipment.

(3) *Ambulance companies.* The ambulance company of the division medical battalion has a supply of litters, blankets, and splints solely for property exchange. It has no unit medical equipment. Special equipment consists largely of ambulances and motor maintenance equipment.

(4) *The clearing company of the division medical battalion.* The special equipment of the clearing company includes cots and chests of instruments, medicines, dressings, blankets, foods for the temporary care and emergency treatment of the sick and injured, and tentage for their

shelter. While the medical equipment of the clearing company is somewhat more elaborate than that of collecting units of the regimental medical companies, it is sufficiently simple to be readily transportable, but too limited to provide for involved technical procedures. Motor transport is provided for personnel and equipment.

52. INSTALLATIONS

When a medical unit establishes its temporary installation for combat and is ready to function, it is said to be *at station,* and specifically by the function it performs: for example, aid station, established by medical detachments or platoons; collecting station; ambulance station; and clearing station.

53. REINFORCEMENT

a. There would be an extravagant waste of manpower much of the time if service units were designed to carry peak loads. Medical units, like all service units, are designed to carry normal loads. The medical load varies widely with the situation; and when it becomes heavier than the rated capacity of the medical unit, the commander must request reinforcements to prevent the necessity of operating his unit at decreased efficiency.

b. The source of reinforcements for the medical service may be within or without the division. The division medical service may be reinforced with units from a higher command or from the army reserve. The medical requirements must be considered when augmentation of divisional strength by other elements, such as artillery, is planned. In certain situations, and particularly in emergencies, it may be necessary to reinforce the medical service from sources within the division. This was done frequently in the first and second World Wars. Some of these sources are prisoners of war, impressed civilians, and as a last resort, other troops of the division.

54. SUPPORT BY HIGHER COMMANDS

The field army is the normal source of support for division medical service. For all practical purposes, the administrative responsibilities of the corps are limited to those in connection with corps troops and those which may be delegated by higher authority (ch. 13).

55. EVACUATION

Except in *unusual* situations wherein the division is compelled to evacuate its own casualties beyond its rear boundary, the responsibility of the division for evacuation terminates when casualties reach the division clearing station. Further evacuation is a responsibility of a higher command. Division clearing stations normally are evacuated by ambulances of the army medical service. Arrangements with the army for evacuation are made by the division through command channels. This is a function of G–4 (the general staff section concerned with supply and evacuation). The schedule may be arranged for evacuation at fixed hours, or it may provide for evacuation on call by the division.

56. SURGICAL HOSPITALS

Surgical hospitals are mobile field army units, designed for the express purpose of supporting division medical services (ch. 13).

57. MEDICAL SUPPLY

The division surgeon, under the division commander, is responsible for the medical supply of the division which includes procurement of supplies from the field army and the storage and issue of these supplies to subordinate commands of the division. (For further details, see section III of this chapter.)

Section II. REGIMENTAL MEDICAL SERVICE

58. GENERAL

The medical company, infantry regiment, provides medical service for an infantry regiment within its zone of action, including emergency treatment, collection, sorting, evacuation of casualties during combat, and dispensary medical care at other times.

59. ORGANIZATION
(fig. 6)

The regimental medical company consists of a company headquarters, three battalion medical platoons, and a collecting platoon. Each battalion medical platoon is organized to provide medical service for one infantry battalion. The collecting platoon evacuates the battalion aid stations, establishes a regimental collecting station where casualties are cared for until they are disposed of by further evacuation or return to duty, and provides medical service to the regimental headquarters and other units in that area.

60. COMBAT FUNCTIONS

The regimental medical company provides medical aid and treatment on the battlefield and evacuates casualties from the battlefield to battalion aid stations. Here, they receive additional treatment, are sorted, and are evacuated to the regimental collecting station or returned to duty. The regimental collecting station receives, sorts, and furnishes medical treatment and temporary care for casualties until evacuated by elements of the division medical battalion or returned to duty.

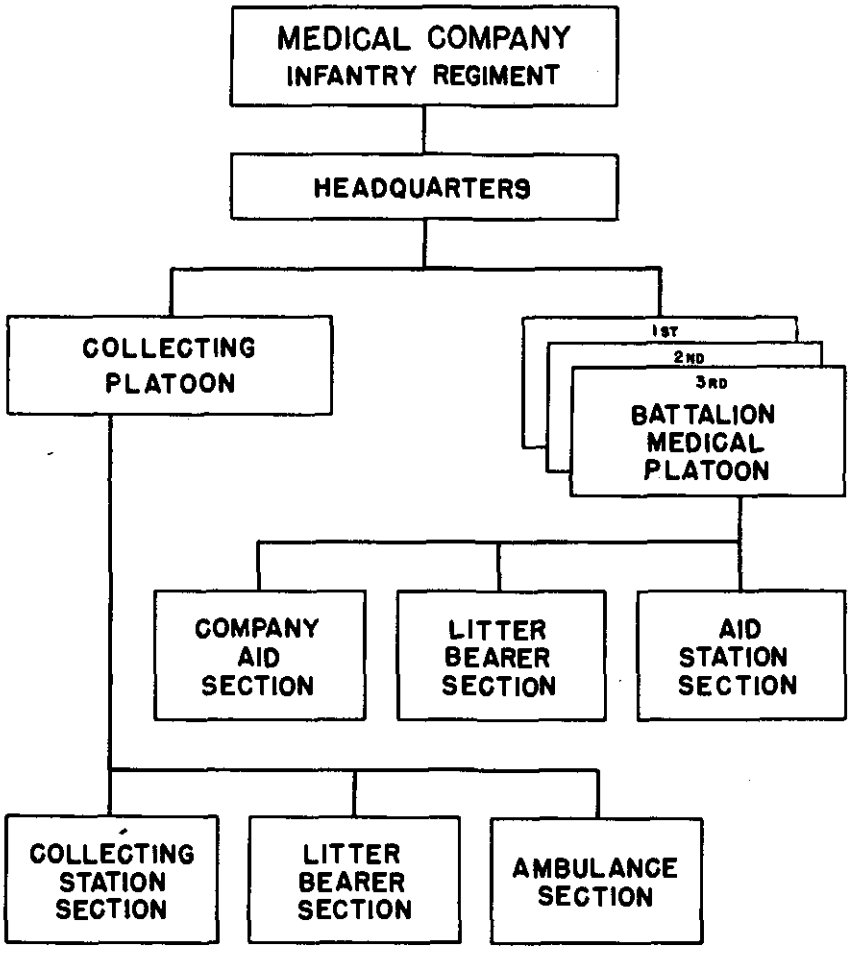


Figure 6. Organization of the regimental medical company.

61. NONCOMBAT FUNCTIONS

In situations other than combat, the regimental medical company operates one or more dispensaries for the temporary treat-

ment and care of sick and injured of the regiment requiring further rearward evacuation and for the treatment of those individuals who will not require further evacuation. In addition, the company is utilized for the *supervision* of sanitation, including insect and rodent control and communicable disease control within the regimental area. It supervises and assists in the instruction of all personnel of the regiment in matters of sanitation, first aid, and personal hygiene. It performs the various administrative and housekeeping functions incident to running the company.

62. COMPANY HEADQUARTERS

The company headquarters consists of the commissioned and enlisted personnel required to perform the command and administrative duties of the unit.

a. Company Commander. The duties of the company commander are dual in character. He is both the unit commander and the regimental surgeon on the staff of the regimental commander. The two terms are used interchangeably throughout this discussion.

(1) As commander of the regimental medical company, he has command responsibilities for the organization, administration, discipline, and training of the company; the preparation of the required reports and records of the company; the procurement, storage, and distribution of supplies of all types to the company; the care and maintenance of the equipment and supplies of the company including motor vehicles; and the messing of personnel.

(2) As a member of the staff of the regimental commander, the regimental surgeon acts in an advisory capacity. His duties are to—

(*a*) Keep the regimental commander informed as to the medical situation and capabilities of the medical service.

(*b*) Recommend measures for the prevention of loss of manpower due to disease, injury, and wounds.

(*c*) Make a medical estimate of the situation and submit a medical plan to the regimental commander, both estimate and plan to be based on the tactical plan.

(*d*) Maintain the medical records of the command.

(*e*) Supervise technical matters pertaining to the medical service within the regiment.

(*f*) Supervise training in medical subjects within the regiment.

(*g*) Supervise the care and treatment of sick and injured and their evacuation to the regimental collecting station.

b. Other Personnel.

(1) The company headquarters contains the additional personnel necessary to implement the duties and responsibilities of the commanding officer both as unit commander and regimental surgeon. Two administrative officers (Medical Service Corps) are provided as assistants. One of these officers assists the regimental surgeon in the administration and operation of the company, and the other supervises the mess, supply, and company transportation. The enlisted personnel supply the necessary first sergeant, clerks, cooks, mechanics, and truck drivers to carry on the administrative functions of the company; and a sergeant, who is designated as a liaison agent for the maintenance of contact with the battalion aid stations.

(2) The company headquarters operates a command post which is normally located at the regimental collecting station. The command post includes a message center operated under the supervision of the liaison sergeant. Messages brought to the regimental collecting station by ambulance or litter bearers or received by radio or telephone are submitted to the message center. (For message center operation, see FM 24–17.)

c. Communications and Contact.

(1) The company headquarters maintains contact forward with the battalion medical platoons and to the rear with the division medical battalion. Contact must be maintained between battalion aid stations and the regimental collecting station. It is the dual responsibility of platoon commanders and the company commander to insure that adequate contact and communications exist. Available means of communication include command radio networks, telephone, and written or oral messages carried by ambulance drivers, litter bearers, or casualties. The command radio networks should be used for communications whenever practicable. Usually telephone communications are provided between the regimental headquarters, the regimental collecting station, and the company command post. During combat, maximum difficulty with communications will generally be experienced in the early phase. The medical plan for the regiment will therefore

include either the location of the collecting station or a predesignated spot where representatives from the battalion medical platoons will contact a representative of the company headquarters (liaison agent). Contact men from the various battalion medical platoons will initiate the chain of evacuation by leading litter bearers or vehicles of the collecting platoon to the battalion aid stations, or, more commonly, litter-bearer teams will accompany the battalion medical platoons into combat and, on their return to collecting stations, will act as guides for the remaining litter-bearer teams and ambulances. Once established, communications are maintained by the method most practicable under the circumstances. (See paragraph 150a, FM 7–30, 1949.)

(2) The commanding officer of the division medical battalion has the major responsibility for maintaining contact with the regimental collecting station and for its evacuation. He will ordinarily place a contact agent and one or more ambulances with the station section of the collecting platoon for this purpose. The regimental surgeon, on the other hand, is responsible for keeping the medical battalion commander informed, so far as is practicable, as to the location of the regimental collecting station and his evacuation requirements.

63. BATTALION MEDICAL PLATOONS
(fig. 6)

The three battalion medical platoons in the regimental medical company are provided to give medical service to the three infantry battalions of the regiment. Whenever possible, the same battalion medical platoon will habitually support the same infantry battalion. The operation of these platoons is normally included in the medical plan or standing operating procedures of the regiment. Normally in combat the battalion medical platoon is attached to the infantry battalion it is supporting and is under the command of the infantry battalion commander, who becomes directly responsible for the medical service within his battalion and has the means for fulfilling his responsibility. The regimental surgeon retains technical supervision over the unit and such additional authority as may be granted him as a staff officer of the regimental commander. When the platoon is engaged in supporting an infantry battalion, the platoon commander occupies a position with duties and responsibilities similar to those of the regimental surgeon. He is both the battalion medical platoon commander and the battalion surgeon.

a. Mission. The mission of the battalion medical platoon is to provide medical service to its respective infantry battalion, including medical aid to the wounded; collection and concentration of the wounded in the battalion aid station; and the initiation of evacuation and treatment.

b. Battalion Aid Station Section. The *aid station personnel* includes two officers (the battalion surgeon and his assistant) and a number of noncommissioned officers and technicians. Duties of personnel at the aid station are not fixed but follow a fixed pattern. The battalion surgeon, being in command, must assume all responsibility for decisions and plans, but he may delegate such of his duties to his assistant as he sees fit, according to circumstances and to the abilities of the latter. Additional duties as the battalion surgeon are to make an estimate of the situation and prepare a medical plan for approval, based on the tactical plan for the infantry battalion; and keep the battalion commander and regimental medical commander informed of the situation. He also establishes and operates one or more battalion aid stations, as required, makes continuing reconnaissances for relocation of aid stations, and supervises sanitary and other measures for the prevention of disease and injury within the infantry battalion. The medical officer will perform the bulk of the professional duties but the medical assistant, an officer of the Medical Service Corps, may be assigned to handle slightly wounded cases, assisting the battalion surgeon in any manner the latter may direct. The battalion surgeon is also assisted by a noncommissioned officer and various surgical and medical technicians. Enlisted technicians receive casualties, sterilize instruments, administer hypodermic medication and blood plasma, take steps to combat shock, dress wounds, and set up and move equipment.

(1) *Location.* The battalion aid station is located at a site selected by the battalion surgeon and approved by the battalion commander. It will generally be established 300 to 800 yards behind the front lines, varying with the tactical situation and with ground contours. In the attack the station will be located as far forward as possible, while in a defensive situation it is placed farther to the rear. Certain tactical situations may require that the aid station split either laterally to cover an abnormally wide front, or organize stations in depth. In selecting the location for an aid station, the following conditions are considered:

(*a*) Tactical operation of the unit supported.

(*b*) Probable areas of casualty density.

(*c*) Protection afforded by defilade and concealment.

(*d*) Lines of drift of wounded.

(*e*) Length of litter haul.

(*f*) Protection from the elements.

(*g*) Avoidance of possible enemy targets, such as important road intersections, bridges, battery positions, etc.

(*h*) Ease of future displacement of the station to the rear or front.

(*i*) Under circumstances, security of the station.

(2) *Operation.* Only so much of a battalion aid station is established as the immediate circumstances require. Ordinarily, in combat, there will be little subdivision of a battalion aid station but it may be divided roughly into a section for receiving casualties, a section for the care of the seriously wounded, a section for the care of slightly wounded, and a forwarding section. If gas casualties occur, they should be treated at some distance from other casualties.

(3) *Technical procedures.* The battalion aid station is not the place to initiate elaborate procedures. The basic function of a battalion aid station is to sort out those casualties requiring further evacuation and to prepare them for evacuation. There must be a constant effort to prevent avoidable loss of manpower through medical evacuation and to maintain the fighting strength of the battalion. Minor injuries, wounds, and illnesses are given required treatment and, if possible, the casualties are returned to the front. Treatment is primarily restricted to the arresting of hemorrhage, immobilization of fractures, application of adequate dressings, administration of morphine and blood plasma, and prevention or treatment of shock. Under no circumstances should the battalion aid station be allowed to bog down with casualties and thus impair its mobility.

(4) *Movement.* The battalion aid station moves as directed by the battalion surgeon with the approval of the battalion commander. The station may move directly to a new location, or, if it is occupied with casualties, advance part of the personnel and equipment to the new site. The remaining part continues to function until such time as the advanced element is ready to receive casualties. The rear portion then moves to the new location as soon as it has disposed of its remaining casualties.

(5) *Records.* The battalion aid station maintains a simple roster of the casualties it treats. This is kept for the information of the battalion commander and for planning purposes. The emergency medical tag is completed at the station and signed by an officer, preferably the medical officer.

(6) *Hot beverages.* These are provided for casualties at the station. The quartermaster beverage pack for aid stations is available for this purpose and a two-burner gasoline stove is provided to prepare it.

c. Company Aid Men. Company aid men are attached to companies of the battalion on the basis of one per platoon. It is extremely important that whenever possible company aid men remain with their companies since the intimate contact of combat personnel with their supporting medical personnel is a major factor in maintaining morale of the fighting troops. Duties of company aid men are to—

(1) Administer medical aid either on or off the battlefield.

(2) Place casualties in properly marked but protected location to await arrival of litter bearers or vehicles.

(3) Direct walking wounded to battalion aid stations or to ambulance loading posts.

(4) Keep the battalion surgeon informed of the medical situation by means of messages carried back by litter squads, walking wounded, or vehicles.

(5) So far as practicable, attach an emergency medical tag to all wounded or sick casualties and, when time and the tactical situation permit, to the dead. The company aid men should fill out the heading of the tag and indicate any important treatment (such as morphine or tourniquet) with complete data as to time and dosage. The tag should be completed and signed by the first officer of the medical service who attends the casualty.

(6) Supervise sanitation within the company area and assist in the prevention of losses due to disease and injury.

d. Litter Bearers. The number of men in a litter squad will vary with the task and terrain but generally will be four, one of whom is a medical aid man. Functions of the litter bearers are to—

(1) Maintain contact with combat elements.

(2) Clear the field of casualties, removing those who are unable to walk to the battalion aid station or to collecting points.

(3) Direct casualties who can walk to the battalion aid station, to collecting points, or to ambulance loading points.

(4) Administer medical aid.

(5) Assist the aid station group in moving and establishing the aid station.

(6) Act as messengers.

(7) Tag such wounded, sick, injured, or dead, as have not already been tagged with an emergency medical tag, filling out the heading and indicating important medication. In addition, the litter bearer should note on the EMT any additional aid (morphine, tourniquet, etc.) he has given the casualty, noting time and dosage.

64. COLLECTING PLATOON

The collecting platoon consists of a collecting station section, an ambulance section, and a litter-bearer section.

a. Mission. The mission of the collecting platoon is to evacuate casualties from the aid station operated by the battalion medical platoon with each infantry battalion; to establish and operate a regimental collecting station for casualties requiring treatment while en route to the rear or incident to return to duty; and to provide medical service to regimental headquarters, headquarters and headquarters company, service company, tank company, and heavy mortar company. The collecting platoon reinforces the battalion medical platoons with litter bearers and ambulances, as may be directed by the company commander.

b. Station Section. The station section establishes and operates the regimental collecting station. Sick, wounded, and injured casualties are evacuated from battalion aid stations and held at the collecting station until they are evacuated to the rear in ambulances of the division medical battalion or are returned to duty. Casualties from combat units other than infantry may be evacuated to the station when tactical disposition or conditions of combat dictate. The regimental collecting station functions as a buffer against excessive and unnecessary loss of manpower to the regiment. Whenever possible, casualties are given all necessary treatment and held until they can be returned to duty. The number and types of casualties which may be held at the station will vary with the tactical situation.

(1) *The personnel* of the section includes two medical officers, noncommsisioned officers, and medical aid men. All the personnel of the section are used to operate the regimental collecting station with the exception of certain surgical technicians, who are included as company aid men for the headquarters and headquarters company, service company, heavy mortar company, and tank company.

(2) *The location* of the regimental collecting station is central in respect to the battalion aid stations of the regiment. It is ordinarily from 1,200 to 3,500 yards behind the front line. The site selected must be accessible to vehicles in order to permit evacuation to the clearing station. It should be in a position which is concealed and which has sufficient defilade to protect it from small-arms and light-artillery fire. Proximity to lines of drift and nearby water supply are other desirable features to be considered.

(3) Normally the regimental collecting station has a simple pattern, but under the pressure of many casualties it may be necessary to establish a more elaborate organization. At such times, the station may be subdivided into a receiving section, where casualties brought from the front are recorded and nonexpendable medical property exchanged; a slightly wounded section; a seriously wounded section; and a forwarding section, where casualties are loaded into ambulances of the medical battalion and an exchange of property is again effected. Slightly wounded, sick, or injured casualties fit to return to duty are directed back to their units.

(4) Casualties with minor wounds, illnesses, and injuries are given all necessary treatment at the station. Those who must be evacuated to the rear are given only such treatment as may be necessary to save life and to prepare them for further evacuation. Splints are adjusted, dressings checked, hemorrhage controlled, and blood plasma given to combat shock. Hot drinks and food are provided by the company mess. After a casualty has been treated, an entry of his treatment and disposition is made on the back of his emergency medical tag.

(5) If the tactical situation permits, neuropsychiatric casualties or soldiers exhausted by combat may be held at the regimental collecting station. They should be separated from the sick, injured, and wounded, and provided medication, hot food, and an adequate place to rest. After a period of rest (usually 12 to 24 hours) those who have not been returned to duty should be evacuated by ambulance for further observation and treatment (ch. 20).

(6) The regimental collecting station maintains a simple roster of casualties evacuated or returned to duty. This report is necessary to enable the regimental surgeon to give the regimental commander an accurate estimate of

his losses and to provide him with information for the formulation of reports required by higher authority.

(7) The regimental collecting station is evacuated by ambulances from the ambulance company of the division medical battalion.

(8) When a gas casualty section is required, it should be located downwind from the rest of the station and some distance away.

(9) As directed by the regimental surgeon, the regimental collecting station must move its location according to the demands of the tactical situation. To maintain a continuous medical service the station is usually moved piece-meal, the composition of each fraction varying with the situation.

(10) In bivouac or garrison a collecting station ordinarily will not be required in the chain of evacuation and the regimental collecting station will confine its medical service to the headquarters and headquarters company, service company, tank company, and the heavy mortar company. It may operate a dispensary for this purpose.

c. Ambulance Section. The ambulance section is commanded by an officer of the Medical Service Corps assisted by his noncommissioned officers. The remainder of the section is composed of drivers and their assistants. For the performance of their mission, it is equipped with vehicles, usually ¼-ton, 4x4 trucks (jeep ambulance). In addition it has other types of vehicles which may be utilized for transportation of sick and wounded (see current T/O &E 8–7).

(1) This section has the mission of evacuating casualties from as far forward as is practicable in a given situation. In the ideal situation the service may be extended forward of the battalion aid station into the rifle company area; in other situations, it may be practicable only to use the vehicles to shorten the litter carry from the battalion aid station to the collecting station. Whenever practicable, walking wounded, as well as litter casualties, will be evacuated by this means.

(2) Normally the section will operate a pool of vehicles from the vicinity of the regimental collecting station; but if the situation permits, one or more vehicles will be stationed at each battalion aid station as directed in the medical plan for the regiment. Ordinarily the hauls will be short distances and relay posts will not be indicated.

(3) The ambulance driver and his assistant are responsible for the medical care of the casualties en route. Splints and dressings will be maintained intact; excessive pain will be relieved; and emergency measures to save life will be carried out.

d. Litter-Bearer Section. The litter-bearer section is commanded by an officer of the Medical Service Corps assisted by noncommissioned officers. The remainder of the section is composed of litter bearers. One member of each litter squad is trained as a medical aid man. Primarily, this section of litter bearers has the duty of evacuating casualties from the battalion aid stations to the regimental collecting station. In this task, maximum possible assistance is obtained from the ambulance section. If ambulances are able to take over this evacuation entirely, the members of the section are employed to reinforce other elements of the regimental medical company, as directed by the regimental surgeon. When the battalion medical platoons are moving rapidly, it may be necessary for this section to clear the field of wounded in the areas abandoned by the battalion medical sections.

(1) To shorten the distance of carry, litter relay posts should be established. Litter squads are stationed at each post to carry the casualty toward the collecting station, returning to their original relay post as soon as their lap is completed.

(2) The litter squad is responsible for the care of casualties en route. It may be necessary to adjust splints and dressings or to administer morphine or plasma. The surgical technician with each squad supervises this care.

65. TRAINING

The training program for the regimental medical company is based on training directives issued by the regimental headquarters. The company commander prepares his training program and schedules in accordance with these instructions to reflect all phases of training, progressing toward the goal of fulfilling the unit's mission within the infantry regiment. He prepares a master schedule for the training of the unit from which weekly training schedules are prepared. The regimental medical company must be trained to play its position in the regimental combat team as a unit. During the squad, platoon, and company phases of training in the infantry regiment, the regimental medical company trains as directed by the company commander, but during battalion and regimental phases of training, the appropriate components of the regimental medical company train with their respective combat unit. Unit

training must include the provision of medical service in special situations such as amphibious operations, river crossings, attacks of cities, withdrawals, pursuits, and the like. Operation under black-out conditions must be included.

a. Basic Training. All members of the company will be trained in basic subjects required for any soldier under the provisions of Department of the Army directives.

b. Technical Training. All members of the company must have basic technical training plus the additional technical training required to fulfill the requirements of their military occupational specialty. Specialized training must be given to provide for all types of enlisted specialists included in the Tables of Organization. Under certain circumstances this type of training may be provided by established schools for enlisted specialists, but if no other means are provided, it must be included in the unit master training program.

(1) *Company aid men* must be given every possible opportunity to provide elementary medical service for their unit. This is required, not only for the technical training it provides, but also to give members of the platoon or company confidence in the ability of the company aid men who serve them. Such technical training must include disease prevention, care of the feet, and emergency neuropsychiatric treatment.

(2) *Combined technical training* by each of the functional groups is required as a final phase of technical training. Concentrated training in the operation of a battalion aid station and the regimental collecting station is needed to integrate the various specialists into a functional unit. Each man must efficiently perform his part on the team. Combined technical training is required by each section. Litter bearers must be trained to operate as part of teams and these teams as part of the chain of evacuation. The ambulance drivers and assistants must be trained to provide a continuous evacuation service.

(3) *During noncombat periods,* the regimental medical company will receive a part of its technical training by furnishing dispensary service to the regiment. The number of dispensaries and the composition of the personnel to operate them will be part of the medical plan for the regiment. The personnel in the dispensaries should be rotated periodically to provide on-the-job training for all men in the company.

c. Tactical Training. Unit tactical training is required by all elements of the regimental medical company. Unit training should progress, from training by the various functional groups and sections, to complete operation of the evacuation chain in all its aspects within the regimental area. It includes training in the following operations:

(1) Dispositions and operations of the company personnel in the various situations in which the regiment may be engaged, such as in bivouac, on the march, and in combat.

(2) Establishment of aid stations and collecting stations, and the removal of casualties from the field and their transportation through the evacuation chain.

(3) Supply in combat.

(4) Entrucking and detrucking, and moving equipment by pack.

d. Cadre Training. The plans for training the regimental medical company must also include the training of cadre personnel (unit personnel to form the nucleus for a new similar unit) and the training of replacements within the unit. More than one man must be trained for each position within the Tables of Organization.

66. EQUIPMENT

a. Individual. All members of the regimental medical company are provided with individual equipment. This includes a kit containing instruments, drugs, and dressings for the emergency care of casualties.

b. Organizational. Organizational equipment is as provided in current Tables of Organization and Equipment. Each section is provided with the necessary equipment to accomplish its mission. Augmentation in equipment will be required to enable the company to operate over difficult terrain or in climatic extremes.

67. TRANSPORTATION AND MAINTENANCE

With the exception of vehicles utilized as ambulances, only the number of vehicles required for moving the equipment of the unit and for administrative purposes is provided. The company has sufficient equipment and mechanics to perform the organizational maintenance of its vehicles. Repairs which are beyond the scope of organizational maintenance are referred to the regimental service company.

68. SUPPLY

The regimental medical company necessarily has two types of supply functions, general supply for the company and medical supply for the entire regiment.

a. General Supply. Normally in noncombat situations the company commander forwards requisitions of the company for clothing, equipment, and supplies of all types as authorized by Tables of Equipment and Allowances. These requisitions are sent to the regimental S–4 (supply officer) where they are consolidated with other units of the regiment and then forwarded through administrative channels for filling. On receipt of clothing, equipment, and supplies, entries are made in appropriate company records and the property is issued to the platoons of the company on memorandum receipt.

b. Medical Supply. Under conditions other than combat, medical supplies are obtained in the same manner and through the same channels as are other supplies. The regimental S–4 may call on the regimental surgeon to assist him in editing the consolidated regimental requisition.

(1) *In combat, medical supplies* are obtained informally and in the most expeditious manner possible. Ordinarily informal requisitions are submitted through the chain of evacuation. Battalion aid stations will use litter bearers and ambulances to carry informal requisitions to the regimental collecting station, and will be supplied by these agencies on their return trips. The regimental collecting station will maintain a small dump of supplies for this purpose. The regimental collecting station obtains its supplies by informal requisitions on the supply installation of the division medical battalion (normally the division medical supply dump) designated by the division surgeon in the division medical plan. These informal requisitions will ordinarily be transmitted by the ambulances which evacuate the regimental collecting station. The same ambulances will deliver the supplies on their return trip. All stations of the regimental medical company must avoid accumulating large quantities of surplus supplies which will hamper their mobility.

(2) *Medical property* such as litters, blankets, and splints, accompanying casualties to the rear, must be replaced by automatic exchange of like property at the next rearward medical station. This exchange is necessary to keep the property of the forward units at required levels.

(3) *Supplies* other than medical are procured as provided for in all other elements of the regiment. Requisitions are generally informal. (See FM 7–30.)

69. ADMINISTRATION

The administrative functions of the regimental medical company include those involving the company and those of the regimental surgeon's office. The personnel of the company, particularly those provided in company headquarters, must accomplish both functions.

a. Regimental Surgeon's Office. Administrative functions of this office include all correspondence and medical records, reports, and returns for which the surgeon is responsible. Such records will include—

(1) *Casualty rosters* prepared by each battalion aid station or the regimental collecting station for all sick and wounded treated, showing their disposition. These are used by the surgeon as a source of information for the preparation of casualty reports.

(2) *The sanitary report.* This is submitted periodically to the regimental commander.

(3) *Report sheet of sick and wounded* (WD AGO Form 8–23). This is submitted to higher headquarters together with the original emergency medical tags (WD AGO Form 8–26) for patients finally disposed of. The emergency medical tag is transferred with the casualty when moved along the chain of evacuation. The emergency medical tag is accomplished by the first officer of the medical service to treat the patient, or in the case of the dead, by the first individual of the medical service.

(4) *The statistical health report* (WD AGO Form 8–122) is usually submitted weekly.

(5) *Special reports* of disease incidence and control as directed by higher headquarters.

b. Company Administrative Functions. These include functions relative to—

(1) Discipline, promotion, records, reports, pay, and the like.

(2) General supply for the company.

(3) Maintenance of equipment and transportation.

(4) Messing.

70. SALVAGE

a. Ordnance. Ammunition and auxiliary individual weapons such as hand grenades and rifle grenades will be collected from casualties at the battalion aid station, rendered safe, and disposed

of as directed by the battalion S–4. Casualties will ordinarily retain individual weapons until they arrive at the regimental collecting station where weapons will be collected from all casualties who are to be evacuated farther to the rear. The regimental service company will collect the weapons from the station and dispose of them.

b. Other Equipment. Casualties evacuated to the rear will retain such individual equipment as is prescribed by the division commander or other authority (usually mess equipment and helmet), and a minimum of personal effects. All excess equipment will be collected at the regimental collecting station and held until collected by the regimental service company.

71. MESS

The company headquarters of the regimental medical company contains the personnel to provide a company mess. In bivouac or garrison, the mess is operated as any other company mess. In combat, however, the mess will ordinarily be located in the vicinity of the regimental collecting station. In addition to providing food for the members of the company who are on duty at the station or operate therefrom, such as the litter-bearer section and the ambulance section, the mess provides hot food for the casualties who pass through the regimental collecting station. While attached to the infantry battalion, the battalion medical platoon will ordinarily mess with units of the battalion as directed by the battalion commander.

72. DENTAL SERVICE

Normally any casualty requiring dental service will be evacuated through normal medical channels to the clearing station of the division. Should dental service be necessary to a large number of personnel at one time, or if time is limited because of combat conditions, the regimental surgeon must request the division for dental assistance.

73. VETERINARY SERVICE

Should the regiment require veterinary service, veterinary elements must be attached from the field army.

74. REINFORCEMENT FOR SPECIAL OPERATIONS

Coordination by the regimental and division surgeons with the corps and army surgeons will, in many cases, allow the attachment of various supporting army medical service elements for a specialized or unusual operation.

Section III. DIVISION MEDICAL SERVICE

75. GENERAL

Division medical service consists of the division surgeon and his staff and the division medical battalion.

76. DIVISION SURGEON

The senior officer of the Medical Corps assigned to a division is usually the division surgeon. As division surgeon, he is a special staff officer of the division commander, and all his duties and responsibilities are staff functions. The duties and responsibilities of the division surgeon are to—

a. Keep the division commander and general staff group constantly informed as to the conditions and capabilities of the medical service, and assist the division commander in the exercise of such of his command functions as pertain to the medical service.

b. Keep the surgeon of the next higher command informed of the medical situation within the division.

c. Elaborate the medical details necessary to carry the division commander's decisions into effect.

d. Initiate measures for the prevention or reduction of disability and death in the command. Such of these measures as involve command responsibility are initiated in recommendations to the division commander, but such as pertain only to technical procedures in the care and treatment of sick and injured may be initiated by direct instructions to the medical officers concerned. The scope of this responsibility includes—

(1) *Prevention and control* of communicable and other diseases.

(2) *Improvement of physical condition* by any practicable measures.

(3) *Prevention of nonbattle injuries.* The records and experience of the medical service are most important guides to the reduction of this source of disability.

(4) *Reduction of battle injuries* and of the mortality resulting therefrom. This responsibility does not encroach upon the well-defined responsibility of the chemical warfare officer for gas, radiological, and biological defense. Rather, it supplements it; and the surgeon must cooperate with him in reducing morbidity from toxic gases. In addition, the reduction of mortality in gassed casualties is an exclusive responsibility of the surgeon. With regard

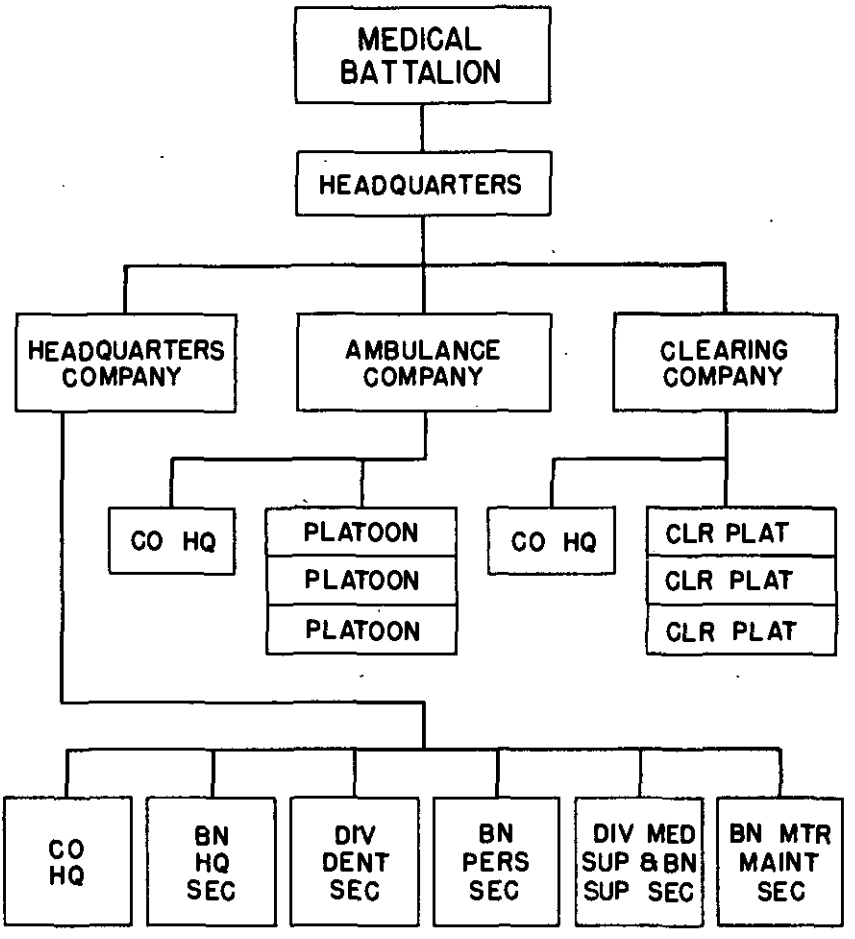


Figure 7. Organization chart of a medical battalion.

to other casualty-producing agents, both morbidity and mortality from missiles, as well as radiological and biological agents, may be influenced favorably by the initiation of preventive measures.

e. Initiate measures for the prevention of disease among, and the medical care and treatment of, prisoners of war and inhabitants of occupied territory.

f. Advise the division commander upon the training of all medical personnel in the division; prepare programs, for his action, in regard to all aspects of medical training within the division.

g. Procure, store temporarily, and distribute all medical supplies required by the division; study the medical supply requirements and make suitable recommendations to the division commander concerning policies governing medical supply.

h. Prepare and forward consolidated reports and returns of the sick and injured; furnish this information to other staff officers of the division who are concerned therewith.

i. Make necessary technical inspections, for the division commander, to insure that his instructions pertaining to the medical service including the medical aspects of training are being carried out.

77. DIVISION SURGEON'S OFFICE

The division surgeon's office consists of the commissioned and enlisted personnel provided to assist the senior medical officer of the division in his staff functions. It is not to be confused with the command post of the division medical battalion. The personnel of the division surgeon's office are not a part of the division medical battalion although, when circumstances permit, they may be attached thereto for quarters, rations, and general administration.

a. Personnel. The division surgeon is provided with administrative and technical assistants. Both the number and the special qualifications of such assistants may be changed from time to time as the situation indicates (see current Tables of Organization). The complement of such assistants usually provided is listed below, and, while each is provided for a certain technical specialty, all are available for any duties that the division surgeon may require of them.

(1) *Assistant to division surgeon.* This officer is a general administrative assistant. The division surgeon may employ him either as an executive assistant or in liaison with other sections of the division headquarters.

(2) *Medical inspector.* A specialist in field sanitation and epidemiology is provided to supervise, under the division surgeon, all functions of preventive medicine.

(3) *Veterinarian.* In those divisions in which animal service or transport may become an integral part, the senior officer of the Veterinary Corps attached or assigned to the division is the division veterinarian. He is charged with direct supervision, under the division surgeon, of those functions that pertain to the veterinary service.

(4) *Division neuropsychiatrist.* The division neuropsychiatrist is assigned to the staff of the division surgeon. He has a dual function. As a staff officer, he assists the surgeon in advising command on matters of policy and procedure which affect the mental health and morale of

troops. As a professional consultant, he supervises and assists in the treatment and disposition of neuropsychiatric disorders occurring within the division.

(5) *Enlisted personnel.* Noncommissioned officers and privates are provided for technical and clerical assistance and as messengers and orderlies.

b. Location. The division surgeon's office is a part of, and located with, the rear echelon of division headquarters. This is not to say that the division surgeon's station is invariably in his office. His staff functions require his presence elsewhere during a large part of the time; and especially during combat, he will be unable to discharge his responsibilities if he remains so far to the rear. Rather, this office is the administrative agency of the division surgeon, to be operated by one of his assistants at such times as the duties of the division surgeon require him to be absent from the office.

78. THE DIVISION MEDICAL BATTALION

The division medical battalion, operating in rear of the regimental medical companies of the component regiments of the divisions, completes the medical service for the division. It has as its primary mission—

a. The treatment, sorting, and care of casualties, evacuated by it from the collecting stations and dispensaries of regiments and other division troops to the clearing station, until such time as they are returned to duty or become the responsibility of a higher command.

b. The furnishing, in noncombat situations, of necessary dispensary and ambulance service to units of the division.

c. The assuming, temporarily, in special situations, of the evacuation of casualties to medical units farther to the rear.

d. The maintenance of the medical supply of the division.

e. The provision of dental service for the division (ch. 21).

79. ORGANIZATION

(fig. 7)

The medical battalion is organized into a headquarters and headquarters company, an ambulance company, and a clearing company. This organization is dictated in order to meet the four primary functions of the division medical service: evacuation, operation of the clearing station, dental service for the division, and medical supply for the division.

80. COMMAND

The battalion commander, an officer of the Medical Corps, unlike his counterpart in the regimental medical company, is not a member of the special staff. His functions are those of command. He is responsible to the division commander for—

a. The administration, discipline, and training of his battalion.

b. The development of plans for its employment.

c. Preparation of required reports.

d. Evacuation of all casualties from collecting stations of the infantry regiments to the division clearing stations.

e. The establishment of clearing stations and the reception of casualties brought to them.

f. Proper sorting of casualties and the rapid return of slightly injured to duty.

g. Furnishing necessary shelter to casualties until such time as their physical condition permits further evacuation.

h. The operation of a dispensary or dispensaries for the treatment of personnel when the division is not engaged in battle.

i. Insuring adequate supply of all elements of his battalion and supplying medical supply items to all units of the infantry division.

81. AMBULANCE EVACUATION AND CLEARING

These subjects are treated in detail in paragraphs 83–114.

82. DIVISION MEDICAL SUPPLY

As pointed out in paragraph 76, the division surgeon is responsible, under the division commander, for the medical supply of the division. For the execution of his responsibilities he has on his staff a division medical supply officer who is in direct charge of medical supply of the division. This officer serves in two distinct capacities. He is the battalion supply officer of the medical battalion and the medical supply officer of the division.

a. As the battalion supply officer, he serves on the staff of the medical battalion commander and is responsible for the procurement, storage, and issue of all types of supply for the medical battalion.

b. As the medical supply officer of the division, he serves on the staff of the division surgeon and is responsible to him for the procurement, storage, and issue of all medical supplies for the division under existing standing operating procedures and prescribed policies. In this manner he relieves the division surgeon of the details incident to the supply function. For the discharge of his responsibilities he is provided with a division medical supply and battalion supply section in the headquarters company of the

division medical battalion (figure 7). This group performs all functions associated with the procurement, storage, and issue of medical supplies for the division, as well as the general supply for the division medical battalion.

c. The division medical supply officer is responsible for no medical property other than the rolling reserve or that stock in his division medical supply point, when established. Upon receipt of supplies from a depot or nearest medical supply point, he ships them to unit supply officers and drops them from his accountability. On the other hand, unit supply officers are responsible for all property issued to their respective units. It is this difference in property accounting that makes necessary the separation of unit supply from division medical supply within the headquarters company of division medical units.

d. The division normally procures medical supplies from a field army medical depot. They may be shipped to a field army distributing point, a railhead or truckhead, where they are picked up by trucks of the division medical battalion. Or, trucks of the division medical battalion may be sent to the field army depot for them. The division medical supply officer prepares, for the division surgeon, requisitions upon the proper depot.

e. The division medical battalion does not operate a medical depot. The medical supply section does, however, carry in vehicles, a small rolling reserve of medical supplies against emergencies and to minimize the normal lag between requirement and distribution.

f. The method of distribution of medical supplies in combat is most informal. Every consideration is subordinated to the objective of keeping the division and its medical units supplied. The division medical dump is established adjacent to the clearing station as soon as it is located. It is stocked initially with the rolling reserve. Auxiliary dumps may be established in the vicinities of collecting stations, or the stocks of regimental collecting companies may be augmented to enable them to supply forward units. Requests for supplies are sent to the rear by litter squads and ambulances; supplies are dispatched forward by trucks, ambulances, and litter squads.

g. In noncombat situations requisitions by subordinate elements of the division are submitted by each unit supply officer for the medical supplies required by his unit. This includes the unit supply officer of the division medical battalion, who, in one capacity, submits a requisition that he himself, in another capacity, will eventually fill. This is a paper transaction between the two supply groups of his company. The approval of requisitions is a command

function. The division surgeon reviews all requisitions for medical supplies and makes appropriate recommendations to the division commander. The latter may delegate his authority to the division surgeon to act upon such requisitions under such policies as may be established.

h. Medical supplies may be delivered to divisional unit trains at the railhead or at the division medical dump, or they may be delivered to unit distributing points by vehicles of the division medical battalion.

Section IV. AMBULANCE EVACUATION

83. GENERAL

The ambulance company of the division medical battalion furnishes ambulance service within the area of division responsibility. This company resolves itself into three ambulance platoons, one each for the evacuation of zones assigned to the infantry regiments.

a. In combat their primary missions are the transportation of casualties from collecting stations (and, occasionally, certain aid stations) to the clearing station(s) and emergency care and treatment of sick and injured en route.

b. Their secondary missions are the transmission of messages from one medical unit to another along the assigned routes of evacuation, the transportation of medical supplies from the division medical dump to units forward, and the transportation of medical personnel.

c. Orders to ambulance units may specify the exact route, or routes, to be used, or they may list certain available routes and leave the final selection to the discretion of the ambulance unit commander. In either event, the ambulance commander must be informed of all traffic restrictions that may affect his operations.

84. RECONNAISSANCE

Whenever practicable, ambulance unit commanders should investigate all routes available or likely to become available within their zones of operation. Such reconnaissance is not alone for the purpose of selecting or familiarizing themselves with initial routes, but also for securing information of alternate routes in the event that changes in situation may indicate, or require, the abandonment of the initial route.

85. AMBULANCE PLAN

The ambulance plan prepared by the ambulance company commander will include—

a. The initial ambulance routes and possible alternate routes.

b. The locations of the ambulance stations, relay posts, control points, and ambulance loading posts.

c. The distribution of ambulances to the various infantry regimental zones and to the various ambulance posts.

d. Provisions for supply and maintenance of transport.

e. Provisions for relief and messing of personnel.

86. AMBULANCE ROUTES

The following considerations govern the selection of ambulance routes:

a. Availability of routes.

b. Physical characteristics such as the surface, width, and grades of roads, and the passability of cross-country routes.

c. Traffic density on available routes or portions thereof.

d. Relative length, compared with other possible routes.

e. Proximity of routes to terrain features or installations that may draw enemy fire, or intersections likely to be interdicted.

f. General protection from enemy observation and fire.

g. Cover or concealment of movement, and for parked ambulances.

87. CONTROL

In combat, the ambulance company establishes an ambulance station wherein are located the company command post and the housekeeping and motor maintenance facilities of the company. Whenever possible, the basic relay post(s) is (are) located at the ambulance station. The ambulance station must be on, or immediately adjacent to, the route used by the ambulances of the company. It should be beyond the range of hostile small-arms fire, and be protected from flat-trajectory artillery fire. Concealment is most desirable, with cover and hard standings for the transport. Sites near other installations, likely to invite hostile fire or air attack, should be avoided. A location between one and two miles to the rear of the collecting stations is desirable. The site should be large enough to accommodate the command post, message center, motor park(s), kitchen, and bivouac.

a. Ambulance Platoons and Sections. Ambulance platoons and sections have no integral housekeeping or motor maintenance facilities, and hence establish no ambulance station. The platoon or section command post is established at the point where ambulances best may be controlled—ordinarily at the basic relay post.

b. Message Center. A message center is established at the side of the route used by ambulances so that they may be examined without causing them to leave the route. It is operated by the message center clerk, and receives, dispatches, and records all messages to and from the supported and supporting units of the medical service. In addition it acts as a clearing house for all messages and supplies carried by the ambulances of the company for other units. The destination of such messages and supplies is checked at the message center, and, if the ambulance upon which they arrive is not proceeding directly to such destination, they are placed upon an ambulance for such destination. This is the rule in the case of messages and supplies en route from rear to front, since ambulances returning from the clearing station normally stop at the basic relay post. A log is maintained and serves two purposes. It is a current record of the distribution of the ambulances of the unit; and it is a check on the number of casualties evacuated to the clearing station. The following data are entered in the log in each case:

(1) Serial number of the ambulance.
(2) Name of the driver.
(3) Hour of arrival or departure of the ambulance.
(4) If the ambulance is carrying casualties, the number *each* of litter and sitting casualties.

88. AMBULANCE SHUTTLE
(fig. 8)

An ambulance shuttle is a method of operating ambulance service in combat. It consists of one or more ambulance loading posts, one or more ambulance relay posts, and such ambulance control points as may be required. Its purposes are to keep an *empty ambulance at each* loading post at all times, to prevent congestion of ambulances at any one place, and to facilitate the control of ambulance traffic. *The dispersion of* ambulances in a shuttle reduces losses from any single missile, and prevents traffic tie-ups in places where maneuver room is restricted.

a. An ambulance loading post is a point in the shuttle, normally the point farthest forward and usually in the area of the regimental collecting station, where one or more ambulances are stationed, ready to receive casualties for transportation. Ambulance loading posts are established by ambulance units, but the loading of casualties is done by personnel of the regimental collecting station.

b. An ambulance relay post is a point in the shuttle where one or more empty ambulances are stationed ready to advance to replace an ambulance which has left the next post toward the front,

whether it be another relay post or a loading post. Relay posts are numbered from front to rear.

c. The basic relay post is that relay post farthest to the rear where the bulk of the unemployed ambulances, or such as remain after all other relay posts have been provided for, are stationed. So far as facilities for ambulances are concerned, the requirements of a site for the basic relay post are the same as for an ambulance station. Ambulance companies may locate their basic relay posts at the ambulance station. Ambulance platoons and sections select similar sites for their basic relay posts but do not operate an ambulance station.

d. An ambulance control point is a point at a cross road or road junction where an ambulance route divides into two or more routes

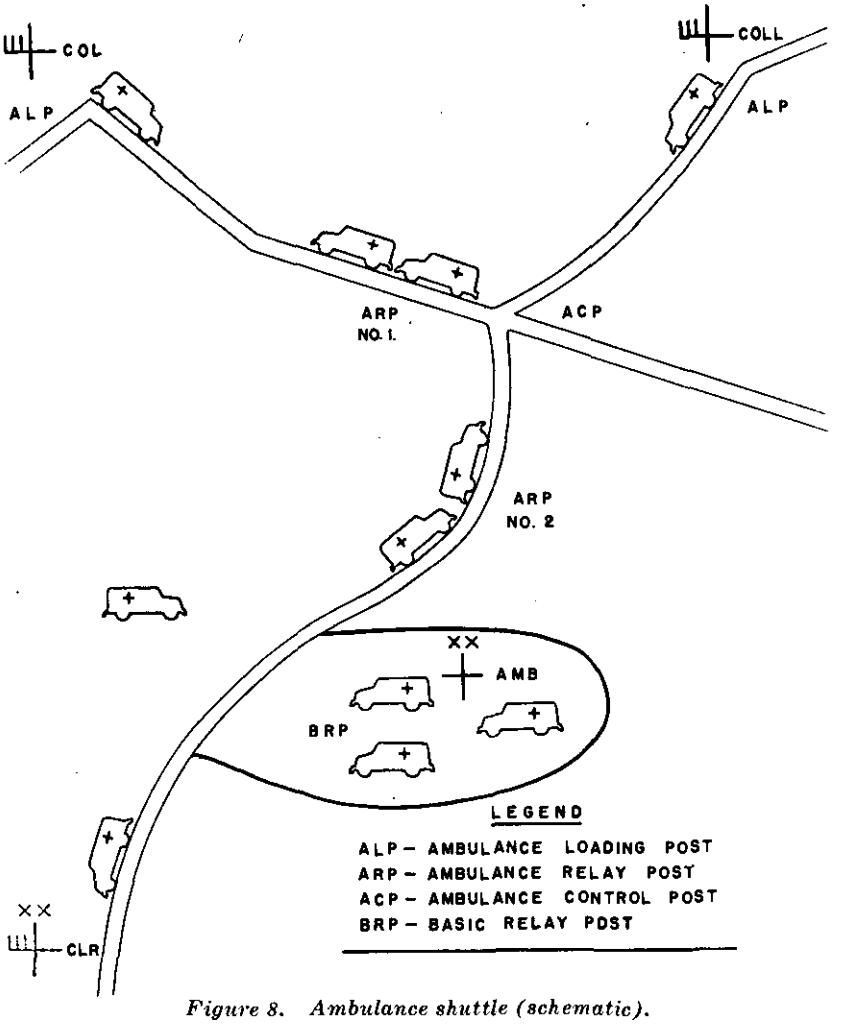


Figure 8. Ambulance shuttle (schematic).

to different loading posts. It is operated by a noncommissioned officer or private of the ambulance unit. This soldier, knowing which route each loaded ambulance has followed, directs its replacement moving forward to that route. This maintains the proper number of ambulances in each spur of the shuttle.

89. ESTABLISHING AMBULANCE SHUTTLE

The establishment of an ambulance shuttle may begin at either end. When the ambulance unit moves along the ambulance route to the site of the collecting station, the responsible officer makes a reconnaissance on the journey forward, selects the locations of relay posts, and drops from the convoy on its return journey the proper number of empty ambulances at each post selected. If the convoy does not travel the entire ambulance route prior to the establishment of the ambulance station, the responsible officer reconnoiters the remainder, returns, and leads forward the proper number of ambulances to establish each relay and loading post selected.

a. Location of Relay Post. The following features are desirable in the location of a relay post:

(1) Hard standing which does not interfere with the passage of ambulances en route.
(2) Cover or concealment of ambulances at the post from ground and aerial observation.
(3) Unobstructed view of the ambulance route, clearly visible to ambulances en route.
(4) Protection from direct fire.
(5) Ample distance from terrain features or other installations that may invite hostile fire or air action.

b. Distances Between Relay Posts. The number of relay posts and the distances between them will vary with the situation. The primary purpose of the shuttle being to keep an empty ambulance at each loading post at all times, the first relay post should be near enough to the loading post to permit a loaded ambulance to be replaced without delay. Distances between succeeding relay posts will depend upon suitable locations, the total length of the shuttle, the rate at which ambulances are loaded, and the number of ambulances that it is desirable to keep forward of the basic relay post. In general, relay posts should rarely be located nearer each other than 500 yards, nor farther apart than 1,500 yards.

c. Number of Ambulances at Each Relay Post. The minimum number of ambulances allocated to a relay post is one; the maximum depends upon the situation. There are disadvantages in allocating a single ambulance to a relay post. The post either must

be plainly marked or a soldier in charge must be stationed there, since drivers may pass it through error. It does not permit the transfer of messages or supplies to ambulances advancing forward, and one missile may destroy the entire post. These disadvantages are largely obviated by allocating two ambulances to each relay post. More than two are rarely indicated, except at the basic relay post. Whenever more than one ambulance is stationed at a relay post, including the basic relay post, they must be dispersed sufficiently to prevent more than one ambulance being put out of action by a single missile.

90. OPERATION OF SHUTTLE

An ambulance is loaded at a loading post and starts to the rear. As it passes the first relay post, the forward ambulance in that post moves at once to the loading post; the second ambulance in the first relay post moves to replace the first in the forward position in the post. This shift continues until all ambulances in the post have moved forward one position. As the loaded ambulance on its way to the rear passes the second relay post, the forward ambulance in that post moves forward and occupies the rear position in the first relay post; and the other ambulances in the second relay post shift their positions one place forward as described above. This same operation is repeated as the loaded ambulance passes each relay post, including the basic relay post, on its journey to the rear. When the loaded ambulance has discharged its casualties, usually at the clearing station, it returns to the basic relay post and takes station.

a. Control. A noncommissioned officer or other qualified soldier should be placed in direct charge of the basic relay post since the number of ambulances stationed there and the necessity for dispersion may make control of this post difficult. If personnel can be spared, there are advantages in placing a soldier in charge of each relay post; the transfer of messages and supplies is thereby facilitated, and control is generally improved. However, if more than one ambulance be located to each relay post, an additional soldier in charge is not absolutely essential. Well-trained drivers are able to operate without other supervision.

b. Forwarding Messages and Supplies. Messages and supplies on the way to the front are expedited by this procedure. The message center removes such messages and supplies from ambulances reporting to the basic relay post and places them on the first ambulance proceeding toward the front. As the latter ambulance reaches the next relay post, such messages and supplies are transferred to the ambulance occupying the forward position in the post, and are similarly transferred to the leading ambulance in each

relay post. The soldier in charge of an ambulance control point examines all messages and determines the destination of all supplies passing his post en route to the front. If necessary, he retains them in his possession until an ambulance passes his post destined for the proper loading post. Ambulances are not diverted from their proper routes to make such deliveries. Urgent messages and supplies are not forwarded through the shuttle.

91. RESPONSIBILITIES OF THE AMBULANCE UNIT COMMANDER

a. An ambulance unit commander is responsible for all phases of the activities of his unit. The more important of these responsibilities are—

(1) Establishment, supervision, control, and termination of the ambulance service furnished by his unit.
(2) Provision of shelter, facilities for messing, and opportunities for resting to the personnel of his unit.
(3) Maintenance of the transport of his unit, including its protection from enemy action.
(4) Supervision of the operations of his unit as an agency of communications and of delivery of supplies.
(5) Emergency treatment of casualties committed to the care of his unit.
(6) Transmission of timely information to his immediate superior concerning the situation within his unit.

b. Proper performance of his many duties will require the unit commander to be absent from his command post much of the time. Before so absenting himself, he must notify the message center of his probable whereabouts.

92. ALLOTMENT OF TASKS

Whenever the general mission of the company comprises two or more component tasks, or whenever only a portion of the company is required for a task, tasks should be allotted to prescribed subordinate elements of the company, such as platoons or sections, rather than to detachments improvised of ambulances from two or more elements.

93. PLANS AND ORDERS

The dependency of ambulances upon routes and the possibility of denial, at any time, of their use require an ambulance unit commander to have, at all times, at least one alternate plan that can be placed in operation without delay. He must have a working knowledge of all available routes in his zone of action and plans for their adaptation to his requirements. His plans must include provision for the movement, in either direction, of the termini of

his ambulance routes. The orders of an ambulance unit commander usually are issued orally or in the form of written messages to his subordinates.

94. CONTACT

Since, normally, the ambulance element is the connecting link between the functions of collecting and clearing, close contact between the two units charged with those functions is necessary. Personnel for such duty is very limited in the smaller ambulance elements and some may have to be borrowed from other elements of the ambulance company. Whenever possible, contact should be maintained as follows:

a. With the Regimental Collecting Station. A junior officer or a noncommissioned officer of the ambulance element is stationed at the regimental collecting station. He must supervise the operation of the forward end of the ambulance shuttle. It must be remembered, however, that the loading of ambulances, including the determination of numbers to be carried in each load, is a responsibility of the regimental collecting station. He keeps the ambulance element commander informed of the situation at the collecting station. He supervises property exchange and transmits to the proper agency in the regimental collecting station messages and supplies brought forward by ambulances.

b. With Clearing Unit. A noncommissioned officer of the ambulance unit is stationed at the clearing station. He exercises general supervision of ambulances during their stay at the clearing station. (The unloading of ambulances at this point is a responsibility of the clearing unit.) He supervises property exchange and delivers to returning ambulances such messages and supplies as there are to carry to the front, and he informs the ambulance element commander of any changes in the clearing plan.

95. EMERGENCY TREATMENT OF CASUALTIES EN ROUTE

All drivers and assistant drivers are trained in medical aid. It is their duty to render such medical aid to casualties en route as may be required. In addition, when a loaded ambulance is checked at the message center, a medical officer, when practicable, or a noncommissioned officer will inspect the casualties to ascertain any need for emergency treatment. Such technical measures are necessarily of limited scope, but an ambulance unit is responsible for rendering such emergency treatment as is possible with the means at hand.

96. PROTECTION OF AMBULANCES AND CASUALTIES

Ambulances are no more sacred than other military equipment; nor are the lives of casualties more precious than those of effectives. When necessary to the accomplishment of the mission, both must be exposed to danger. However, all practicable measures must be pursued at all times to minimize the danger of destruction of ambulances and the further injury of casualties. The more important of these measures are—

a. Concealment. Movements may be made at night without lights when daytime movement is impracticable. It must be kept in mind that dispositions of the medical service of the division in many cases are a clue to the tactical disposition of the division, and security measures must be carried out to prevent this knowledge from divulging tactical intentions to the enemy.

b. Defilade. Full use should be made, at rest and in movement, of any protection offered by the terrain.

c. Dispersion. In convoy and at rest, when exposed to the danger of hostile fire or air action, the distances between ambulances should be increased to the point where serious damage is possible to no more than one vehicle from any one missile.

d. Mobility. Speed, up to the practical limit of safety, should be employed in crossing exposed stretches. However, speed, beyond the limit of safety, may prove more dangerous than the enemy.

97. DIRECTING SIGNS

Whenever practicable, directing signs, suitably marked with the unit designation, should be posted at all points along an ambulance route where drivers may become confused. Experience has shown that, regardless of the training of drivers, they frequently lose their way in a strange country, especially where routes are not well marked. Other suitable signs marking the ambulance station, message center, motor park, relay post, control points, and loading posts should be used.

98. ROAD AND BRIDGE REPAIR

While maintenance of ambulance routes is not a primary responsibility of an ambulance unit, in emergencies, ambulance personnel must make temporary repairs to roads and bridges to prevent interruption of the service. Ambulance units are equipped with simple tools for this purpose.

Section V. CLEARING

99. GENERAL

Clearing is the process of disposing of the casualties of a division or comparable unit. It is the function of the clearing element of the division medical battalion. It consists of sorting all casualties, returning to duty such as are immediately fit for full duty, and transferring all others, except the dead, to a medical unit of a higher command. The clearing station is an installation established by a clearing element for the purpose of discharging the function of clearing.

100. FUNCTIONS OF THE CLEARING ELEMENT

A clearing element supplements the service rendered by other medical establishments in the more forward areas of the division. These elements are equipped to perform more extensive surgical treatment than the more forward elements of the medical service in the division, and to provide the treatment of shock. Casualties require preparation for extended evacuation which precludes the location of the clearing station too near the front.

a. Combat functions. A clearing element is primarily a combat supportive organization. Its principal function is to establish and operate in combat one or more clearing stations at which casualties normally evacuated from the collecting station(s) of the regimental medical company(ies) are received, sorted, given temporary care and emergency treatment, and, when indicated, prepared for further evacuation and transfer to a more rearward medical unit in ambulances of the field army medical service.

b. Noncombat situations. A clearing element may be organized and equipped to undertake limited care and treatment of such sick and injured of the division as will be fit for full duty within a short time. The discharge of this function, however, requires a suitable organization and augmentation of equipment.

101. ORGANIZATION

The clearing company is organized into a company headquarters and three clearing platoons.

a. Company headquarters comprises such commissioned and enlisted personnel as are required for the command and administration of the unit.

b. The clearing platoons comprise the personnel who perform the professional care and treatment of casualties.

102. CLEARING COMPANY COMMANDER

The senior officer of the Medical Corps present for duty with the clearing company commands it. His duties and responsibilities are for the administration, discipline, morale, and training of the company.

a. The duties and responsibilities of the company commander are restricted largely to the establishment and operation of the clearing station and to keeping higher authority informed of the situation at the clearing station.

b. While the arrangement for evacuation of a clearing station is a responsibility of the division commander, the clearing company commander should keep the agency charged with the evacuation of his station fully informed of the situation with regard to numbers and classes of transportables awaiting evacuation, and of any anticipated changes in the situation. Cooperation in this respect will facilitate the movement of casualties.

103. RELATIONS WITH OTHER UNITS

The only direct contacts of a clearing unit are those normally with division ambulance units to the front, and with ambulance units of higher commands to the rear. In each case the responsibility for maintaining contact rests with the ambulance units, whose dispositions and movements must conform to those of the clearing station.

104. ESTABLISHMENT

To prevent immobilization of the division medical service, there must be a clearing station established and ready to receive casualties as soon as any collecting unit is ready to have casualties evacuated. In the usual situation, this will be within one-half to one hour after collection has been initiated.

105. SELECTION OF SITES

The number of clearing stations to be established, and their general locations, are elements of the division medical plan. Unless prescribed in detail in the division medical battalion order, the selection of the exact site is a responsibility of the clearing company commander.

a. A location is essential on, or readily accessible to, routes of evacuation, both from collecting stations and to the supporting medical service of the field army.

b. There must be space enough for a complete clearing station. A complete station is one of sufficient capacity, either organic or

through reinforcement, to clear all casualties that may pass through it. In the selection of a site, the possibility of expanding the initial station must always be considered.

c. Water must be available. If a practicable means of transporting water is available, the source of the water need not be at the immediate location of the station.

d. Desirable features of a clearing station site are:

(1) Location beyond the effective range of hostile light artillery.
(2) Protection from medium and heavy artillery (rarely completely attainable).
(3) Central location with reference to the lateral boundaries of the units which the station is supporting.
(4) Ample hard standings for ambulances and for the unit transport.
(5) A road loop to facilitate ambulance turn-round.
(6) Good drainage.
(7) Local fuel supply.
(8) Suitable buildings to substitute for or supplement tentage.
(9) If possible, location near an open area to serve as a landing strip is highly desirable.

e. Features which are undesirable in the location of a clearing station are—

(1) Areas that favor the persistence of chemical agents. In general, these are low places and heavily wooded areas. This feature must be carefully weighed against the advantages of concealment and protection from artillery fire.
(2) Proximity to targets or installations that may invite hostile fire or air action.

f. The average location of a clearing station may be said to be one, between 4 and 7 miles back of the division front line which combines as many desirable and as few undesirable features as possible and in addition contains those features in *a*, *b*, and *c*.

106. PROTECTION

While all medical installations are protected by the Geneva Convention, modern warfare has introduced problems not foreseen when that agreement was reached. In the first place, the location of a clearing station is an index to the tactical dispositions of the division, and, for this reason, the division commander will, in many situations, desire that its location be concealed. Since to be protected by the Geneva Convention it must be plainly marked,

there can be no compromise between the two considerations. This will be a command decision of the division commander or higher authority. Aerial bombing is not always sufficiently accurate to insure immunity to a medical installation when there are legitimate targets in the vicinity; and it rarely will be possible to locate a clearing station at sufficient distances from all such targets to avoid this danger.

107. DIRECTING SIGNS

Directing signs should be posted at critical points on the ambulance routes.

108. OPERATIONS

The ideal operation is that in which casualties are admitted largely from collecting stations of the infantry regiment and the aid stations of the artillery and other separate battalions, are given such emergency treatment as is necessary, prepared for further evacuation, and promptly turned over to the medical service of the field army which is in support. This ideal rarely is attainable.

a. The flow of casualties is not constant. They tend to arrive intermittently in groups, straining the facilities of the station to provide prompt attention to each. This requires careful sorting in the receiving department, so that priority may be given the more serious cases.

b. A proportion of admissions will be nontransportables. A nontransportable is a casualty that cannot be evacuated without real danger to life or limb. Such cases must be transferred at once to the mobile army surgical hospital in immediate support of the clearing station. But, if such service is not available, they must be cared for indefinitely in the clearing station.

c. Evacuation of the clearing station is intermittent. For reasons of economy and in the interest of control, field army ambulances ordinarily arrive in convoys. Casualties must be cared for until disposed of.

109. MEDICAL RECORDS

a. Each casualty should arrive at the clearing station with an emergency medical tag (EMT) attached to him. If not, one is made out in the receiving department and attached to him. Concise records of all treatment given in the clearing station are entered thereon. The EMT remains with each casualty when he is evacuated. They are taken from the dead and those returned to duty, and are disposed of as prescribed in current directives.

b. Casualty reports are made and forwarded through the division surgeon to the division G–1 (personnel) at prescribed times. Such reports consist of lists of all admissions by name, with the serial number, rank, organization, cause of admission, and disposition of each casualty set opposite his name.

110. DISPOSITION OF CASUALTIES

With the exception of the dead, all casualties admitted to the clearing station are disposed of either by further evacuation to field army medical installations or by return to duty.

a. Casualties transferred to mobile army surgical hospitals or to other field army medical installations farther to the rear have their medical records closed. These records accompany each casualty and consist of the EMT properly made out with entries complete to date. Their equipment is retained by the supply section of the medical battalion for disposition under current directives. The loading of the transport for such casualties and, in case more than one type of transport be used, the type of transport for each casualty is controlled by the evacuation officer.

b. Casualties not under arrest may be returned to their organizations. The choice of methods depends upon the situation. Each division under present organization has a replacement company which provides replacements to units of the division. This unit may be used for the return of personnel from the clearing station to the subordinate elements of the division. In this manner the returning personnel are furnished with individual equipment, which was removed in the clearing station. In addition they may be permitted to return individually, either afoot or on transport, to their organizations. In this latter manner, the individual equipment of all casualties returning to duty must be restored to the individual by the clearing station prior to his departure.

c. A record of the disposition of all casualties, whether by death, evacuation, or return to duty, is maintained in the evacuation department. This record is submitted at intervals to the platoon headquarters.

d. All deaths in the station are reported to the evacuation department. This department closes the records of such cases and sends them to the platoon headquarters.

111. PRISONERS OF WAR

Prisoner-of-war casualties are disposed of the same as any other casualties. If they require further treatment, they are evacuated. Whether or not a guard is furnished is decided by higher authority. When guards are necessary they must be furnished by the division

from other sources since there are insufficient personnel in the clearing company to perform this mission. When in the clearing station, prisoners of war who are fit for some duty should be employed. Their retention for duty is a command decision of higher authority.

112. EVACUATION OF CLEARING STATION

Evacuation of a clearing station is the responsibility of the medical service of the field army. The division surgeon submits to the division G–4 his recommendations concerning the arrangements to be made for evacuating the division clearing station(s), and the latter makes the arrangements for evacuation with the higher command. In practice it is customary to permit the division surgeon to arrange the details directly with the surgeon responsible for this evacuation. Evacuation may be arranged by a schedule of prescribed hours when ambulance convoys will arrive at the clearing station(s), or on call. In the latter method, the division surgeon notifies the responsible surgeon on each occasion that evacuation is required, informing him of the numbers and types of casualties. There is a time lag between the request for evacuation and the arrival of the convoy, which will vary with the situation but which must always be considered in planning.

113. SURGICAL HOSPITALS

Mobile army surgical hospitals are mobile units of the *field army medical service* designed primarily to provide adequate facilities near the front for major operative procedures necessary to save life or limb, and which cannot be postponed until the casualty reaches an evacuation hospital; and to relieve clearing stations immediately of nontransportables in order to prevent the immobilization of such stations through the accumulation of casualties that cannot be immediately evacuated. (For further details see chapter 13.)

114. RETENTION OF CASUALTIES

There are situations in which it is impossible to evacuate a clearing station, such as with the encircling force in pursuit and when the communications of a force are interrupted. If there is no mobile army surgical hospital available, the clearing station must retain such casualties for care and treatment until the situation becomes more favorable. If movement of the station becomes necessary during this period, there is the choice only between moving the casualties and leaving them behind, properly sheltered and provided with a care-taking detachment of medical personnel.

In camps and in rest areas behind the lines, an evacuation policy may be established providing for the retention of short-duration cases for definitive treatment in the clearing station.

Section VI. MEDICAL DETACHMENTS

115. GENERAL

The organization of the infantry division includes various units which are not of the size of the infantry regiment. Included in these are the division artillery, engineer combat battalion, tank battalion; and ordnance, signal, reconnaissance, replacement, quartermaster, and headquarters companies. Details of organization provide for each separate battalion or larger unit of every arm and service in the division, except medical and infantry, a detachment of medical troops. The medical detachments of these units occupy the same relative position in the unit as do battalion medical platoons of the regimental companies in the infantry battalion. These medical detachments are basic to adequate field medical service. They provide the primary medical care and treatment without which the value of the more elaborate arrangements in the rear would be considerably lessened. The division surgeon does not command these unit medical detachments, but he does exercise technical supervision over their operations and training. The unit commander alone has authority over, and is responsible for, the general and tactical efficiency of his medical detachment.

116. ORGANIZATION OF THE MEDICAL DETACHMENT

A unit medical detachment may be organized into a headquarters and a number of battalion or other detachments corresponding to the number of subordinate elements in the unit. The medical detachment of the separate battalion is organized into a headquarters and a battalion detachment. The headquarters includes such personnel as are assigned exclusively to the overhead for command and administration. In most detachments the headquarters will be limited to the unit medical commander, since all other personnel normally on duty in the headquarters must, in combat, be made available for other duties.

117. BATTALION DETACHMENTS

The battalion medical detachment provides medical service for the battalion. Its internal organization depends upon the characteristics of the battalion it serves. Ordinarily, it includes an aid station group and a company aid group, one aid man for each

company. When litter squads are required in such detachments, they must be constituted by the utilization of company aid men, by withdrawal of some of the aid station personnel, or by detailing nonmedical personnel of the battalion for this duty. The latter method is a command decision.

118. MEDICAL SERVICE OF UNITS SMALLER THAN A BATTALION

The medical service of companies which are not parts of battalions such as the quartermaster, reconnaissance, ordnance, signal, military police, replacement, and headquarters companies is furnished by the medical detachment division headquarters. Except in the signal and reconnaissance companies, company aid men are not normally furnished to these companies since their function is primarily a service function with only minor combat missions. The aid station will normally be located in that area where the bulk of the supported elements are employed.

119. ORGANIZATION OF THE DIVISION ARTILLERY

Division artillery is organized into a division artillery headquarters and headquarters battery, and such field artillery battalions and antiaircraft artillery battalions as are organic to the division. These artillery battalions are separate battalions, but in the division are placed under the control of the division artillery headquarters for fire control and tactical operations. Thus the battalion is the basic tactical unit. (For further details of artillery operations, see FM 6–20 and FM 100–5.)

120. CHARACTERISTICS OF ARTILLERY

Certain characteristics of the artillery in its operation tend to modify its medical support.

a. Artillery normally fires from tactical positions known as firing positions. When an artillery unit displaces in conformity with the tactical situation, part or all of its firing is interrupted during the movement depending on whether it displaces in part or as a whole. Artillery is most vulnerable during movement, and may be required to fire from hastily occupied positions along the route of movement.

b. When in position, artillery is not normally exposed to small-arms fire.

c. The majority of artillery positions are farther to the rear than collecting stations.

d. The casualty rate is less than that of infantry and casualties tend to occur at irregular intervals.

121. ORGANIZATION AND EMPLOYMENT OF THE MEDICAL DETACHMENT OF THE DIVISION ARTILLERY

The medical detachment, division artillery, is organized into a headquarters detachment and a battalion detachment for each battalion in the division artillery.

a. The Headquarters Detachment. The headquarters detachment is organized to perform technical and administrative functions for the subordinate battalion medical detachments. However, the artillery battalion commander is responsible for the operation and control of his respective medical detachment during combat.

b. Battalion Medical Detachments. The battalion medical detachments are organized into a detachment headquarters composed of the detachment commander (battalion surgeon) and personnel required for the establishment of an aid station. There is a battery aid group which provides battery aid men for the subordinate batteries of the artillery battalion. Battalion medical detachments in field artillery units do not include permanent litter squads. The company battalion position makes the distances between battery positions and aid stations relatively short. During lulls in combat, casualties may be transported from the battery positions to the aid station by battery aid men, aid station personnel, or combat personnel of the battalion. Also the organic ambulances of the medical detachment may be utilized for this purpose.

c. Aid Station Sites. The general requirements of a site for an aid station are the same as those of the infantry; however, the location of the aid stataion with reference to other elements is governed by different considerations. It should be conveniently located either within, or immediately adjacent to, the battalion position. It may be on the edge of the position including the forward edge. The terrain may be such that satisfactory protection can be had near the center of the position.

d. Evacuation of Aid Station. The fewer casualties and the relatively greater stability of the aid station permit casualties to be better prepared for evacuation in the field artillery than is ordinarily feasible in the infantry. For this reason, as well as the fact that it would frequently require the forward movement of casualties, casualties of a field artillery aid station rarely pass through the collecting station of the medical company of the infantry, but normally are evacuated directly to the clearing station. If the field artillery battalion position is in proximity to the collecting station of the infantry regiment, their casualties may be evacuated through this station. Field artillery aid stations may be evacuated on call by ambulances of the division medical battalion. Since motor ambulances are organic equipment in the

medical detachments of field artillery battalions, they are able to evacuate their own aid station.

e. Antiaircraft Artillery. Procedures laid down for the medical service of field artillery apply, in general, to the medical service of antiaircraft artillery. Unless antiaircraft artillery is plentiful, the dispersion of the units will ordinarily be greater than in the case of field artillery, with reference both to battalions and to batteries within a battalion. This dispersion, necessary for adequate antiaircraft artillery protection, adds to the difficulties of medical service. This disadvantage, however, is somewhat offset by the lower casualty rate. Antiaircraft units also may be provided with incidental medical service furnished by other units in the immediate vicinity.

122. CHARACTERISTICS OF COMBAT ENGINEERS

The combat engineer battalion functions primarily in engineering missions, but in addition, also engages in combat in the role of infantry. (For further details of engineer operations, see FM 5–5.)

123. ORGANIZATION AND EMPLOYMENT OF THE MEDICAL DETACHMENT OF THE COMBAT ENGINEER BATTALION

The medical detachment of the combat engineer battalion is designed to serve the unit in its primary mission. Normally the detachment is composed of a headquarters detachment and company aid men. Usually only one company aid man is furnished each company. The employment of the detachment is dictated by the type of mission which is performed by the battalion.

a. In engineering missions, the battalion is frequently dispersed, the individual platoons functioning separately. Under these circumstances, medical service is furnished with difficulty to the scattered elements. For elements smaller than a platoon, incidental medical service will be furnished by other units of the division in their vicinity, and the battalion aid station will normally be operated in the vicinity of the headquarters of the battalion.

b. In combat missions, the pattern of medical service is that of the infantry. The small size of the detachment, however, makes it necessary that it be reinforced with litter bearers when it engages in combat. Ordinarily the only source of reinforcements will be the engineer unit.

124. CHARACTERISTICS OF TANK BATTALIONS

Armor is characterized by its mobility and flexibility of operations. Normally the tank battalion in the infantry division will be employed either in mass; or, as the tactical situation dictates, subordinate elements may be utilized in widely scattered missions. (For further details on armored operations, see chapter 12 and FM 17–50.)

125. ORGANIZATION AND EMPLOYMENT OF THE MEDICAL DETACHMENT OF THE TANK BATTALION

Medical service of armored units, to be of any value, must be adapted to the peculiar characteristics of such units. Any attempt merely to adapt the medical service of foot troops to armored units will fail because of the speed at which such units move and the extent of the areas covered. The aid station will have lost contact before it is established. By the time division medical service will have established contact with the aid station, the armor will have reorganized and moved on.

a. It is apparent that the medical service of the tank battalion must be maintained mobile in order to adequately support the battalion. Company aid men accompany their respective companies in vehicles. They remove casualties from the tanks, render emergency medical treatment, and evacuate them to the aid station. The aid station is normally established only to that extent necessary, since it must be kept as mobile as possible in order to move rapidly. Casualties are treated and either placed in predesignated positions for further evacuation by the division medical battalion; or they may be retained in the tank battalion until such time as the battalion is withdrawn from combat, when the casualties are then turned over to the division medical service.

b. When subordinate elements of the battalion are employed in widely scattered areas, medical service must be furnished from other units operating in the area.

c. For further details of medical service with armor, see chapter 12 and FM 17–50.

126. NONCOMBAT SITUATIONS

In noncombat situations, the medical detachments with separate battalions and the medical detachment of division headquarters will normally operate dispensaries for the routine treatment of slightly sick and wounded that are not incapacitated for duty. Their function is similar to that of the medical platoons of the infantry regiment.

127. SUPPLY OF MEDICAL DETACHMENTS

The pattern of supply for medical detachments of separate battalions follows closely that for the medical company of the infantry regiment.

a. In combat the urgency of supply demands that methods be both simple and flexible. Supplies other than medical are obtained as directed by the unit commander for all subordinate elements of the unit. Battalion surgeons are responsible for the procurement of medical supplies for the battalion. These supplies are obtained in the same manner as those for the medical company and may be brought forward either by vehicles of the battalion or by ambulances of the division evacuating the battalion aid station. Property exchange is mandatory by supporting units.

b. In noncombat situations both medical and general supplies will be obtained in accordance with standing operating procedures and current policies.

c. See paragraph 68 and FM 7–30.

CHAPTER 5

MEDICAL SERVICE IN CAMP AND BIVOUAC

128. DEFINITIONS

A camp is a temporary or semipermanent installation for troops. A bivouac is a preselected piece of terrain generally in rear areas out of direct contact with the enemy where a command rests and prepares for further movement.

129. MEDICAL SERVICE IN CAMP

The considerations governing the dispositions of troops in a camp are: convenience in command and administration, facilities for training, and the adaptability of the terrain to sanitary requirements.

a. The existence of a sickness in any group of people, including soldiers, is among the most predictable of all events. Every unit of any size will arrive in camp with sick or injured requiring immediate care and treatment. The first requirement in the establishment of any camp is the provision of proper facilities and sufficient medical personnel for the care and treatment of the sick. Medical units, in proper proportions, must be given a high priority in each phase of a concentration.

b. Temporary care and emergency treatment of the sick and injured must be undertaken at the time and the place that the casualty and the medical service are brought together, regardless of the available facilities. This is a responsibility imposed by necessity rather than by professional judgment. Tentage is not the ideal shelter for seriously ill or injured patients. Optimum temperatures cannot be maintained under canvas in either hot or cold weather. The disabled require more conveniently arranged sanitary facilities than can ordinarily be provided in tents. *Tentage is never the shelter of choice for sick and injured.*

(1) Detailed care and treatment of casualties require the more important utilities found only in permanent plants. The use of existing buildings constructed for other purposes or temporary buildings erected for hospital use best meets the need. Large warehouses and other industrial structures frequently are poorly subdivided, lack proper ventilation, and are apt to be located in an area where cleanliness is difficult or impossible. While in the absence of more satisfactory buildings such structures

may be used temporarily, their selection for extended use can rarely be justified. Few private dwellings are well adapted to hospital use because of poor internal arrangements; for example, stairways impossible of passage with a casualty on a litter. Apartment houses may be satisfactory, provided stairways are suitable or the elevators will accommodate wheeled or other litters. Public buildings, such as schools and courthouses, as a group, are well adapted to hospital use. Ample corridors lead to all parts of the building, stairways are wide, rooms are large, and sanitary facilities are designed to provide for the needs of groups rather than of individuals.

(2) Civil hospitals are the most ideal of all existing structures, but their exclusive use is rarely feasible because of the requirements of the civil population. Nor, in general, is their capacity sufficient for any considerable number of troops, since civil populations make less use of hospitals than do military forces. The hospitalization of military personnel in institutions operating under civil jurisdiction is an expedient that should be chosen only in emergencies.

(3) In the absence of suitable existing structures, new construction must be undertaken; but, whether the plant is of new construction, in a building adapted to the purpose, or under canvas, it must be completed, equipped, manned, and ready to receive casualties on time.

c. Sanitation, in its broadest sense, is the first concern of the surgeon of every unit in camp.

d. Next to care of the sick and wounded, training is the principal activity in a camp. All other essential functions are so organized as to interfere as little as possible with training. The medical service must be organized to provide prompt and adequate care and treatment of the sick and injured and, at the same time, afford the opportunity for proper training of medical personnel. Since casualties in camps are usually limited to diseases and nonbattle injuries (except in the case of air attack), medical units of the division, at authorized strengths, can usually be properly trained and still discharge their service functions.

e. The dispositions of the several platoons of a regimental medical company will be dictated by dispositions of the subordinate elements of the regiment. Whenever possible, however, control of all platoons should be retained by the medical company commander in the interests of training and administration. This will not interfere with the combined training of the battalion platoons

with their respective battalions. On the other hand, when the medical service of the unit can be centralized in one dispensary, the time available for all training is increased.

(1) The *functions* of unit medical service in camp are the operation of dispensaries for the primary treatment of the sick and injured, instruction of all personnel of the unit in hygiene and first aid, supervision of sanitation, and the training of unit medical personnel.

(2) Since ambulances can operate in all parts of a camp, there is no necessity for collecting units to function in evacuation.

f. Division ambulance elements evacuate the dispensaries of the various units of the division. To insure coordination, this task should be assigned to a particular ambulance unit; and, to facilitate training, the duty should be rotated among the ambulance elements of the company. Ambulances should evacuate dispensaries promptly after each sick call and on call at other times.

g. Clearing is primarily a combat function and is not necessary to the medical service of a camp. The clearing unit ordinarily operates the dispensary of the division medical battalion. Experience has shown that clearing units cannot be given proper field training if they are required to operate a fixed hospital. Their duties in the field require facility in loading, transporting, unloading, and using their combat equipment. Certain technical specialties in clearing units may be given individual training in the fixed hospital of the camp.

h. A station hospital should be established in or very near each camp. Casualties from tactical units may be admitted by informal transfer from their unit dispensaries so that they are returned to their organizations when ready for duty. Those requiring treatment in a general hospital will ordinarily be transferred formally and will require replacement.

130. SICK CALL

a. Strictly speaking, "sick call" is a bugle (or trumpet) call. It announces the time for the assembly of all sick and injured, other than those in hospital, for the purpose of reporting to a medical officer. Through long usage, however, the term "sick call" has supplanted older terms, such as "sick parade," for the formation itself. The primary purpose of sick call is to sort the disabled from those who are fit for duty. All procedures are directed solely toward this end. All personnel of a unit who are sick or have been injured will report to the dispensary after having their names placed on the sick report. The medical officer on duty

will provide medical attention for and make disposition of all patients. After sick call is ended, he will make diagnoses of the exact nature of all disabilities reported and provide treatment for them. (For detailed instruction on the conduct of sick call, see current Army Regulations.)

b. Soldiers cannot be expected to regulate the onset of illness or the incurrence of injury by the schedule of sick call. Regardless of the hour of sick call, or how many sick calls are held daily, there will be cases that must be cared for at times other than designated times. In well-trained commands, these cases will be comparatively few in number; but their need, nevertheless, is urgent. Whenever practicable, the company sick report should accompany every patient to the dispensary, whether he comes at sick call or at another time. In emergencies the patient is sent without the sick report, which should then be sent, with a proper entry, to the dispensary without unnecessary delay.

131. MEDICAL SERVICE IN BIVOUAC

The dispositions of troops in bivouac are governed by considerations of security, secrecy, and future tactical employment. Their arrangement usually differs from that in camps, tactical units being more widely dispersed and security detachments (outposts) operating at some distances from the bivouac area proper. Necessity for secrecy may impose restrictions upon medical operations.

a. Unit Medical Service. Battalion platoons are ordinarily attached to their respective battalions and, depending upon the situation, may or may not operate battalion dispensaries. The regimental dispensary may be able to serve one or more battalions in addition to the headquarters, but tactical considerations will prohibit soldiers wandering any distance in search of medical care.

b. Collection. A collecting station is not established in bivouac.

c. Evacuation. Division ambulances evacuate dispensaries. This mission ordinarily is assigned to one ambulance unit of the company and may be rotated among such units. Depending upon the situation, dispensaries may be evacuated at prearranged hours, on call, or by both methods.

d. Clearing. The disabled must be evacuated from the division area as in any situation in the presence of the enemy; so a clearing station must be established for that purpose, although only so much of its equipment is set up as the immediate situation requires.

132. MEDICAL SERVICE OF OUTPOSTS

An outpost is a security detachment posted to protect the main body from hostile ground observation and against a surprise attack. The distance that it operates from the main body depends upon its strength, composition, and mission, and upon enemy capabilities. This distance is usually sufficient to protect the main body from hostile small-arms fire, and *may* be great enough to prevent the enemy's artillery from bringing effective fire upon the main position. There may be but one outpost operated under central control; there may be two or more outposts, each a separate command, operated under central control; or the various units of the command may each outpost their own positions or areas with local security detachments. The details of the medical service of an outpost will depend upon the organization, size, and character of the outpost.

a. Unit Medical Service. Battalion medical platoons are attached to their respective battalions. Dispersion of elements may indicate an increase in the number of company aid men, requiring the use of litter bearers for this purpose. Each company may be required to evacuate its casualties to the battalion aid station or to an ambulance loading post. If elements of the battalion are detached, the medical personnel are proportioned among the several elements. Aid stations are not established until the necessity therefor arises.

b. Collection. A collecting station is not established specifically to support an outpost unless the outpost becomes engaged and its mission requires it to hold its position. In this event the outpost line becomes a line of resistance and the medical service becomes that of a defense. However, units on outpost ordinarily cover such extended fronts that some reinforcement of their attached battalion medical platoon may be necessary. Such reinforcements are drawn from collecting elements and attached to the outpost. The specific employment of these reinforcements will be determined by the outpost commander advised by his staff surgeon.

c. Evacuation. Division medical battalion ambulances may evacuate the outpost upon call. It is usually preferable, however, to attach ambulances to the outpost for this purpose. Such attached ambulances are especially useful during the withdrawal of an outpost under fire.

d. Clearing. The clearing station of the division serves the outpost.

e. Medical Service in Withdrawal of Outpost. The general procedures of medical service in retrograde movements apply in the withdrawal of outpost. The wide dispersion of elements and the rapidity with which they withdraw under ordinary conditions make collection of casualties difficult, but also operate to reduce the number of casualties. If the withdrawal be slow and interrupted by intervals during which the advance of the enemy is resisted seriously, aid and collecting stations may be established in part and a medical service established comparable with that of defense. However, when the withdrawal is rapid, time does not permit the establishment of medical stations. Ambulances move along convenient axes, and litter bearers carry casualties laterally to the ambulances. The withdrawing combat troops should be issued litters and, when not engaged in combat, should assist in the removal of casualties to the ambulances.

133. REFERENCES

For general principles governing camp and bivouac see FM 7–30, FM 100–5, and FM 7–40.

CHAPTER 6

MEDICAL SERVICE ON MARCHES

134. GENERAL

Troop movements are made by marching (by foot, animal, or motor), by rail, water, air, and by various combinations of these methods. The method to be employed depends upon the situation; the size and composition of the unit to be moved; the distance to be covered; the urgency of execution; the condition of troops; and the availability, capacity, and suitability of the different means of transportation. In addition, marches are also classified as administrative and tactical. The former are those which are made for administrative reasons and usually with relative security, while the tactical march is made for tactical reasons under combat conditions. For the purpose of this discussion only the latter type, tactical marches, will be considered. A command may march in one or more columns. When in the presence of the enemy, each column ordinarily includes combat teams of infantry and artillery, with supporting units of other arms and the services, and is organized into a main body and one or more security detachments.

135. MAIN BODY

The main body is organized in different ways, depending upon whether tactical employment, comfort of the troops, or other considerations are governing. In the presence of the enemy, it is invariably organized in a way that will facilitate its development for combat. This requires combat teams of infantry and artillery, with their normal supporting troops, to be placed near each other in the columns. In this manner, tactical combat groupings are maintained which will facilitate their development for action.

136. SECURITY DETACHMENTS

Security detachments of marching units consist of reconnaissance detachments and advance, flank, and rear guards. The use of an advance guard is habitual when in the presence of the enemy, regardless of the direction of the march. Other security detachments are employed as the situation indicates.

a. Reconnaissance Elements. A reconnaissance element has no permanent organization; it must be improvised to meet the needs of a particular situation. Generally speaking, it consists of a de-

tachment armed with rifles and machine guns and transported in motor vehicles. It may be reinforced with truck-drawn artillery and other troops. In general, reconnaissance elements operate at greater distances from the main body than other security detachments.

(1) A reconnaissance company is an organic element of the infantry division. It is a mechanized unit of fixed organization whose principal subordinate elements are company headquarters and three platoons, each equipped with vehicles.

(2) A reconnaissance battalion is an organic element of the armored division. It is also a mechanized unit with prescribed organization.

b. Advance Guard. An advance guard is a security detachment which precedes and covers the column on the march. It is normally composed of troops taken from the column it is protecting; and it operates under orders of the column commander. The advance guard acts to guard against surprise and to obtain information; to push back small bodies of the enemy; to delay the enemy's advance in force long enough to permit the main body to prepare for action; to initiate intensive reconnaissance when the enemy is encountered deployed for defense; to remove obstacles, repair roads, and bridges; and to facilitate in every way possible the uninterrupted march of the main body.

(1) The strength and composition of an advance guard vary with the strength of the command, the mission, the situation, and the terrain. The strength of the infantry component of an advance guard will vary between a small fraction and as much as one-third of the total infantry strength.

(2) An advance guard is organized into a support and a reserve. The support precedes the reserve, and is divided into support proper and the advance party. The advance party sends out a point which precedes it on the march.

c. Flank Guard. When the flanks of a command are not protected by adjacent units, it will frequently be necessary to provide flank protection by the detail of a flank guard. The mission of the flank guard is to protect the marching column from ground observation and surprise from the flank, and, in the event of an attack in force, to provide the necessary time and space for the development of the main body. The strength and composition of such flank guards will depend upon terrain, the proximity to the enemy, and the force involved in the march.

d. Rear Guard. A rear guard protects the rear of a marching force. It protects the main body from harassing action, surprise attack, and observation by holding the enemy at such a distance that his weapons of longest range cannot be effectively employed against the main body. The strength, composition, and employment of rear guard vary between wide limits, depending upon the mission, the terrain, the road net, and the attitude and capabilities of the enemy.

137. GENERAL CONSIDERATIONS OF MEDICAL SERVICE FOR MARCHING COLUMNS

Medical personnel administer emergency medical treatment along the route. Much of this can be done during halts. When a medical soldier falls behind performing such duty, he hastens to rejoin his unit when he has finished. Casualties are disposed of as follows:

a. If the casualty is able to continue the march without further assistance, he is sent to rejoin his unit. If he is able to resume the march with some assistance, he is relieved of all or part of his heavy equipment and provided with transportation on some vehicle of the unit train. His equipment, if he continues the march on foot, may be placed on a unit vehicle, in an accompanying ambulance, or distributed among his abler comrades.

b. If the casualty is unable to continue the march, he walks, is carried, or is transported in a vehicle, as the case may be, to the next march collecting post.

138. GENERAL CONSIDERATIONS OF MEDICAL SERVICE WITH SECURITY DETACHMENTS

The organization and operation of the medical service of a security detachment will vary widely with the strength, composition, mission, and zone of operations of the security detachment. Certain general principles apply, but even these must be interpreted in connection with the special elements in each situation. The more important of these principles are the following:

a. In every security detachment, elements as large as a regiment must be accompanied by their regimental medical company or detachments therefrom; those as large as battalions, by their battalion medical platoons or detachments; and others by a proportionate share of the medical personnel of the unit from which they are taken.

b. Unless medical contact can be maintained between the security detachment and the main body, division medical troops must be

attached to the security detachment and the responsibility for evacuation of the command decentralized to the security detachment commander.

c. The strength and composition of the reinforcing medical troops are determined by the strength of the security detachment, its mission, and the probable enemy reaction thereto. If serious combat is a possibility, more medical service will be required. The zone of action of the security detachment is also a determining factor in the strength and composition of reinforcing medical troops. The greater the distance it operates from the main body, the more independent must it be of the main body. If, within a reasonable time, the main body will traverse the zone of operation of the security detachment, the medical reinforcements need not be so great. The bulk of the casualties of the security detachment may safely be left, with or without attendants, for the main body to evacuate, reducing thereby the need for medical means, particularly ambulances.

d. Facilities for clearing are not ordinarily attached to a security detachment smaller than a regiment. The casualties of smaller security detachments are cleared through the clearing station of the main body or, if it is more convenient, through other medical installations in the area.

139. MEDICAL SERVICE WITH RECONNAISSANCE DETACHMENTS

The organization and employment of reconnaissance detachments vary so widely that none but general doctrines may safely be stated. Medical personnel will be assigned according to the size of the reconnaissance element and will conform in its employment to general doctrines of unit medical service. Collection and evacuation of necessity will have to be performed by supporting elements.

140. MEDICAL SERVICE WITH ADVANCE GUARDS

Since the main body may be expected to follow the advance guard within a reasonable time, march casualties of the advance guard may be disposed of through the march collecting posts. However, in some situations, the advance guard may be expected to engage in serious combat before the main body can be developed. In this event, there may be a considerable delay before the medical support of the advance guard can be undertaken by the collecting element of the regimental medical company of the division medical service. Some collecting personnel and ambulances should be attached to the advance guard in order to insure prompt support to its unit medical personnel. They should revert to the control of the parent unit as soon as march conditions cease.

141. MEDICAL SERVICE WITH FLANK AND REAR GUARDS

a. Flank Guards. The main body cannot be expected to traverse the zone of operations of a flank guard; therefore, casualties occurring in this element must either be carried with the troops or transported to the main body.

b. Rear Guards. Depending upon the situation, the medical service of a rear guard will be that of an attack, a defense, a withdrawal, or a delay on successive positions. Since the general operation of a rear guard is a retrograde movement, time becomes an important factor and the medical service should be augmented accordingly. (For further details, see chapter 9.)

142. COLLECTION OF CASUALTIES

A march collecting post is a station along a route of march where unit medical personnel may transfer to the collecting element such casualties as are unable to continue the march. Each is operated by one or more soldiers of the collecting unit and is equipped with litters, blankets, dressings, and simple medicines. A supply of potable water is most desirable, although this may have to be furnished in containers. The site must be adjacent to the route of march and should provide some comfort to casualties, such as shelter or shade. If the road net permits ambulances using routes other than those used by marching columns, march collecting posts should be located so as to facilitate the use of such routes.

a. Establishment of March Collecting Posts. The sites for march collecting posts are selected in advance and announced in the march order. The number of posts established depends upon the length of the march, the road net, the physical condition of the troops, and the weather. In general, they need not be closer than every mile or two and should not be farther apart than every 4 or 5 miles. Because of their more rapid rate of march and means of transportation available to each soldier, march collecting posts ordinarily are not used with reconnaissance and armored columns.

b. March Control. Medical personnel are attached, for march control only, to the advance guard. This detachment marches in rear of the reserve of the advance guard and drops off, at the site of each designated collecting post, the personnel and equipment to establish that post. When any ambulance of this detachment drops the last of its load, it remains at that particular collecting post and reverts to the control of the parent medical unit. This detachment must not be confused with reinforcements for the advance guard.

c. Operating March Collecting Posts. Although a march collecting post is a simple installation and only very simple procedures may be undertaken, the general principles of the operation of a collecting station apply.

d. Closing March Collecting Posts. Each march collecting post is closed when the rear of the column approaches. An ambulance element marches near the rear of each column to gather the personnel from the closed posts.

e. Other Methods of March Collection. When the establishment of march collecting posts is impracticable, march casualties may be collected and evacuated by one of two other methods. They are dropped by the wayside and collected and evacuated by a detachment of medical personnel and ambulances marching at the rear of the column. Casualties may also be carried in ambulances which are attached to regiments or smaller units; they are carried with such organizations until such time as they can be transferred to the division medical service.

f. Division Ambulances. The task of evacuating march collecting posts is allotted to one or more ambulance units of the division medical battalion. For such evacuation, the road net may force ambulances to use the same routes used by marching columns. Whenever possible this should be avoided. When other routes are used, provision must be made for the evacuation of such casualties as may be dropped at places other than march collecting posts.

143. CLEARING

The clearing station already established (or, if none is established, one established at the previous camp or bivouac) will serve for the early stages of a march. As the distance between the marching columns and the clearing station increases, it must be displaced to a more suitable location. Ordinarily, not more than one such displacement will be required in any one day of march although, if the enemy is encountered, a new location may be indicated at once.

144. MARCH DISPOSITIONS OF MEDICAL UNITS

The procedures set forth in this paragraph apply only to such medical units, or elements thereof, that are not engaged in furnishing the medical service of the march. Nor are they intended to restrict any dispositions that may be desirable in marches conducted solely for the purpose of training. The application of one fundamental is essential: *Medical units must be so disposed in marching columns that they may enter combat without delay in the*

support of such units as they are expected to support. If separated in the column from the units they are expected to support in combat, medical units will experience great difficulty in establishing contact after development has commenced and may fail altogether in the performance of their mission. For this reason unit medical personnel must march with their respective units. Elements of the division medical service must be so placed in columns as to facilitate contact with the combat teams which they will support if and when the enemy is encountered.

a. Unit Medical Personnel. If there is more than one medical officer with a unit, the surgeon marches with the commander and the others with the bulk of the medical elements. If there is but one, he marches with the bulk of the medical unit. Battalion medical platoons of the regimental medical company, less company aid men, march in the rear of their respective battalions but in advance of the battalion train. Company aid men follow their respective companies. The company headquarters marches in rear of the regiment but in advance of the regimental train. Medical vehicles march with the trains of units with which they are serving. The medical vehicles of unit medical personnel carry combat medical equipment. Battalion medical platoons cannot function efficiently for any length of time with the individual equipment carried on the persons of the officers and men. Litters are required at once, and medical pack equipment or chests are required as soon as an aid station is established. For this reason the medical vehicles of each battalion medical platoon will accompany the vehicles transporting the heavy weapons and extra ammunition of that battalion, and will remain with them at all times. The medical vehicles of headquarters units accompany the vehicles transporting the equipment of the regimental headquarters.

b. Division Medical Unit. The proper medical support for each major combat team will follow it, and may be attached to it for march control. Such dispositions minimize delay in establishing division medical service in the event of combat. Clearing units, accompanied by headquarters and headquarters company, will march together, preferably in rear of one of the center columns. In the usual situation, this will place them near their probable location if they are required to establish station. Units of the division medical service used to reinforce security detachments and to provide medical service for the march will not be taken from the support of a combat team that will probably become involved in combat immediately upon contact.

145. MARCH CONTROL OF MEDICAL UNITS

When in the presence of the enemy, usually a division marches as two or more reinforced combat teams, each combat team being a subordinate command under division control. If a combat team marches in two or more columns, each column is a subordinate command of that particular combat team. After forming these combat teams, there will usually remain certain elements which must be organized into a special column, or columns, under division control. Each column may operate directly under division control, or all such columns may be placed in one subordinate command. Headquarters and clearing elements of the division medical battalion are usually placed in these special columns. Ambulance elements are usually placed in the combat team columns.

a. Division medical units or elements thereof engaged in the collection and evacuation of march casualties operate directly under division control, except that units engaged in establishing march collecting posts are placed under column commanders *for march control only.* Once such collecting posts are established, they are operated under division control.

b. All elements of the division medical service not attached to security detachments or engaged in collection and evacuation of march casualties are placed under column commanders. They cannot be operated by the commander of the division medical battalion until they have been released by the division commander from march control. When march conditions cease, such as entering in combat or arriving in camp or bivouac, a division order announces that fact, which, unless otherwise specified in the order, releases all division medical units to the control of the medical battalion commander.

146. REFERENCES

For general principles governing marches, see FM 7–30, FM 100–5, and FM 7–40.

CHAPTER 7

MEDICAL SERVICE IN THE OFFENSIVE

147. CHARACTERISTICS OF THE OFFENSIVE

The purpose of offensive action is the destruction of the hostile armed forces. It is characterized by the positive action of fire and a maneuver combined and controlled to create a preponderance of force in the decisive direction. Weak localities are exploited, whereas localities strongly defended by the enemy are masked and isolated. The attack is made with all available strength. The mass of the means is disposed in depth behind the front chosen for the main attack. Fire and smoke are employed to neutralize the enemy's defended localities. General reserves are held available to exploit the successes, to hold the ground gained, and to carry on the action against countermeasures of the enemy.

148. CLASSIFICATION OF ATTACKS

Attacks are classified with respect to purpose, depth of advance planned, degree of coordination, and amount of preparation by the defender.

a. Purpose. In the execution of an attack, the hostile front is engaged to fix the enemy troops in position; this operation constitutes the *secondary* attack. A strong attack is then organized and directed against a selected objective believed to be vital to the defender. It is provided with such means and is directed and conducted to insure the greatest chance of success. The latter is the *main* attack. Thus, all offensive combat develops into main and secondary attacks.

b. Depth of Advance. With respect to restrictions placed upon the depth of advance in any attack, such attack is *limited* or *unlimited.* The secondary attack is usually a limited attack. The main attack may be limited or unlimited, depending upon the mission.

c. Coordination. An attack begun in accordance with a prepared plan which prescribes a definite mission for each element of the force is called a *coordinated* attack. When conditions preclude complete development and units are employed successively as they become available and without waiting to prepare a coordinated attack, the action is termed a *piecemeal* attack.

d. Preparation by Defender.

(1) *Surprise attack.* A surprise attack consists of an ambuscade, aerial attack, or other sudden onset made against a hostile force caught unawares.

(2) *Attack against enemy deployed for defense.* An enemy deployed for defense occupies a position but has not had sufficient time to organize it.

(3) *Attack against organized position.* An organized position comprises an organized battle position protected by outposts. The elements of fire, as well as observation and obstacles, are arranged to complement and supplement each other to a high degree. The effectiveness of all of these elements is further increased by artificial means, such as construction of defensive works and demolition of routes of approach.

(4) *Attack against defensive zone.* A force in a determined defensive attitude is disposed in a defensive zone composed of successive positions arranged in depth and with prepared alternate positions. The degree of organization is much greater than in the case of an organized position.

149. MANEUVERS IN THE OFFENSIVE

Attack maneuvers are classified as envelopments or penetrations.

a. Envelopment. In an envelopment the main attack is directed against the flank or rear of the initial disposition of the enemy's main forces and toward an objective in the rear of his front lines. It seeks to surround that portion of the enemy forces in front of the objective. It is assisted by the secondary attack. The enveloping attack overpowers the opponent by striking him in the flank. Enveloping attacks seek to avoid the organized battle position of the defender and to strike, with the main effort, at a place or places where he is least prepared, either by organization of the ground or the disposition of his forces, or both, to resist the attack. An envelopment may be directed at any part of the flank of the hostile position. It may be designed to strike an immediate flank, not far from the front of the secondary attack. In such a case considerable coordination between the main and secondary attacks is required, including the prescription of a boundary between the zones of the two attacks. It may be designed to strike deep in the enemy rear and at such a distance from the secondary attack that no boundary between the two is necessary, or it may be directed at any point between these two extremes. The secondary attack is designed to pin down and fix the enemy forces so that he is unable to move to meet the threat of the main attack.

Close control, coordination, and supervision of both the enveloping and secondary attacks by the commander of the whole force; detailed orders; designation of a boundary between attacking forces; and centralized control of supporting troops, including medical, are characteristic of the envelopment. Envelopments are further classified as single envelopments, double envelopments, or turning movements.

(1) A single envelopment is one in which the enveloping attack is directed at only one flank of the enemy.

(2) A double envelopment is one in which enveloping attacks are directed at both flanks of the enemy.

(3) A turning movement is an enveloping force which passes around the enemy's main forces to strike at some initial point deep in the hostile rear. The force making the maneuver usually operates so far from the secondary effort that the principal tactical groupings are beyond mutual supporting distance; hence each force must be strong enough or mobile enough to avoid defeat in detail.

b. Penetration. A penetration is a frontal attack which contemplates piercing the enemy defense in sufficient width and depth to rupture completely the hostile position and seize an objective in the enemy rear with a subsequent envelopment of one or both flanks.

150. ATTACK IN WAR OF MOVEMENT

A meeting engagement is the collision between two opposing forces en route, neither force having time or space for development. Prompt estimate of the situation, quick decision, and prompt action are essential to success.

151. CHARACTERISTICS OF THE OFFENSIVE INFLUENCING MEDICAL SERVICE

The form of an attack will have considerable influence on the operation of the medical service in regard to the number of casualties and their distribution in time and space, the allocation of medical support, the location of medical installations, and the movement of medical units.

a. Surprise. Surprise is an important factor in the success of an attack. Preparations must be as nearly secret as possible. This requirement frequently will prevent the movement to position and establishment of medical troops of the larger medical installations until immediately before, or even after, the start of the attack.

b. Planning. The attacker has the initiative and, so long as he holds it, directs the course of the action. Except in uncoordinated

attacks, action is planned in advance. Comparable advance planning of the medical service is essential, and, to affect this, all essential information must be available to the responsible medical officers.

c. Exploitation of Success. Except in limited attacks, when the enemy has been forced to withdraw from his defensive position, the success gained is exploited in order to prevent his organization of a new defense on a rearward position; to force him to retreat; and finally, by energetic pursuit, to turn the retreat into a rout and destroy him. This characteristic of the attack requires medical planning and provision of medical support for the pursuit.

152. MEDICAL DOCTRINE OF THE OFFENSIVE

Attack from the medical standpoint consists of the forward movement of casualty density areas into the hostile position; medical installations must advance in support.

a. Mobility is the salient requirement of medical service in attack.

b. The ability of medical installations to move depends on their timely evacuation by supporting medical troops.

c. Unit commanders are responsible for the collection of their casualties at unit aid stations.

d. Collecting elements normally evacuate aid stations, not terrain.

e. The vital link in the chain of evacuation lies between the aid station and the collecting station.

f. Battalion aid and collecting stations are located to support the casualty density areas of the attack.

g. Casualties from combat units attacking over a wide front will be slow coming into aid stations and collecting stations because the length of litter haul is great and hostile fire that prevents the advance of combat elements retards the collection of casualties.

153. INFANTRY REGIMENTAL MEDICAL SERVICE IN THE ATTACK (figs. 9 and 10)

The mission of the infantry is to close with the enemy and destroy him. It accomplishes its mission in three principal ways: by fire, by movement, and by shock action. Fire and movement of combat elements increase the difficulty of medical service, both in maintaining contact and in removing casualties from the field. Since the effectiveness of its support ceases when it loses contact, each medical element of an infantry unit must subordinate other considerations to that of maintaining contact with its unit.

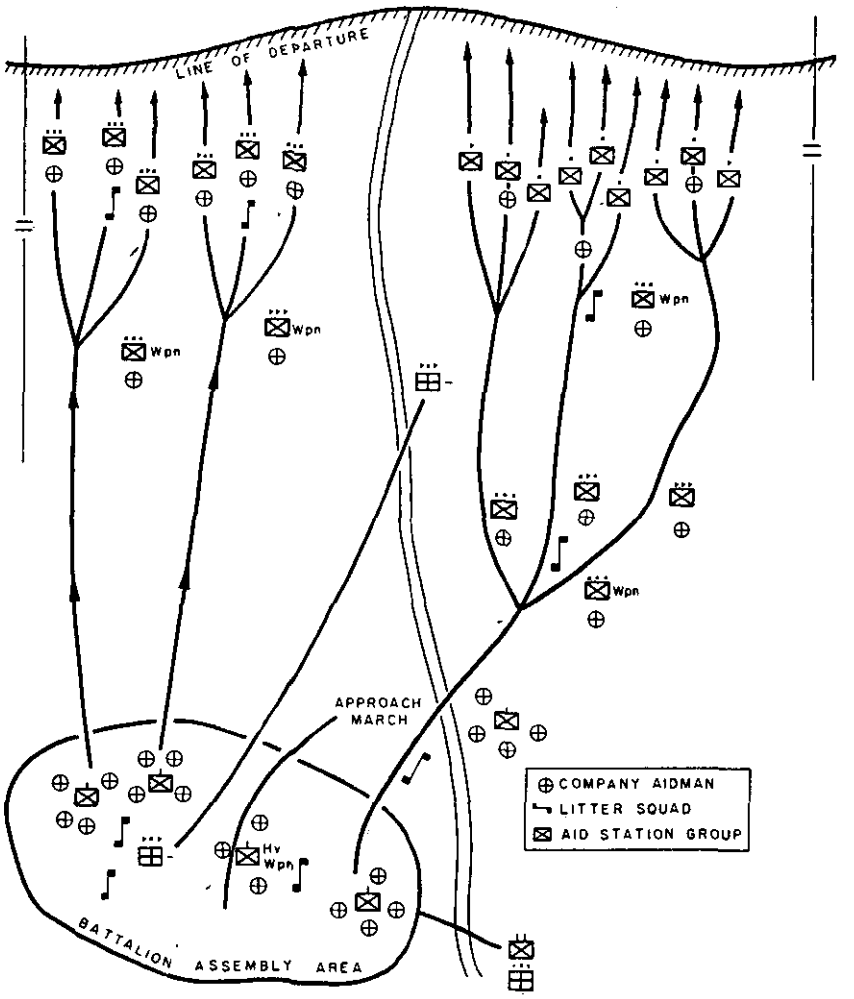


Figure 9. Approach march of a battalion medical platoon (schematic).

a. Battalion Medical Platoons. Battalion medical platoons are attached to their respective battalions. Prior to combat, before reaching the zone of hostile artillery fire, march columns are broken up into smaller columns which march to designated assembly positions. Depending upon the situation, a battalion may remain in one march column, although moving cross country until it reaches the assembly position; or it may break up into company or even smaller columns before reaching the assembly position. During development the battalion medical platoon, less company aid men, marches at the rear of the battalion. As the battalion breaks up into smaller columns, litter sections are deployed to cover the entire battalion front.

(1) *Assembly area.* An assembly area is an area prescribed by a higher commander for the assembly of a unit for final preparations for the attack. Unit commanders regain control of scattered elements and organize their commands for combat. Packs are dropped, extra ammunition issued, reconnaissances and plans completed, and orders issued. Here the battalion surgeon receives the battalion order, completes his plans and issues his own orders, and causes extra medical equipment to be issued to company aid men and litter bearers. Whenever possible, medical vehicles will be brought as far forward as the assembly area. Under favorable conditions they may be taken even nearer the line of departure. In any event, they will accompany the other vehicles of the battalion train.

(2) *Approach march.* From assembly positions, troops advance in the approach march. Units march in smaller columns at increased intervals and distances and make full use of cover and defilade while moving toward the *line of departure.* Litter squads are deployed to cover the widening battalion front, and the remainder of the platoon, less company aid men, march along the axis of the advance in extended order. The battalion surgeon remains with the battalion commander as long as possible in order to keep himself informed of developments in the situation.

(3) *Line of departure.* A line of departure is designated by a higher commander for the purposes of coordination of the attack. Units move forward to the attack from the line of departure at a designated time. Initially, this movement may be a resumption of the approach march, but when the effectiveness of hostile fire makes it necessary for the infantry to return the enemy's fire in order to continue the advance without excessive losses, the advance by fire and movement is begun. This is termed *advancing the attack,* and it is at this point that the character of the medical service changes from that of the approach march to one of combat.

(4) *Company aid men.* Company aid men report to their respective companies prior to development, and remain with them throughout.

(5) *Litter sections.* Unless contra-indicated by other considerations, litter squads are deployed initially across the battalion front on the basis of the strength of the assault,

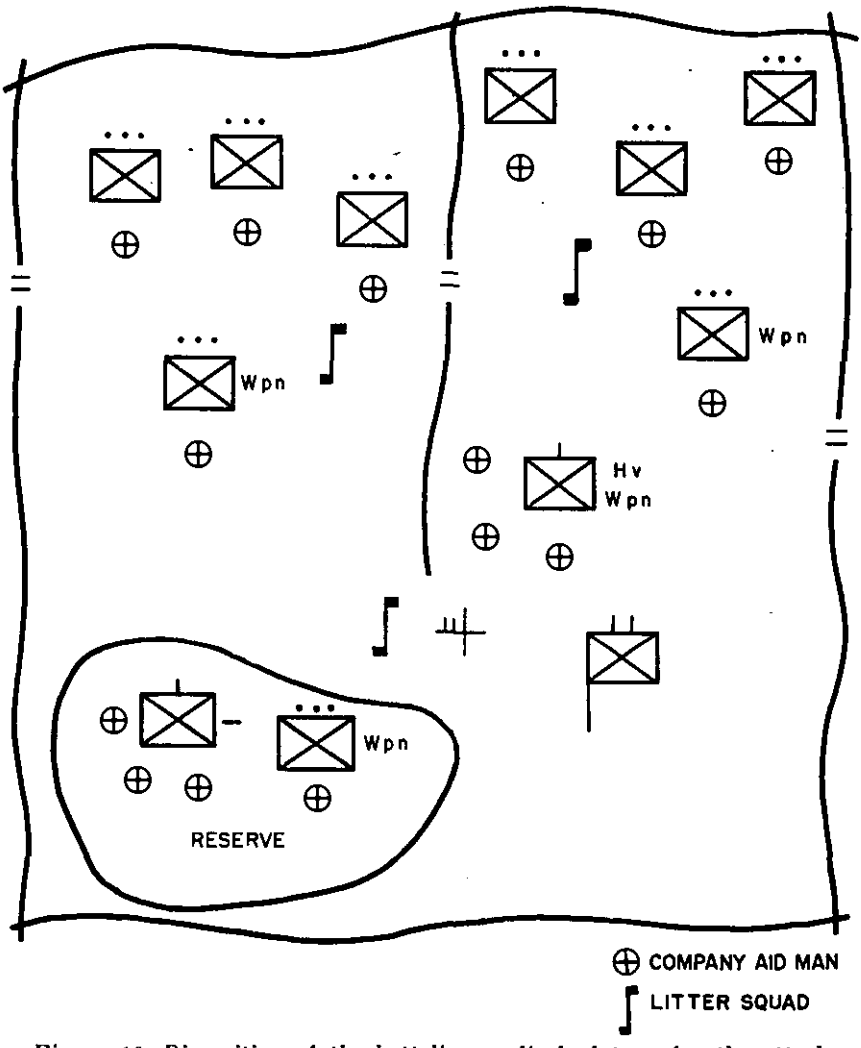


Figure 10. Disposition of the battalion medical platoon for the attack (schematic)

the number of units therein, and the task allotted each unit. The initial distribution of litter squads is modified as the situation changes. If elements of the battalion are held in reserve, a proportionate reserve of litter squads should be held to support them when they are committed. Litter squads follow the assault troops as closely as is consistent with reasonable safety, taking full advantage of all available cover and defilade.

(6) *Aid station.* The aid station is not established, or is only partially established, before the need therefor can be foreseen, or when there is slow progress or no progress

at all. In the early stages of an attack there may not be a single aid station fully established in the regiment. However, each unit surgeon observes the terrain as he advances, making tentative selections of sites against the time when he must establish his aid station. When established, only such part of the aid station is set up as appears to be required, and it must be moved forward, piecemeal if necessary, as soon as the advance of the combat elements leaves it out of supporting position. During the periods in which there is no aid station established, litter squads carry litter wounded, and direct walking wounded to the designated axis of advance of the aid station group, where they are treated, made comfortable, and left in a protected location for supporting medical troops to evacuate.

b. Collection in the Attack. The general nature of the operation of collection does not differ in the attack from other forms of combat. Whenever possible and practicable, liaison (contact) agents will report to battalion medical platoons prior to the launching of the attack. In meeting engagements this will usually be impossible, and liaison agents must be sent forward to locate aid stations that are already established.

(1) *Litter bearers.* Initially, aid stations may not be established, and casualties may have to be evacuated from the axes of advance of the combat elements. If movement is rapid, the bearers of the battalion medical platoons may not have cleared the field thoroughly, and the bearer squads and/or ambulances of the collecting unit may have to search the field. As the attack succeeds, and resistance becomes weaker, ambulances may be pushed well forward to lessen the burden upon litter bearers.

(2) *Collecting station.* Only so much of a collecting station should be established as is required or for which immediate need can be foreseen. When established, it should be well forward in order to forestall the necessity for early movement as the combat troops advance. Until it is established, the collecting station section advances along a designated axis so that it maintains contact with its own litter bearers, ambulances, and with the supporting ambulance unit. When the combat elements, supported by the collecting unit, are operating on a wide front, it may become necessary either to operate two collecting stations or to establish a collecting post, or posts, toward one or both flanks. When movement of a collecting sta-

tion is necessary, it is ordinarily moved by successive increments. A fraction—usually about one-half—is closed, loaded, moved to the new location, and reestablished. As soon as it is operating and information of the new location has reached all dependent agencies, the old station may be closed and this remaining fraction moved to the new location, provided all the casualties of the latter have been evacuated.

c. Reserve Battalions. Prior to the attack, all battalion medical platoons normally are attached to their respective battalions, including those initially in reserve. The confusion of battle and the movements of forward elements in the attack make it impossible to withdraw, from elements already engaged, any medical personnel to accompany reserve battalions into action. For this reason, unless urgently necessary, no medical personnel should be taken from reserve battalions to reinforce battalions already committed; and, if the formal attachment has already been made, such action is subject to the decision of the regimental commander.

154. MEDICAL SERVICE OF ARTILLERY UNITS

a. The tactical mobility of artillery is greater than that of infantry, but artillery does not combine movement with fire. Movement ceases when it becomes actually engaged, and the operations of its medical personnel do not vary with the type of the attack. During changes of position in combat, the medical service is that of the march. Artillery is usually placed well forward initially in the attack and is deployed less in depth than in the defense. In successful attacks artillery moves forward in such manner as to assure close support of the infantry. Since the firepower of artillery is so important to the advance of the infantry, and the great tactical mobility of artillery permits it to be withdrawn from action in one position and recommitted elsewhere with minimum delay, artillery is not held in reserve although it may reserve its fire while occupying a position.

b. Battalion medical detachments are attached to their respective battalions and battery aid men to their respective batteries. The battalion surgeon must keep abreast of the situation in order to close his aid station in time to accompany the battalion in a change of position. Aid stations are established, at least partially, whenever the battalion occupies a position.

155. DIVISION MEDICAL SERVICE IN THE OFFENSIVE

The difficulties encountered by the division medical battalion in the attack are associated with heavier casualty rates and the

maintenance of contact with the supporting force of the attack element.

a. In general, the attacker may be expected to suffer heavier casualties than the defender until the defense is disrupted and disorganized.

b. Attacking units, although maintaining contact, make no attempt to maintain alinement with like units on their flanks. Each attempts, by taking advantage of the terrain, to outflank easily defended areas. Thus, there frequently is no regular battle line upon which the division medical battalion may adjust its dispositions. Contact with aid stations and collecting stations becomes an individual problem with each station. Some stations may become so far advanced that their evacuation is most difficult, while the holding up of units on their flanks may prevent the advance of supporting units.

c. The main attack is usually launched at a flank of the defender in order to avoid, if possible, the better organized portions of his position. This maneuver increases the area occupied by the attacker and, if very wide, may require the duplication of medical installations.

d. In a meeting engagement the time available for medical planning is considerably reduced, and there is no time for detailed reconnaissance prior to the issuing of orders. Orders, both those received and those issued, are fragmentary.

e. So far as the medical command is concerned, boundaries between units may be in doubt, the locations and formations of attacking units uncertain, and friendly artillery positions and other important locations unknown. Communications are slow and uncertain. So far as possible, these difficulties are obviated by assigning missions to the subordinate elements of the division medical unit, and by leaving to those subordinate commanders the decisions concerning the details.

f. An effective reserve of medical support must be retained until the situation is clarified, when adjustments of the medical service may be made.

g. Most important to the employment of the division medical battalion in a meeting engagement are its dispositions on the march.

h. When there is time available to plan the medical service for the attack, adequate reconnaissance will be made, detailed plans drawn, and complete orders issued. Subordinate elements are moved to their initial battle positions prior to the launching of the attack. Personnel are afforded every opportunity to rest, supplies are replenished, and contact with subordinate medical units is established early.

156. DIVISION AMBULANCES IN THE ATTACK

Ambulance service of the division medical battalion in the attack operates in accordance with the normally accepted procedure (ch. 4, sec. IV).

157. CLEARING IN THE ATTACK

a. The clearing station should be established well forward not more than 4 or 5 miles from the lines of departure, when feasible.

b. When enemy covering forces must be pushed in and the position developed before the attack can be fully planned, it will be necessary to establish a clearing station, initially, behind the forces thus engaged. When the plan for the attack is developed, it may be found that the initial location of the clearing station is not suitable. In this event the station must be moved to a suitable location.

c. In other situations, the main attack may be launched at such distance from the secondary attack that no single location for a clearing station is satisfactory to all elements of the division. The unit must be divided in such situations and two or three clearing stations operated.

158. MEDICAL SERVICE IN MAIN AND SECONDARY ATTACKS

a. In the formulation of the medical plan, an analysis of the division tactical plan is first made to determine the location of power areas, the casualties to be expected in them, and the allotment of medical support to them. The major casualty area of the division will be in the zone of the main attack. The combat strength, in men, of units assigned to each attack measures its relative importance to the commander and the probability of its advance. This allows the surgeon to allot his medical support in rough proportion to the allotment of combat elements and to the casualties that may occur. The main attack making the greatest advance will therefore receive greatest support.

b. In the *main attack,* the major casualty areas will be in the zones of the subordinate elements making the principal effort of that attack. The lesser casualty areas will be in the zones of the remaining subordinate elements which make the secondary effort of the main attack. The strength, frontage, and probability of advance of the combat units in each effort again measure their relative combat importance and their requirements for medical support. The medical battalion commander must, therefore, have

knowledge of the plan of operation of each combat grouping for the determination of its area of casualty concentration in order adequately to prepare plans for medical support of each grouping.

c. In the *secondary attack*, the major casualty areas will be in the zones of action of the principal effort of that attack. When the secondary attack is analyzed, three deductions may be made. Battalions attacking over a broad front against the enemy's prepared position will incur few casualties because of the dispersion of troops. The casualties will be slow in getting to the aid stations because of long distances of litter-haul, and because the same fire that checks the advance of troops inhibits casualty collections. The dispersion of combat power over a wide front will probably prevent any great advance of the combat battalions, and the aid stations will advance little or not at all. This latter deduction must be correct since this is the *secondary* attack.

d. The collecting station for the main attack is located after an analysis of the plan of attack. The formation for the attack of the combat team, the line of departure, the character of enemy resistance, the size of reserves, and the probable area of employment must be considered in locating the collecting station.

e. The collecting station for the secondary attack is located in close support of its principal effort. Should the collecting platoon be split laterally, with part placed behind the principal effort and part behind the secondary effort, it would be practically impossible for either part to advance. Since the secondary attack moves forward along the axis of its principal effort which is the potential area of greatest concentration of casualties, the collecting station must be prepared to advance piecemeal in support of the principal effort. This it can hardly do if it is split. Such employment of the collecting platoon does not mean that the secondary effort goes unsupported. The collecting platoon discharges its responsibility in this care by sending litter squads to move cases from the aid stations back to ambulance loading posts, from which the casualties are transported to the clearing station. The exact location of the collecting station in the area of the principal effort will then be determined by the technical characteristics of desirable sites for collecting stations.

f. Clearing stations are located under the considerations indicated in paragraphs 99–114.

159. MEDICAL SERVICE IN ENVELOPMENTS

Medical service in envelopments conforms to the considerations just discussed. The medical service is disposed to give preferential

support to the main effort and to displace its installations when necessary toward, or along the axis of advance of, combat elements. Casualties will be heavy in those units of the main effort near the hostile organized positions and will be slow coming in until the attack reaches its objective.

a. Collecting Elements. Locations and operations are normal. Each collecting station advances in increments, as required, to maintain collection.

b. Ambulance Elements. Allotments and operations are normal. Reserve ambulances must be utilized in the later stages of the attack to evacuate the extending flank of the envelopment or to participate in a pursuit.

c. Clearing Station. The clearing station will be established with one platoon initially active. Clearing stations will leapfrog forward in support of the main effort and in its zone.

160. MEDICAL SERVICE IN PENETRATIONS

Medical service in this form of attack conforms in general to what has been given. The prepared fires along the front of the enemy position will fall more heavily in front of the troops massed for the penetration. Hostile counterattacks in the later stages of the penetration may be severe. The attack will probably progress slowly, initially, with heavy casualties, and rapidly when the position has been ruptured. Collection will be slow, initially, but more rapid as the attack progresses favorably. If the attack fails, many casualties will be captured and collection may be limited until after dark. Ambulance evacuation will be slow and difficult because of damage to the roads in both friendly and enemy areas.

a. Collecting Elements. Reserve elements must be employed in suport of the main attack to pass through the elements in operation, or to reinforce them during the conduct of the attack.

b. Ambulance Elements. Allotment and operations will be normal.

c. Clearing Elements. Location and operations are normal. The forward displacements of the clearing station may be difficult if there is extensive road damage which may require establishment in an intermediate location until a motor road has been provided.

161. MEDICAL SERVICE IN TURNING MOVEMENTS

The medical service of this form of attack departs from the normal in certain important respects because of the special tactical characteristics of the operation. The medical service subdivides

for combat by moving the bulk of its support to the rear of the turning movement to support the main attack, while the remainder stays with the secondary attack.

a. Initial Positions for Medical Units. Since the line of departure, the formation of the attack, and the boundaries between units in the main attack are not known until the commander making the principal effort has formulated his plan of attack, initial positions for medical units are chosen in rear of the infantry assembly areas. Stations may be partially established to care for casualties resulting from the march and from artillery fire in the assembly area and those occurring during the approach march. When the principal effort begins, these installations advance to battle positions.

b. Casualties in Secondary Attack. Casualties in the secondary attack will be slow coming in because of the wide unit frontages and disposition of personnel. In the principal effort they may be light if the enemy is surprised and the advance is rapid, or heavy if the advance is slow against substantial resistance.

c. Ambulance Elements. A reserve of ambulance elements is kept on hand or assembled to support a pursuit in case of hostile withdrawal.

d. Control of Widely Separated Elements. The control of widely separated elements of the medical service in turning movements is a serious problem to the respective medical commanders.

e. Collecting Elements. Distribution and operations will be normal.

f. Ambulance Elements. Allotment and operations will be normal.

g. Clearing Elements. Clearing elements, less a small reserve in support of the secondary attack, will move to the rear of the force making the turning movement, and set up a clearing station with one platoon initially active. This station will not displace until it becomes easier to move the station to the casualty than to move the casualty to the station.

162. REFERENCES

For general principles regarding offensive operations, see FM 100–5, FM 7–40, and FM 7–30.

CHAPTER 8

MEDICAL SERVICE IN DEFENSE

163. GENERAL

The general object of defensive combat is to gain time pending the development of more favorable conditions for undertaking the offensive, or to economize forces on one front for the purpose of concentrating superior forces for a decision elsewhere.

a. To achieve the first of these objects, a commander may assume the defensive pending the arrival of reinforcements; he may be thrown on the defensive by inferiority in numbers, disposition, or training; or he may take up a defensive position and invite an attack as part of a deliberate plan to win the battle by counter-offensive.

b. To achieve the second object, the defensive is usually expressed in the mission received from higher authority. This mission may be to hold a vital area pending completion of a maneuver of other forces to protect a flank, or it may be to contain an enemy force while an offensive is being conducted in some other locality.

164. ORGANIZATION OF THE DEFENSE

Our defensive doctrine contemplates the organization of a battle position to be held at all costs, and the use of covering forces to delay and disorganize the advances of the enemy and to deceive him as to the true locality of the battle position.

a. The defensive is built around a series of tactical localities, the retention of which will insure the integrity of the position. The battle position comprises a zone of resistance consisting of a number of mutually supporting defense areas disposed irregularly in width and in depth, each organized for all-around defense with trenches, fox holes, obstacles, and emplacements. Tactical unity is maintained in each defensive area.

b. A line joining the forward edge of the most advanced organized defense areas is called the *main line of resistance.* It is the line in front of which all elements of the defense must be able to concentrate their fires in order to break up a hostile attack.

c. The distance between successive elements on the battle position (on the main line of resistance) will not exceed the effective range of small-arms fire. It will be sufficiently great, however, to prevent any element from falling into the zone of dispersion of

artillery fire directed against its front. This distribution in depth diminishes the effect of hostile fire and provides for continuity in defensive fires, as well as maneuver against the enemy, even though he succeeds in penetrating the battle position.

d. The natural defensive strength of the battle position has a direct bearing upon the distribution of troops for its defense both as to frontages and depth. The all-around defense of mutually supporting vital tactical localities is of paramount importance. Positions of the front which have great defensive strength can be held with fewer men or units than can wider sectors, while the reverse is true in positions of the front which do not have this natural strength. Some positions of the front may remain unoccupied and yet be held effectively by a combination of fire and obstacles.

e. Sectors assigned to infantry units vary in width with the natural defensive strength of the position. The relative importance of these sectors, the degree of control required, and the number and strength of units available will determine this variation. Fields of fire, responsibility for defense of terrain corridors, and the necessity for control will affect the intervals which may be permitted between tactical localities.

f. The battle position is protected by outposts whose mission is to provide time for the main force to prepare itself for combat, to deceive the enemy as to the location of the battle position, to force early development by the enemy, and to provide a deeper view in the terrain over which the attacker will advance. Normally, outposts are located at sufficient distance from the main line of resistance to prevent the defending forces from being taken under observed light artillery fire.

g. The outpost line of resistance and the ground between the outpost and the battle position are organized for delaying action.

h. Whenever practicable, depending upon the size of the defending forces, an advance covering force is employed in front of the outpost. The mission of this covering force is to inflict the maximum delay on the enemy in order to permit the defender to utilize advance artillery observation; to permit the laying of mines, demolitions, and obstacles in front of the outpost and the battle position; and to deceive the enemy as to the actual location of the battle position.

i. Covering forces and outposts may similarly be employed on exposed flanks.

165. CONDUCT OF THE DEFENSE

The defense is conducted along mobile lines. Mobility is obtained by the use of covering forces, by improving facilities for movement within the battle position, by the distribution of forces in depth, and by holding out reserves capable of rapid movement. Covering forces delay, deceive, and disorganize the enemy advance; defending elements in the battle position hold their position at all costs. Reserves are able to maneuver behind the pivots thus established. Mobile and rigid defenses are combined so that possession of the areas essential to the maneuver of the defensive forces is retained. Maximum forces are maintained in reserve so that they will be available for counterattack or counteroffensive purposes. Thus the enemy is deceived as to the character of the resistance with which he is confronted.

a. The defense is conducted along aggressive lines. It must be prepared to take advantage of errors or failures on the part of the enemy. The counterattack is the decisive element of defensive action.

b. When covering forces and outposts withdraw under hostile pressure, such withdrawal is conducted as a delaying action. Every effort is made to deceive the enemy as to the exact location of the battle position. The withdrawal of the outposts must be so arranged that it will not interfere or be endangered by the fire from the battle position.

c. Artillery and other supporting arms play a most important role in the defense, but the decisive role falls to the individual soldier armed with a rifle. As the enemy comes within range, the heavy infantry weapons including those in reserve are brought into action. As the enemy draws closer, light weapons of the infantry engage in fire until the enemy is finally stopped or driven back. If the enemy succeeds in penetrating the main battle position, he is expelled by counterattacks with local reserves. If these fail or the penetration is so great as to make their use impracticable, the counterattack is made by general reserves. In this respect, counterattacks differ from counteroffensives. Counterattacks have the limited objective of restoring the battle position, while counteroffensives are planned as major offensives following defensive action and are unlimited in nature.

166. CHARACTERISTICS OF DEFENSE INFLUENCING MEDICAL SERVICE

It is not expected that all of the characteristics of defense will affect the medical service of every defensive situation. However, in general, all the following factors must be considered in the medical service of any defensive situation.

a. The fortification of a position is limited only by the time and the means available. Protection, however, should be sought more in the distribution of defenses in depth and in width, the adaptation to the terrain, and concealment from hostile observation than in the strength of construction. Medical installations in forward areas should be protected by a degree of organization of the ground comparable to that effected by combat troops. In the more elaborate field fortifications, medical installations will also be more elaborate. From this upper limit of protective construction, the amount of organization will vary downward to fox holes for company aid men and litter bearers, and medical installations improved with logs, large stones, or other materials at hand.

b. The width of sectors assigned to infantry units will determine the allotment of medical support both as concerns the regimental medical companies and the division medical battalion.

c. A more detailed reconnaissance of the terrain as permitted by the situation is mandatory since medical planning must be more thorough and more detailed in defense than in attack.

d. The defense, no less than the offense, whenever possible, makes use of the element of surprise. This will materially affect the location and degree of concealment of medical installations and the movement of medical units.

e. The conduct of the defense along mobile lines with the maintenance of large reserves will entail the concomitant maintenance of large medical reserves for the support of the counterattack or counteroffensive.

f. The distribution of forces in depth, as well as the possibility of enemy penetrations of the position without actually disrupting it, requires that medical installations be located, in general, farther toward the rear than in the attack.

g. Since the defensive position is normally covered by outposts to the front and, if necessary, toward the flanks of the main line of resistance, the medical service of outposts or covering forces is an important item in the medical service of the defense, particularly when outposts are expected to resist.

167. MEDICAL DOCTRINES IN DEFENSE
(fig. 11)

Medical doctrines in defense may be summarized as follows:

a. Medical reserves must be held out in proportion to the local and general reserve.

b. Collecting elements may be split laterally since they will not generally be required to displace as rapidly as in the attack. This

lateral displacement must be coordinated with the tactical plan in order to obviate a failure in medical service if a major counterattack or counteroffensive should be planned.

c. Normally the division clearing station is established and kept mobile by frequent evacuation by the next higher command in order that it may be moved rapidly as the tactical situation may dictate.

d. Medical dispositions in defense are based on the assumption that a particular position will be maintained. The dispositions to be made in case of an unsuccessful defense and consequent withdrawal will be discussed in chapter 9.

e. The evacuation lag usually reaches considerable proportions in defensive operations.

f. Medical installations may be located farther to the rear in the defense than in the attack.

168. REGIMENTAL MEDICAL COMPANY IN DEFENSE

Except when counterattacking, the infantry in defense is relatively fixed in position. Both local and general reserves, however, may be moved from time to time. Units occupying positions and engaging in the fire fight indulge in little movement. This permits a greater degree of initial organization of the medical service than in the attack. Casualties will occur in well-defined areas, the locations of which are known in advance.

a. Battalion Medical Platoon. The battalion medical platoons are attached to their respective battalions. The battle position consists essentially of organized defense areas, each being occupied and defended by an infantry element, usually a battalion. When occupied by a battalion, this area is designated as a battalion defense area, and the battalion medical platoon operates within that area.

(1) *Company aid men.* The allotment of company aid men depends upon the situation. The organization of the defense area varies with the terrain and other factors as mentioned previously. It consists usually of subordinate subdivided defense areas, each normally occupied by a rifle company. These areas are known as company defense areas. They are usually further subdivided into platoon defense areas; therefore the routine allotment of one company aid man to each platoon in defense cannot be justified. The organization of any particular platoon defense area may be such that more than one aid man will be required. On the other hand, the heavy weapons

company may be so disposed throughout the various defense areas that the company aid man for this element cannot effectively be employed. Medical service can be provided for this unit by the aid men of the rifle elements in the same locality. Each defense area must be reconnoitered and studied by the responsible surgeon with a view to the disposition of the company aid men to the best advantage.

(2) *Litter bearers.* The same considerations affecting the allotment of company aid men will also determine the disposition of litter bearers. The probable areas of casualty density, the garrisons of the several defense areas, the distances from the aid station, the characteristics of the terrain, and the requirements of the local reserve must all be considered. Litter squads take their assigned positions and organize them for their own protection during periods of inactivity. Within the time and means available, they also increase the protection of their litter routes.

(3) *Aid stations.* To avoid being involved in minor penetrations of the battle position, the battalion aid station in defense is normally located somewhat farther to the rear than in the attack. However, the terrain and other considerations may require that the aid station be located well forward. The exact site is determined by the individual characteristics of the battalion defense area. For those battalions occupying defense areas, the aid stations are completely established and the degree of protection offered by the terrain is increased as much as possible within the time and means available. Aid stations of reserve battalions are not established but initially maintain the same degree of mobility as the troops they serve until such time as these reserves may be committed.

b. Collecting Platoons. The location of the collecting station depends upon the depth and the arrangement of the battle position as well as the terrain. Normally it should be located in the rear of the regimental reserve in order to avoid being caught in minor penetrations of the position. Usually this will be between 1500 and 3500 yards in the rear of the main line of resistance. The degree to which a collecting station is established in the defense is proportionate to the organization of the position and the degree of deployment of combat elements for the defense. As the position to its front is thoroughly organized and occupied, the station may be completely established and protected. Collecting units support-

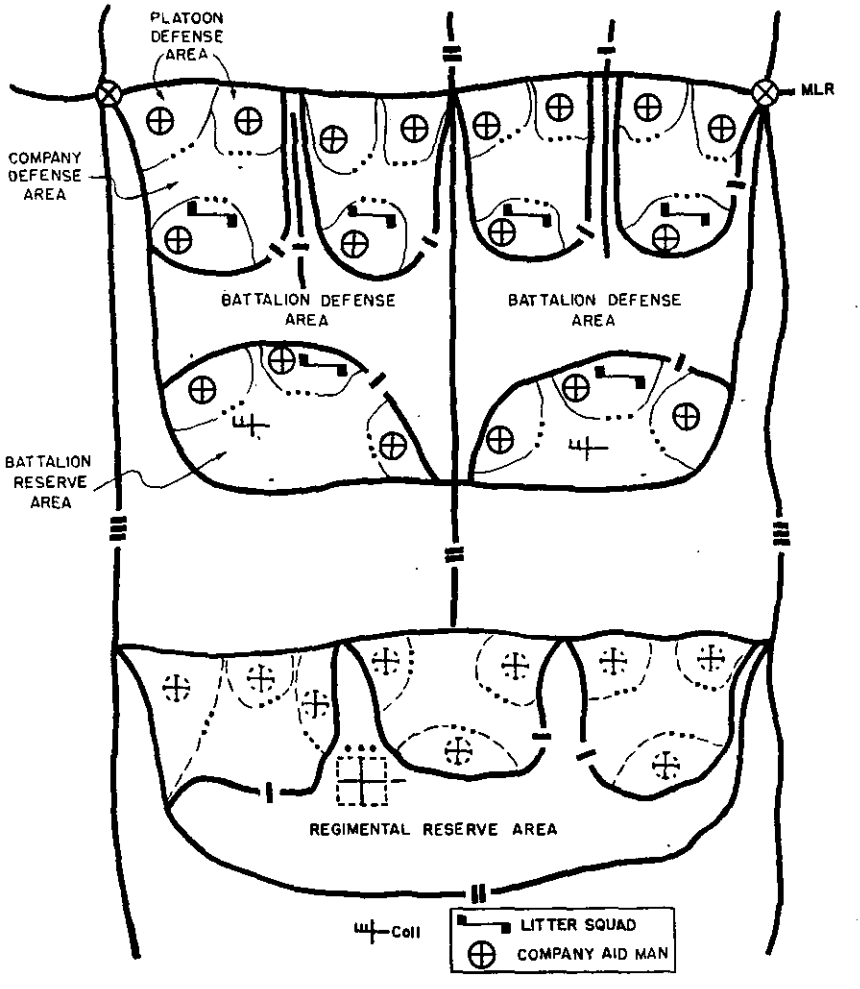


Figure 11. Disposition of the regimental medical company in the defense (schematic).

ing mobile reserves, however, must be maintained in proportion to the strength of this reserve. When the evacuation of collecting stations is irregular due to enemy interference, the facilities for holding casualties in the station must be augmented. Contact with aid stations is established early and every means is employed to effectively maintain such contact. Whenever possible, wire communications should be established between the collecting station and the command post of the infantry regiment it supports.

(1) *Litter-bearer section.* The commander of the litter-bearer section must make a thorough reconnaissance of litter-bearer routes and select those offering the greatest

advantages in protection and facility of evacuation. Roads may be improved to increase protection and also to facilitate the use of vehicles for evacuation. An estimate of the situation by this commander will indicate the proper allocation of litter-bearer squads to the various aid stations. Provision must be made for the support of the local reserves in the counterattack.

(2) *Ambulance section.* The commander of the ambulance section must make a reconnaissance for the use of the vehicles in the evacuation of the battalion aid stations. Maximum use must be made of vehicle evacuation during the hours of darkness, necessitating complete familiarization with the terrain and the locations of all aid stations. During daylight hours it will seldom be feasible to utilize vehicle evacuation as a result of enemy artillery fire. However, whenever possible, daylight evacuation is indicated in preference to evacuation after dark.

(3) *Medical service of the mobile regimental reserve.* Normally one battalion of the infantry regiment will constitute the regimental reserve which is kept mobile for employment in rapid counterattacks for the restoration of the battle position. This battalion is usually located in the regimental reserve area, the position of which may be centrally located or deployed toward either flank of the regimental defense area. The battalion medical platoon is attached to this battalion and maintains a state of mobility equal to that of its battalion. While in reserve, the platoon will provide such medical service as may be necessary. On commitment of the infantry battalion to combat, the elements of the medical platoon are committed. The regimental collecting company must maintain contact with the reserve battalion medical platoon at all times since the reserve may be committed rapidly on short notice.

c. Medical Service of the Division Reserve. Ordinarily the division will maintain a reserve composed of one infantry regiment. Medical service of this reserve will compare in detail to the medical service of the regimental reserve previously discussed.

169. DIVISION MEDICAL SERVICE IN DEFENSE

In general, because of fewer casualties, better opportunity for planning, more time for establishing installations, and less movement of combat elements, the medical service of the defense is less difficult than that of other operations. However, difficulties may

be encountered as a result of hostile artillery and air action in rear areas. The attacker ordinarily has superiority in artillery and air and directs much of his effort toward the disorganization of communications in rear of the battle position. Movement of casualties is interrupted or even denied during daylight hours.

a. Ambulance Company. Hostile efforts to disrupt communications may preclude the employment of ambulance evacuation except during darkness. Ambulance routes must be selected with this eventuality in mind. Ambulance loading posts and ambulance relay posts must be chosen to provide the maximum protection possible. If regular evacuation of collecting stations is impossible to maintain, such evacuation may be undertaken by convoys moving rapidly in daylight, during lulls in battle, or under cover of darkness.

b. Clearing Company. The operation of clearing in the defense follows a normal pattern. Because of the relative compactness of a defensive position, rarely will more than one clearing station be required for a division. However, depending upon the extent of a division defense area, two or more stations may be required to clear adequately all casualties in the forward areas. To escape as much hostile artillery fire as possible and to avoid being caught in deep envelopments of the flanks of a position, central locations well to the rear should be established. For protection against hostile air action and the maintenance of security by denying the enemy knowledge of tactical dispositions through locations of medical installations, concealment of the clearing station may be necessary. As from collecting stations, evacuation from a clearing station may be denied over considerable periods. Such eventualities must be considered in the planning for the reinforcement of clearing elements.

170. MEDICAL SERVICE OF COUNTEROFFENSIVE

This operation which is offensive in character, utilizes the defensive as a temporary measure primarily to assume the counteroffensive. The defensive phase may consist of one or more delaying actions with the mobile defense of a position.

a. The Defensive Phase. The operation of medical units in the defensive phase is the same as has been discussed in previous paragraphs. Since large general reserves are maintained in this type of operation, large medical reserves are equally held mobile to support the counteroffensive phase. Time made available during the defensive phase will afford the medical service sufficient time to plan and coordinate all of the activities for the counteroffensive phase.

b. The Counteroffensive Phase. When the counteroffensive is assumed, medical installations and dispositions are adjusted to support the type of offense planned by the commander. After the initiation of the counteroffensive, the medical service follows those principles established in the attack.

171. MEDICAL SERVICE OF OUTPOSTS AND COVERING FORCES

The principles of the medical service of outposts and covering forces are identical to those discussed in chapter 5.

172. REFERENCES

For further details regarding defense see FM 7–30, FM 100–5, and FM 7–40.

CHAPTER 9

MEDICAL SERVICE IN RETROGRADE MOVEMENTS

Section I. GENERAL CONSIDERATIONS

173. GENERAL

A retrograde movement is any movement of a command to the rear, or away from the enemy. It may be forced by the enemy or may be made voluntarily. These movements are classified as a withdrawal from action, a retirement, or a delaying action.

174. PURPOSE

Retrograde movements are made to accomplish one or more of the following purposes:

a. To disengage from battle.

b. To avoid battle in a disadvantageous situation.

c. To draw the enemy into a situation unfavorable to him.

d. To gain time without fighting a decisive engagement.

e. To conform to the movement of other troops.

f. To permit the employment of a portion of the command elsewhere.

175. CONDUCT OF RETROGRADE MOVEMENTS

a. The conduct of retrograde movements includes the maximum use of mine fields, demolitions, obstacles, and contaminations in order to delay hostile pursuit and to assist in flank protection. Demolitions have a particular application in the destruction of abandoned matériel. Particular attention is paid to the use of mines on likely avenues of approach of mechanized forces.

b. Combat aviation is employed against hostile aviation and to delay the hostile advance or pursuit by harassing and interdicting hostile forces in critical localities. Its action must be closely coordinated with that of the ground forces.

c. Maximum advantage must be taken of available motor transportation to expedite the rapid movement to the rear of units which have withdrawn from action. Security forces normally are composed of highly mobile units.

d. Enemy ground and air forces may be expected to follow up relentlessly both day and night any retrograde movement and to strike withdrawing columns from any direction. This situation

necessitates continuous ground and air reconnaissance to both flanks and rear, rapid movement under cover of darkness, strong antiaircraft defense, and continuous all-around antitank defense, particularly on exposed flanks. Mobile reserves, particularly armored and antitank units, are held out in order to counteract wide and rapid movements to the flanks and rear or penetration through the friendly front, and to counter any attacks by airborne troops.

176. GENERAL CONSIDERATIONS OF MEDICAL SERVICE IN RETROGRADE MOVEMENTS

The medical problems involved in retrograde movements may vary between wide limits depending upon the type of operation, the enemy reaction, and the situation in general. For example, a daylight withdrawal is a very different operation from a night withdrawal or retirement after contact has been broken. It is impossible to establish firmly rules that are equally applicable to all types of retrograde movements under all conditions, but there are certain factors that must be considered in medical planning in any retrograde movement regardless of type.

a. Time Factor. The number of casualties removed from any battlefield is dependent upon the *time and means* available. In stabilized situations and in the advance, time is important only as it affects the physical well-being of the injured, that is, it is not vital to the eventual accomplishment of the task. In retrograde movements, time takes on increased importance. As available time decreases, the surgeon must evaluate his capacity to collect, treat, and evacuate all casualties. He must inform the commander early, where necessary, that either means for evacuation must be augmented or casualties must be abandoned.

b. Casualty Rate. Depending on the type of operation, the size of the retiring force, the enemy reaction, the terrain, and the weather, the casualty rate may be very heavy or negligible. So long as an aggressive enemy maintains contact with and denies freedom of action to the forces making the retrograde movement, the operation is the most costly in casualties of all military operations. These heavy losses must always be considered in medical planning, since movement almost always will have to be made under unrestrained hostile fire. In the attack, routes and rates of movement are adjusted to minimize this danger and the fire of the attacker will greatly decrease the effectiveness of the fire of the defender. A retiring force therefore must retain a comparable degree of initiative or the fire of the attacker will be directed with great effect and will result in extensive casualties.

c. *Evacuation.*

(1) Evacuation in retrograde movements is more difficult than in any other type of operation since routes of evacuation ordinarily will be congested with troops and matériel of the retiring force. Rearward movement of combat elements uncovers successive levels of medical service which precipitates a crisis and precludes their operation. Communication and control are difficult and may be readily disrupted by the enemy regardless of the care taken in the preparation of plans.

(2) The necessary measures taken to cope with the factors impeding evacuation during retrograde movements lie beyond the scope of medical authority. If evacuation is to be accomplished successfully, positive action must be taken by the commander to facilitate the task. This task entails the inclusion of ambulances on the list of priorities for movement, provision for the transportation of slightly wounded to the rear in cargo vehicles, and clear-cut directives to subordinate commanders defining their responsibilities in the collection and evacuation of their casualties.

d. *Augmentation.*

(1) Since in no other maneuver is time such a critical factor in medical service as it is in a retrograde movement, there must be an augmentation of medical support. Ordinarily it is feasible to reinforce the medical elements in forward areas from the division medical units not committed. However, there is another important consideration. Tactical doctrine dictates that as few troops maintain contact with the enemy as are necessary to allow the main body freedom of action. Any reinforcement of troops in forward areas including medical tends to defeat this end, increases the number of casualties, and adds to the congestion and confusion.

(2) The number of medical troops required in forward areas is in direct proportion to the amount of assistance in medical service that can be rendered by other services and the combat elements. The procedure of permitting troops of the arms and other services to fulfill their combat functions without handicapping them with the care of their casualties must be preserved. It must be kept in mind, however, that troops moving rapidly to the rear are not engaged in combat and are able to assist in the removal of their casualties. It is under such circumstances that time is most critical. When troops are forced

to stop and engage the pursuing enemy, movement is suspended and time becomes less critical, with the result that the medical service requires less assistance. A judicious application of such technique in a retrograde movement will result in evacuation of all casualties without interfering with combat elements in their primary mission and without great reinforcement of the medical elements in forward areas.

e. Abandonment of Casualties. Casualties that cannot be evacuated must be abandoned. There is no middle course. Medical service is not alone in the responsibility of preventing the capture of casualties but shares such responsibility with the commander. The decision to abandon the wounded to the enemy cannot be passed silently to the medical service by default. The commander must make this decision.

f. Location of Medical Installations. Locations for successive positions from front to rear must be planned in advance for every medical installation involved in the retrograde movement. Since the general direction of movement is toward medical installations (i.e., to the rear), initial locations must be placed farther to the rear than in other types of operations. In any event, the next rearward location must be occupied by a medical unit ready to function before the forward location is abandoned.

g. Establishment of Medical Installations. Since time is such an important factor in retrograde movements, every effort must be made by medical units at all levels to evacuate all casualties promptly and regularly in order that it will not become necessary to establish elaborate installations. Special care and discrimination in the sorting of casualties with respect to the type of transportation required will facilitate evacuation and tend to obviate the necessity for establishment of complete medical installations.

h. Displacement. Frequency of displacement will be determined by the rate of movement of the force, the terrain, and considerations of security. Medical installations must be displaced before they are in danger of becoming involved in the actions of security forces. Such displacements can be executed either piecemeal within units or by leapfrogging complete units.

i. Medical Service of Security Detachments. More so than in the advance, it is very important that the main body does not become involved in combat. For this reason missions of security detachments will require them to engage in serious combat if the enemy becomes too aggressive. This will necessitate planning for medical service accordingly.

j. Future Operations. Operations to be undertaken at the conclusion of the retrograde movement must be considered when planning the medical service for such movement, especially in preparation for the later phases of the movement.

177. MEDICAL DOCTRINE IN RETROGRADE MOVEMENT

In general, the medical doctrines as discussed in previous chapters apply to the medical service of retrograde movements; however, certain characteristics, as outlined in paragraph 176, tend to modify these fundamental doctrines.

a. Installations of the medical service of the division are progressively displaced to the rear in order to maintain a normal pattern of evacuation (i.e., battalion medical platoon elements forward of collecting elements, collecting elements forward of clearing elements).

b. The operation and movement of elements of the medical battalion will normally be decentralized to subordinate commanders. Control is maintained by designating the initial and final positions and the routes of withdrawal.

c. Personnel and ambulances from the division medical battalion, in many cases, will be required to reinforce unit medical service.

d. Timely evacuation of the clearing station by higher command is indispensable in maintaining mobility.

e. Wounded must be sorted carefully according to transportation requirements.

f. Litter cases must have priority in evacuation.

g. Walking wounded may be moved to the rear by nonmedical vehicles or required to walk.

h. The decision to abandon the wounded is a command decision.

i. Medical personnel and supplies must be left with the wounded abandoned at any medical installation.

Section II. WITHDRAWAL FROM ACTION

178. GENERAL

A withdrawal from action is the operation of breaking off combat with a hostile force for the purpose of regaining or preserving freedom of action of the main force. Contact with the enemy must be maintained, however, by reconnaissance and security forces.

a. A daylight withdrawal usually involves such heavy losses and so great a degree of disorganization that it is preferable for large units to hold out at all costs until nightfall and effect the withdrawal under the cover of darkness. Generally only rearward

elements can be withdrawn successfully by day. Small mobile forces may execute daylight withdrawals.

b. The heavier the previous fighting and the closer the engagement with the enemy, the more difficult will be the withdrawal.

c. This operation is facilitated by concealment of troop dispositions and movements by bad weather, by rapidity of movement, by the careful preparation of plans, and by counterattacks. Successful counterattacks create conditions favorable to the withdrawal of hard pressed or closely engaged units. Because of their mobility and fire power, mechanized units are especially suited for counterattacks.

179. CONDUCT OF THE WITHDRAWAL FROM ACTION

In a withdrawal a rearward position is designated on which troops will prepare for a renewal of resistance or assemble for further retrograde movement. The rearward position is selected at such a distance that the enemy will be compelled to regroup forces, displace artillery, and renew preparations for the attack. Special provisions are made for holding road centers that control lines of communications to the rear, and for features of the terrain that afford extended observation over the areas in rear of the battlefront.

a. In a daylight withdrawal, in addition to designating the rearward position, suitable covering positions are selected. These positions are occupied by mobile covering forces, strong in fire power, to cover the withdrawal of the main body of troops engaged. Artillery, engineers, antiaircraft, antitank, and chemical troops, as required, form a part of this covering force.

b. The rearward position and zones or routes of withdrawal of the units of the command must be designated. The strength and conduct of the covering forces, the hour and priority of withdrawal of units, the establishment of essential communications, and the necessary steps to clear the routes for the movement of troops are included in plans. Complete destruction of supplies and matériel, energetic measures for traffic control, construction of necessary bridges, and the preparation for the execution of demolitions on the routes of withdrawal are of importance. Every measure is taken to insure that no abandoned matériel or supplies are left in a condition that will permit repair and use against the withdrawing force.

c. At night, the withdrawal of the greater part of the forces engaged commences shortly after nightfall. Small detachments are left in immediate contact with the enemy. These detachments, constituted from troops nearest the enemy, screen the withdrawal

by simulating the normal activity of a fully garrisoned position with fire from different positions, and by the use of pyrotechnics. The withdrawal of front line units is executed on a broad front. Troops withdraw initially straight to the rear and then move to designated assembly areas where small units are re-formed and preparations are made for further rearward movement and assembly into larger units.

d. Orders normally indicate the exact time of withdrawal of troop units, the routes by which they will move to the rear, and the assembly areas of the major elements. Whenever practicable, foot elements should be furnished with motor transportation for movement to the rear, especially when the distance of the retrograde movement is great.

180. CONSIDERATIONS AFFECTING MEDICAL SERVICE

These considerations are identical as those outlined in paragraph 176, section I.

181. REGIMENTAL MEDICAL COMPANY

Those doctrinal principles outlined in section I must be met in the operations of the regimental medical company. Since time ordinarily is an adverse factor and casualties may be heavy, medical support to covering forces as well as the main body must be provided.

a. Battalion Medical Platoon. Personnel of the battalion medical platoons must be attached to the local security force of the battalion remaining in position to cover the withdrawal. In the initial stages of the withdrawal, between the time of breaking contact and the formation of march columns, the general principles of unit medical service are those of the approach march. The single great difference lies in the influences of the time factor. The operations of recovery of casualties from the field and of collection must be combined. Aid stations cannot be established during the movement. Wounded are given medical treatment and taken directly to the nearest axis of evacuation (routes for the rearward movement).

(1) In daylight withdrawals especially, it will be absolutely necessary to reinforce the battalion medical platoons. The dispersion of elements due to the extended order with a probable heavy casualty rate and the lack of time make it impossible for the medical platoons to accomplish their mission without assistance. These reinforcements can be had from two sources. Litter-bearer elements of the collecting platoon may be employed if they

can be spared from other pressing requirements. Since reinforcements from medical units may prove inadequate in the initial stages of any withdrawal, litters should be issued to the infantry personnel who must assist in the evacuation of their own casualties. This action on the part of infantry normally will not interfere with their combat functions since, during movement, they are not engaged in a fire fight. When movement must be suspended for this purpose, their combat function becomes paramount.

(2) When march columns are formed, unit medical service becomes that of the march.

b. Collecting Platoons. If collecting stations are established, they should be located to the rear of the battalion assembly areas. Any stations operating forward of these areas must be closed before the initiation of the withdrawal and moved to the rear at the earliest possible moment.

(1) If no collecting stations are established, casualties must be transferred to division ambulances at predesignated positions usually in the vicinity of the battalion assembly areas. Under these circumstances, personnel of the collecting stations may be utilized to reinforce the medical service of the more forward elements.

(2) Ambulances of the platoons are operated on all practicable axes of evacuation during the initial stages. Ambulance loading posts are in motion, keeping generally abreast of the withdrawing combat elements. Wounded are brought to these axes, loaded into ambulances, and evacuated. *These moving ambulance loading posts are almost indispensable in the early stages of a withdrawal from action. If, however, it is impossible to operate them, casualties must be carried to the assembly areas. The majority of walking wounded will require assistance because they will be unable to maintain the pace of the able-bodied.*

182. DIVISION MEDICAL BATTALION

a. Ambulances of the division may be attached to covering forces. These will normally evacuate casualties from the covering elements direct to the clearing station. In addition, division ambulances will normally evacuate casualties from the infantry battalion assembly areas or predesignated positions to the clearing stations.

b. During the initial stages of a withdrawal, the clearing stations already in operation will serve the division. Every effort must be made to have it evacuated promptly and kept relatively free of casualties by supporting medical units of higher commands.

183. MEDICAL DETACHMENTS WITH SEPARATE BATTALIONS

These usually operate in a normal manner. Suitable augmentation of the medical detachments, as may be required, are made to the elements of artillery, engineers, and other combat elements which are a part of the covering force.

184. MEDICAL SERVICE OF REARWARD POSITIONS

The medical service established for the rearward position of the withdrawing force will depend upon the plan of the commander. If resistance is to be renewed on this position, medical service is reestablished for the division. If, however, this position is merely an assembly position from which retirement is to begin, medical service will be planned for the retirement as outlined in a subsequent section.

Section III. RETIREMENT

185. GENERAL

Retirement is a retrograde movement in which a force seeks to regain freedom of action, the rearward movement being a part of a well-defined plan which has for its purpose the refusal of decisive combat under the existing conditions. A retirement may be made in one stage or in several stages depending upon the distance involved. When a withdrawal from action precedes the retirement, actual retirement begins when march columns are formed.

186. CONDUCT OF RETIREMENT

Road march formations usually are taken when the zone of effective hostile light artillery fire is passed. Formations are modified to meet existing conditions of terrain, visibility, intensity of enemy fire, activity of enemy combat aviation, and tactical requirements for control and rapidity of movement.

a. During the initial phase of retirement made from contact, the division generally assigns specific routes to the trains, the artillery, and other auxiliary troops and indicates when the routes will be cleared for the troops still in action. Normally a zone of action is assigned to each combat element comparable to an infantry regiment in size.

b. As the distance from the enemy increases, small columns are consolidated into major columns. During the march to the rear, constant effort is made to increase the distance from the enemy. This necessitates forced marches night or day, as well as effective security measures to protect the rear and the flanks and to delay the enemy.

c. The formation and number of columns to be employed during retirement depend upon the number of roads available and hostile interference. Generally, movement of major elements of a deployed force to the rear is simultaneous with major elements abreast. However, hostile threats to a flank may require one fraction of the force to hold in position until the movement of the others is well under way. Restricted road nets or defiles in the zone of movement may necessitate withdrawals of subordinate elements successively. If a flank is threatened during the retirement, the adoption of an echelon formation toward the threatened flank may be appropriate.

d. Routes of march are designated for the elements of the retiring force. Measures are taken to prevent demolitions, obstacles, and mine fields from endangering friendly forces. However, means must be instituted to insure execution of such demolitions at the proper time. Routes of march may also require improvement in order adequately to accommodate forces in the movement.

187. CONSIDERATIONS AFFECTING MEDICAL SERVICE

a. In retirements following a withdrawal, the most important considerations are to place distance, obstacles, and security forces between the main body and the enemy, and to regain freedom of action for the main body. Trains are put in march without delay, if necessary, under escort, and sent to the rear to a selected bivouac area. During retirement, ammunition, ration, and fuel dumps are established for the requirements of the retiring troops. Medical service will have to be provided in order to meet the requirements of all elements executing the movement.

b. When the retirement is short, if enemy pressure permits and the covering force for the withdrawal is sufficient for the protection of the movement, the medical operation is that of a withdrawal from action. When the retirement is long and a rear guard is employed, medical service will be required for march columns in the main body, for the action of the rear guard, and for the trains in the early movement.

188. MEDICAL OPERATIONS

a. Medical units not required to support the rear guard action or to perform either normal or forced march collection will move

with the preliminary force ahead of the main body to the bivouac area or the new position, whichever is appropriate.

b. Ambulance and collecting elements march between the main body and the rear guard prepared to support the latter's action. The support of the rear guard action is similar to that of delaying action (sec. IV below).

c. Collecting stations will be established when required and displaced piecemeal. If authority for ambulance movements to the rear cannot be secured, additional ambulances will be required to transport the wounded until they can be moved to the clearing station at the next halt.

d. Medical support of flank guards conforms in general to that indicated for rear guards. The medical service of all security detachments depends upon the nature of their employment which may take the form of defense, delaying action, or offense. The medical support given such security detachments must be generous and must conform to the type of operation employed.

Section IV. DELAYING ACTION

189. GENERAL

a. Recourse to delaying action implies either lack of readiness for battle or hostile superiority of force. Its purpose is to gain time while avoiding decisive action. Delaying action may be used in the opening phase of battle in order to gain time for the unified employment of the entire command. It also may be called for in later phases pending completion of preparations for counter-offensive action. It finds especial application in the operations of covering forces and other security detachments. In offensive operations, delaying action by a portion of the command to delay the arrival of hostile reinforcements may be of decisive importance.

b. Delay of an advancing enemy may be accomplished by offensive action, by defensive action in one position, by delaying action in successive positions, or by any combination of these methods.

190. CONDUCT OF DELAYING ACTION

a. The conduct of delaying the enemy by offensive action, or defensive action in one position, conforms in doctrine with that already discussed in previous chapters. The latter type, defensive action in one position, differs from the defense in that the intention of the commander is to remain in position only for a limited time; units occupy relatively wide fronts; and the battle position is not usually as well organized as in sustained defense.

b. Delaying action in successive positions is based on the doctrines of limited resistance on a position with the intention of renewing this resistance on successive positions if necessary. The defense on each position, in order to be effective, must force the enemy to early deployment and into time-consuming preparations for battle. Combat normally is broken off in each position before troops become closely engaged. The situation may, however, require a strong resistance on some positions or even counterattacks in order to accomplish the delaying mission.

c. Delaying measures are continued between positions in order to gain time for organizing resistance on the next position. Because of the retrograde nature and extensive distances covered by such combat delaying actions, they are executed most effectively by troops possessing a high degree of mobility.

d. In general, contact is made as far forward as possible and continuous light resistance is offered in order to compel the enemy to deploy his whole force and to consume a maximum amount of time. No more ground than necessary is given up. The ability is retained to execute planned withdrawals under conditions that permit orderly movement to the rear.

191. MEDICAL OPERATIONS

a. While in position, unit medical service operates in a normal fashion; however, the extended fronts may require subdivision of aid stations.

b. Collecting units are assigned to sectors corresponding with the units which they support. When in position, collection in general is a normal operation. The location of collecting stations will depend upon the terrain, the width of the sector, and the distance between positions. Extended fronts, the defensive nature of the operations, and the intention of withdrawing indicate locations well to the rear. Ambulance evacuation must be used to the limit of practicability.

c. Division ambulance operations are normal in general. It may be necessary to attach some ambulances to front line units occupying isolated positions.

d. Operations are normal in general. Clearing stations will be located well to the rear and, when practicable, placed so that each can support two successive positions without displacement.

192. REFERENCES

For general principles governing the organization and conduct of retrograde movements, see FM 100–5, FM 7–40, FM 5–15, and FM's of the 5–20 series.

CHAPTER 10

MEDICAL SERVICE IN SPECIAL OPERATIONS

Section I. ATTACK OF RIVER LINES

193. GENERAL

a. In an operation involving crossing of a river, the actual crossing is a means, not the end, sought. The immediate purpose is to get across quickly and economically and to establish a bridgehead which will protect crossing for the remainder of the command.

b. Following the advance to the river line (Preliminary Phase), in the establishment of a bridgehead by a large force, there are three successive objectives on the enemy side of the river; first, a position which will eliminate effective direct small-arms fire from the crossing front (Phase I); second, a position which will eliminate ground-observed artillery fire from the crossing site(s) (Phase II); and third, a position which will eliminate all artillery fire from the crossing site(s) and will provide the necessary maneuver space for the command on the enemy side of the river (Phase III).

c. Attainment of the first objective facilitates the crossing of succeeding troops in assault boats, by foot bridges, and by troop and vehicle ferries. Attainment of the second objective, combined with local air superiority, normally will make possible the construction of pontoon bridges to cross the bulk of heavier loads. Attainment of the third objective, combined with local air superiority, gives uninterrupted use of crossing sites over the river, permits the protected maneuver of troops in furtherance of their mission, and facilitates the accumulation of supplies on the enemy side of the river.

194. CONDUCT OF OPERATIONS

In general the attacker operates on a wide front with several determined attacks at potential crossing sites. Secrecy of preparation and deception of the enemy as to the time and place of the main crossing are essential. Feints, deceptive use of chemical smokes, and/or demonstrations are employed to deceive the enemy.

a. Tactical groups are assigned to each crossing site and are given instructions regarding time of crossing, objectives, zones of action, and type and location of bridges to be constructed. Other troops may also be assigned to make feints or demonstrations at points other than the main crossing sites in order to draw the

enemy away from the main crossing fronts. A reserve is maintained to exploit the most successful crossing.

b. When a tactical group is assigned to a crossing front, routes of approach, final assembly areas, time of crossing, and actual crossing points and routes thereto are designated.

c. Normally all supporting troops go into position in final assembly areas under cover of darkness on the night of the crossing; leading assault units move to these areas where they are met by engineer troops with assault boats, foot bridges, or other crossing means.

d. Departures from final assembly areas are timed to permit leading units to cross simultaneously on a broad front but, once these units leave final assembly areas, they do not halt and no attempt is made to maintain alinement between boats. Normally there is no firing from the boats when the crossing is made under cover of darkness.

e. The first assault waves on each front, led by engineers, carry their boats from the final assembly areas to the water's edge, and launch them on a broad front. Lateral movements and the massing of troops at the river bank are avoided. Measures are taken to regulate traffic and to suppress noise during the movement to the river.

f. Engineer crews operate and control crossing craft. Each craft starts across as soon as loaded and moves as rapidly as possible and by the most direct route to the opposite bank. On reaching the far bank (enemy shore), troops disembark rapidly and deploy to continue the attack to the initial objective. Engineer crews return the craft immediately to the near bank for succeeding waves.

g. Succeeding waves of combat troops cross the river either by boats or by newly constructed bridges. On the establishment of the bridgehead (Phase III), the taking of the third objective, larger bridges are constructed permitting the crossing of heavy equipment and supporting elements.

195. CONSIDERATIONS INFLUENCING THE MEDICAL SERVICE

a. Medical service in the attack of river lines, while conforming in general to medical doctrines of offensive operations, presents certain special problems incident to ferrying and bridging operations. The medical service must concern itself with the support of the combat troops during the advance to the river line (Preliminary Phase), during the passage of the river and the capture of the initial objective (Phase I), during the operations incident

to the seizure of the intermediate objective (Phase II), and during the attack to gain the bridgehead (Phase III).

b. The medical problem is further complicated by the necessity for supporting feints and demonstrations, if any, and the support of forces involved at the main crossing sites which may be located some distance apart. Rigid economy in the commitment of medical elements is practiced to insure adequate support for the successful crossing, usually the principal casualty concentration area of the operation.

c. Collection and evacuation are unfavorably influenced by darkness and confusion if the attack is carried out at night. Many wounded will be overlooked by litter bearers during the initial attack because of darkness, and such casualties will have to wait until daylight enables litter bearers to locate and remove them to an aid station.

196. MEDICAL SERVICE, PRELIMINARY PHASE

There are normally few casualties during this phase unless the movement is discovered by the enemy. Casualties occurring in march columns are handled in a normal manner. March collecting posts may or may not be set up along the main approaches to the crossing sites for the care of the sick and injured.

197. MEDICAL SERVICE, PHASE I

At the end of the Preliminary Phase, battalion aid, collecting, and clearing stations are established in normal support in the areas of each crossing. Litter bearers of the collecting platoon of the regimental medical company will be in readiness near each crossing site. Ambulances are advanced as near the river as feasible. Locations for ambulances require defilade from direct fire.

a. Battalion medical platoons are attached to their respective battalions. Company aid men are assigned to their respective companies and cross with the assault elements of the battalion. Litter bearers of the battalion medical platoons normally cross in succeeding waves. Aid stations are established on the far bank (enemy) as soon as the situation permits. Casualties initially are placed on returning craft and returned to the near bank. After the establishment of the battalion aid station on the far bank, casualties are held at the aid station until they can be sent back on returning craft.

b. Litter bearers of the collecting platoon of the regimental medical company remove the casualties from returning craft and

carry them to ambulances or to the collecting station where they are prepared for further movement to the clearing station.

c. At the end of Phase I, or the elimination of small-arms fire from the crossing site, collecting elements of the regimental medical company cross to the far bank, collect casualties from the advancing aid stations, and remove them to craft for further movement to the rear. Collecting stations will be advanced to the near shore of the river as soon as hostile fire permits.

198. MEDICAL SERVICE, PHASE II

a. During this phase, collecting elements continue collection of casualties from advancing aid stations and remove them to craft returning to the near shore. Collecting stations are ferried over or cross by bridge, as circumstances permit, and are established on the far bank. Casualties continue to be returned to the near bank, where they are loaded in ambulances and sent to the clearing station. The clearing station may displace forward nearer the river during this phase.

b. It is desirable to advance ambulances and clearing elements across the river as soon as conditions permit. A priority is sought early for movement of these elements over the bridges. When bridging is unduly delayed, movement of these elements by craft may be authorized.

199. MEDICAL SERVICE, PHASE III

During this final phase, medical units are pushed across the river as rapidly as possible and resume normal operating conditions on the far bank. Clearing stations may be called on to care for numbers of casualties destined for movement out of the division area, pending the establishment of ample bridge facilities and the resumption of normal evacuation by higher command.

Section II. DEFENSE AGAINST RIVER CROSSINGS

200. GENERAL

An unfordable river may be employed as an obstacle in front of a defensive or delaying position or as an aid to defensive-offensive action which seeks to strike the enemy while his forces are astride the river. The enemy, however, must be forced to make a direct attack or a river line loses much of its value as an obstacle. If successful counteroffensive action is to be followed by exploitation, the river line then becomes an obstacle to our own troops. In any defense of a river line, covering forces remain on the enemy

side of the river and maintain contact with the enemy, delay his advance, and determine his assembly positions and probable crossing places. When forced to retire, these advanced elements withdraw across the river. Measures are taken to destroy crossings after the last elements have crossed or at such time as may be necessary to prevent such crossings from being seized by the enemy.

201. CONDUCT OF THE DEFENSIVE

a. When river lines are defended by defensive-offensive action, the mass of forces normally are held in readiness at such distance to the rear that they can intervene promptly at any point where a crossing in force may be attempted. The river line is then held by relatively weak detachments. Stronger detachments with local reserves are posted at the most probable points of crossing.

b. Advance detachments are organized and operate in accordance with those doctrines governing outposts. Their mission is to force the enemy to disclose the full power of supporting fires, to discover hostile crossings, and to prevent hostile troops from establishing a bridgehead before the arrival and attack by general reserves.

c. In a retrograde movement when a river line is to be held as a defensive or delaying position, the retiring columns cross at the available bridges which are not under hostile artillery fire. Antiaircraft defense is established on both banks of the river line to protect bridges and crossing places. Trains, motorized columns, and a part of the artillery cross first, the remainder of the artillery staying on the far bank until such time as the artillery element first making the crossing has established itself in position on the near bank and is ready to bring fire on the advancing enemy. At that time the remainder of the artillery crosses to the near shore and reinforces that portion already in action.

202. CONSIDERATIONS AFFECTING MEDICAL SERVICE

There are no special considerations of a defense of river lines that have not previously been discussed in chapter 8. All medical units must have prior information as to the type of action that is to be utilized by command in order that plans may be so constructed as to provide adequate medical service for the type of defense which may be employed.

203. MEDICAL SERVICE

Certain factors must be considered in planning medical service for any type of defense.

a. Adequate medical support must be maintained on the enemy side of the river to provide medical service for covering forces.

b. Collection of casualties from the field and from aid stations and their evacuation to the clearing station may be greatly hampered or stopped for considerable periods of time by the violence of the hostile attack. Lulls in combat are utilized to speed up collection by pushing ambulance elements well forward. In certain cases little collection and evacuation may be possible until after dark or until the enemy attack is repulsed. In either event sufficient reserves of collecting and ambulance elements will of necessity be maintained in order to clear the forward areas.

c. In the defensive-offensive action medical reserves must be maintained in equal proportion to combat reserves in order to provide sufficient medical support for the planned offensive. During the latter phase of such action, medical service will assume the pattern of medical service of the offensive.

d. In retrograde movements, when the river line is to be held as a defensive or a delaying position, medical service assumes the pattern of medical service of the defense.

Section III. PURSUIT

204. GENERAL

A pursuit is launched when the enemy is no longer able to maintain his position and endeavors to escape by retreat. Success is recognized by the continued advance of troops in a decisive direction and the capture of critical objectives, by the number and morale of captured prisoners, by the number of abandoned weapons, by the numbers of hostile dead, by the diminution of hostile artillery fire, by the relaxation or cessation of hostile countermeasures, and by the evidence that the enemy is withdrawing. The purpose of the pursuit is the annihilation of the hostile forces, which is accomplished by a combination of direct pressure against the retreating force and by the institution of an enveloping or encircling force to place troops across the enemy's lines of retreat, thereby destroying him between the two forces.

205. CONDUCT OF THE PURSUIT

a. The pursuit is conducted on a broad front. Motor transportation, including transportation captured from the enemy or abandoned by him, is employed to expedite the movement of foot troops. Troops before whom the enemy is retreating commit their reserves to gain the enemy flank and rear or to break through his covering forces.

b. Forces engaged in the direct pressure and in the encircling maneuver are assigned a direction of attack, zones of action, and objectives designed to bring pursuit to a decisive conclusion. Such directions and zones of action are around the flanks or through the wide gaps which defeat has opened in the hostile dispositions, or they may be a continuation of the existing zones of action.

206. MEDICAL SERVICE OF THE DIRECT PRESSURE FORCE

Due to the disorganization, if not demoralization, of the enemy, heavy battle losses are not to be expected. However, fatigue of the pursuing troops will contribute to the casualty rate. The pattern of medical service will assume that of the rapid advance.

207. MEDICAL SERVICE OF THE ENCIRCLING FORCE

a. Unit medical service will be similar, if not identical, to the medical service in the rapidly moving attack. However, suitable detachments of personnel from collecting platoons normally are attached to the encircling force. Because of the rapidity of action and great distances which may be traversed by this force, it is almost mandatory that division ambulances be attached to it.

b. Until secure communications can be established between an encircling force and the medical agencies supporting the direct pressure force, it will be impossible to clear the encircling force of its casualties. Provision must be made for the temporary care and treatment of such casualties by attaching to the encircling force a platoon of the clearing company with suitable equipment. This platoon will establish and operate a temporary clearing station at the rear of the position occupied by the encircling force, and will undertake such treatment of casualties as is possible until they can be turned over to supporting medical elements.

Section IV. OTHER SPECIAL OPERATIONS

208. NIGHT OPERATIONS

a. Combat at night is generally characterized by a decrease of effectiveness of aimed fire; by a corresponding increase in the importance of close combat; by the fire of fixed weapons laid on definite targets or areas by day; and by difficulty in movement, in control of combat elements, and in direction, contact, and communication. These factors require simple plans, including the restriction or complete elimination of maneuver, secrecy, surprise, and usually an attack on a single and limited objective.

b. The night attack is utilized to accomplish the completion or exploitation of success; to gain important terrain for future operations; to avoid heavy losses which would be incurred by daylight over open terrain; or to deceive the enemy, causing him to hold forces in position or to shift his reserves. Night attacks are seldom undertaken by elements larger than a battalion. However, two or more battalions may take part, under which circumstances the points of attack are sufficiently distant from one another to preclude their mutual interference.

209. MEDICAL SERVICE OF NIGHT OPERATIONS

a. Since the night attack will be of short duration and success or failure will be determined usually within an hour, medical service during the operation is difficult to maintain, and evacuation of the wounded before daylight will be extremely difficult.

b. If the objective is near enough to the line of departure, aid stations are established on the line of departure as soon as the attack is launched. Otherwise the aid station group follows the axis of the attack and establishes station as indicated.

c. Litter squads are easily lost. The attack moves so rapidly and its result is determined so quickly that, rather than have individual litter squads follow the assault troops, it is preferable to deploy them and have them systematically search the field after the combat elements have moved on.

d. Considerations of secrecy will ordinarily prohibit establishment of a collecting station prior to the launching of the attack. However, a site will be selected in advance and the liaison agents of the collecting platoon will report to the medical platoons of the battalions making the attack. As soon as the attack is launched, the collecting platoon will establish station at the predesignated position.

210. MOUNTAIN OPERATIONS

Mountain warfare is characterized primarily by the difficulties which terrain offers to movement. The inaccessibility of certain regions restricts areas in which troops are able to operate. The restricted nature of certain areas, such as narrow valleys and defiles, limits the strength of forces which can be maintained and moved therein. Because of inadequate road nets the existing roads in the terrain enhance their military value and add importance to terrain features which dominate them. Such terrain features consist of heights dominating roads, passes permitting movement through mountains, and roads and railroads in rear areas re-

quired for logistic support. Mountain operations are primarily limited because of the difficulties in logistic support. Both the first and second World Wars demonstrated that prolonged fighting on a large scale could take place in mountainous terrain in spite of the seemingly insuperable difficulties that had to be overcome.

211. MEDICAL SERVICE IN MOUNTAIN OPERATIONS

a. The terrain and the situation will require improvisation, but the general principles of medical service apply.

b. Until they can be brought to motor roads casualties will have to be evacuated by variously improvised means, such as by cacolet, travois, or aerial tramway. Litter squads will necessarily require augmentation to as many as 6 or 8 in order to traverse difficult terrain.

c. The use of collecting stations may not be feasible in many situations and casualties will have to be prepared at aid stations for extended evacuation. Since operations in mountains move very slowly, this preparation can be undertaken by unit medical personnel.

d. Every effort should be made to utilize animals native to the area for the augmentation of evacuation means.

212. OPERATION IN SNOW AND EXTREME COLD

Military operations conducted under conditions of snow and extreme cold follow the same basic principles as do operations under other conditions. They differ primarily in the tactical and logistical limitations imposed by adverse climatic conditions and in special types of equipment, training, and procedures necessary to overcome these limitations.

213. MEDICAL SERVICE IN OPERATIONS IN SNOW AND EXTREME COLD

Cold hastens the progress of shock and lessens the chances of recovery if the casualty is exposed for any extended length of time. Evacuation by litter is markedly hindered under conditions of cold and deep snow, and as a result, litter bearers are subject to excessive fatigue. In order to prevent a large percentage of deaths among casualties in extremely cold weather, the following principles must be observed.

a. Prompt collection of casualties from the battlefield and their rapid evacuation to locations where they can be kept warm.

b. Augmentation of collecting elements of both unit and division medical services.

c. Provision of enclosed transportation with adequate heating devices for medical units.

d. Provision of heated shelters at frequent intervals along the route of evacuation, at which warm drinks are available.

e. Readily available air transportation for the rapid evacuation of serious cases.

214. JUNGLE OPERATIONS

In jungle operations the soldier fights two enemies, man and nature. The elimination of nature as an enemy and the use of the jungle itself as an ally are fully as important as the elimination of the human enemy. All troops should have a thorough knowledge of the fundamentals of personal hygiene, preventive medicine, and self-protection against poisonous plants, noxious insects, and venomous reptiles if fighting efficiency is to be maintained in the adverse climate characteristic of tropical jungles.

a. In jungle operations tactical conditions appear more adverse than is really the case, casualties are exaggerated, and rumors prevail, leading to a feeling of insecurity among personnel. Therefore, morale is a highly important factor.

b. As a result of the terrain, excessive vegetation, and swamps, fatigue of troops is increased during operations.

c. Hygiene and sanitation are of paramount importance in the prevention of disease. Measures must be instituted early in the control of insects capable of transmitting disease.

215. MEDICAL SERVICE IN JUNGLE OPERATIONS

a. Equipment. Equipment prescribed by Tables of Organization and Equipment for units concerned with evacuation are in many instances not suitable for operation under jungle conditions. The use of the standard ambulance is seldom practicable on jungle trails, in swamps, and on unimproved muddy roads. Therefore, other types of vehicles, such as the ¾-ton or ¼-ton trucks are normally utilized for transportation purposes.

b. Evacuation. Every type of transportation by water or land should be used for transporting casualties to the rear, whether or not it is organic to the medical service. Normally, evacuation routes follow supply routes which are adequately protected against enemy action.

(1) Boats, rafts, and barges are used when practicable.

(2) Ordinary canvas litters normally do not suffice in evacuation across streams and gulleys or down precipitous cliffs; basket litters should be used under these conditions.

(3) Litter bearers who have been well conditioned may carry a litter for a distance of 400 to 600 yards over jungle terrain but are unable to repeat this performance without appreciable rest. Therefore, it is necessary in many instances to augment litter-bearer elements. Natives often can be advantageously employed in this manner.

(4) No one method of evacuation will suffice. A combination of all available means of collection and transportation of casualties must be utilized.

216. DESERT OPERATIONS

The principal characteristics of the desert affecting military operations are lack of water, absence of vegetation, large areas of loose sand, extreme temperature ranges, and brilliant sunlight. Military operations in the desert, therefore, must be governed by the following principles:

a. Restricted water consumption by all personnel and the conservation of water for all purposes are mandatory.

b. Large areas of loose sand will increase immeasurably the difficulties of transportation.

c. The extreme temperature range during a 24-hour period requires all individuals to be provided clothing not only for the extreme heat of the day, but for the severely cold nights.

d. Bright sunlight and resultant eye difficulties necessitate the provision of proper eye protection for all personnel.

e. Because of the afore-mentioned conditions existing in the desert, combat in such terrain is marked by the following characteristics—

(1) Greater mobility is possible because of the absence of natural tactical obstacles. Therefore, movement, all-around protection, and the maximum use of motor transportation are emphasized.

(2) Scarcity of roads and railways increases logistical difficulties, thereby limiting the radius of action of motorized forces.

(3) The absence of natural concealment is of importance in dispersion and artificial camouflage of tactical units.

(4) The absence of recognizable terrain features reduces the value of maps and necessitates accurate use of compass, sun, and stars in navigation, thereby increasing the difficulties of controlling tactical units.

217. MEDICAL SERVICE IN DESERT OPERATIONS

Evacuation and treatment of casualties in the desert present special difficulties as a result of the large areas over which action is distributed. The presence of wounded in highly mobile units will not only restrict the action of the units, but endanger their safety. In order to evacuate these units of their casualties, augmentation of the organic transportation of medical units will be necessary. Air evacuation is particularly valuable for the more serious cases.

218. REFERENCES

For principles governing special operations, see FM 70–10, FM 70–15, FM 72–20, and FM 31–25.

CHAPTER 11

MEDICAL SERVICE IN THE AIRBORNE DIVISION

219. GENERAL

Airborne units are ground forces which are specially organized, trained, and equipped to utilize air transportation for entry into combat. Normally such units will include parachute and glider-borne elements. They should not be confused with other ground units many of which may be transported by air but which are not specifically organized, trained, or equipped for this method of movement. Troop carrier forces are air forces which are specially organized, trained, and equipped to transport airborne troops and supplies into combat. They should not be confused with elements of the Military Air Transport Service (MATS).

220. MISSION

The mission of airborne units is to seize, hold, or otherwise exploit important tactical localities in conjunction with or pending the arrival of other forces; to attack the enemy rear and assist a break-through or landing by the main force; to block or delay enemy reserves by capturing and holding critical terrain features; to capture enemy airfields; to capture or destroy vital enemy installations thereby disrupting his system of command, communication, and supply; to create diversion; to delay a retreating enemy until the main forces can overtake and destroy him; to reinforce threatened or surrounded units; and to seize islands or other areas not accessible to other ground forces.

221. ORGANIZATION OF THE AIRBORNE DIVISION

The basic tactical airborne unit is the division. Its primary role is to make parachute and glider assaults. It is capable of landing in unprepared areas, immediately and effectively engaging the enemy. The airborne division, as initially committed, can be expected to fight and exist as a tactical unit without relief or resupply for approximately 48 hours. In organizing for combat, the division is divided into *assault*, *follow-up*, and *rear echelons*. The assault echelon normally includes parachute and glider elements. The follow-up echelon may include glider, airplane, overland, or sea-borne elements. The rear echelon includes administrative personnel and certain service elements. The airborne division's major elements are the same as those of the infantry division with the

addition of certain communications equipment, such as navigational aids, and maintenance elements for the special equipment of the division.

222. CONDUCT OF AIRBORNE OPERATIONS

The airborne division generally lands its three combat teams in three general drop zone areas in less than an hour. Command echelons are placed in the assault serials. As much equipment as possible is attached to individuals to increase their combat readiness upon landing and to decrease the time required for assembly. Additional supplies and equipment are dropped in separate bundles or landed by glider. The glider echelon lands in the landing zones of the parachute combat teams or in an area centrally located. Gliders normally land after parachutists have cleared the areas of local enemy resistance. Frequently a delay between the arrival of the last parachute and the first glider serial is prescribed in the air movement plan. The first parachute units to land are charged with gaining and maintaining security of the drop and landing zones. Other units are directed to prearranged assembly areas, using assembly aids to mark the sites. A battalion will normally be ready for action within 30 to 60 minutes after the drop. Designated personnel will remain on the drop and landing zones to protect the area, assemble stragglers, care for the casualties, and complete the removal of supplies. Combat during the early phase is based upon aggressive actions by small units. Units or personnel which are landed in areas other than those planned direct their efforts to the accomplishment of the general mission and establish contact with their respective headquarters as soon as possible. As soon as the initial objectives have been seized, defensive positions are organized, communications supplemented, reserves reconstituted, and other measures taken to prepare the forces to repel enemy counterattacks. Subsequent ground operations are utilized to exploit the advantages obtained by the establishment of the airhead and to follow the normal pattern of ground operations.

223. GENERAL CONSIDERATIONS OF MEDICAL SERVICE IN AIRBORNE OPERATIONS

The same principles governing the operation of the combat medical service of ground troops apply to that of airborne troops. Airborne medical units must have mobility equal to that of the unit supported. They must accompany the supported troops at all times, and they must provide prompt and efficient medical care and evacuation despite the inherent difficulties in the situation.

a. Careful sorting of casualties in all airborne medical installations is essential to prevent the overloading of a medical service that may have to operate for many days without evacuation from the outside.

b. After a link-up has been made between the elements of the airborne division and the troops making the main ground effort, the medical service of the airborne division does not differ from that of the infantry division in a normal ground operation. Likewise, upon the establishment of evacuation by air from the airhead, the medical service becomes normal in its function.

c. The airhead is roughly circular with the service elements concentrated in the center; therefore lines of evacuation are normally short and transportation for casualties may not be required. Ambulances are not available in the early phases of the operation. Until the arrival of the glider echelon bearing vehicles, medical service must depend upon the hand-carrying of casualties which is supplemented, in fortunate cases, by captured vehicles.

d. Evacuation of certain of medical installations will be nonexistent during the early phase, and casualties will accumulate at those points. The total number of casualties within the area will build up until either the ground link-up is made or evacuation by air begins. As a result of such accumulation, it will be necessary for airborne medical units to provide more extensive treatment to nontransportable cases, although this is not their normal function.

e. The airborne soldier must be highly trained in first aid. The possibility that he may have to treat himself or his comrades is not remote, for he may have landed in an area separated from his medical service, or medical personnel may have been lost in the drop. By the same token, the airborne medical soldier must be skilled in emergency medical treatment, for he may be the only medical help available for isolated groups.

224. MEDICAL SERVICE OF THE AIRBORNE INFANTRY REGIMENT

a. General. The medical service of the airborne infantry regiment is organized and conducted in a manner similar to that of the infantry regiment. Only those aspects which are different will be discussed herein. These include aspects primarily concerned with medical service during the assault phase of an airborne attack prior to the establishment of evacuation of the regimental collecting station. The medical company of the airborne infantry regiment is an airborne unit, and all of its personnel must be parachutists as well as gliderists, except the supply sergeant and cooks.

b. Loading of Personnel. Key personnel are divided into several planes in order that the loss of one or several planes will not paralyze the medical service. Company aid men are loaded in the planes with platoons to which they are attached, and jump with their platoons. Other personnel of the battalion medical platoon are divided among the planes transporting the battalion. Personnel of the collecting platoon and the company headquarters are loaded among the planes carrying the other elements of the regiment. Selected personnel are designated to accompany the transportation of the medical company to be brought to the airhead by glider a few hours following the parachute assault.

c. Accompanying Equipment and Supplies. Only those supplies which are absolutely essential to the conduct of the medical service are taken in by the medical company. The items most critically needed and used in the largest quantities are litters, blankets, splints, dressings, plasma, and morphine. The medical parachutist carries on his person the maximum quantity of medical supplies, for those are the only supplies that the medical company is assured will be on hand when needed. Selected individuals among the station sections and the litter bearers carry extra equipment for the collecting station.

(1) *Additional supplies* and equipment are parachuted to the ground at the time of the jump in aerial delivery containers. Normally an excess of authorized allowances will be delivered in this fashion, since losses among these bundles may be high.

(2) *Other essential equipment* is loaded in the transportation of the company and arrives later in the gliders. Furthermore, all gliders, regardless of the load in them, will carry one litter each and one or more blankets.

(3) *Resupply* is provided by the medical battalion as soon as contact is made and the evacuation of the collecting station begins. In an average operation, this will occur within 24 hours. A minimum of sufficient supplies for one day of operation is carried by the medical company.

(4) *Property exchange* is carried on in a normal fashion when evacuation of a collecting station begins, as long as the medical battalion has sufficient property for the purpose.

d. Medical Service During the Initial Phase. During the initial phases of the attack, the situation is confused and the medical service must be fluid. In addition to possible casualties caused by enemy fire, there will be jump injuries to be treated immediately on the drop zone. Furthermore, there may be a large number of casualties caused by crash landings in the glider landing zones.

(1) *Company aid men* treat casualties in their zone and move out with their platoons. Any or all of the other personnel of the medical company may be called upon to act as aid men and treat casualties as the occur in the vicinity. The wounded must be well marked and, if possible, assembled in small groups at collecting points or along axes of advance so as to facilitate later evacuation.

(2) *Litter bearers* assist in assembling the casualties at collecting points and, where possible, evacuate them to the aid station or the collecting stations, whichever may be closer.

(3) *Battalion aid stations* initially are located in the assembly areas with their battalions. The aid station moves out of the assembly area with the battalion when the movement to the battalion initial objective begins. If the initial objective is in the vicinity of the drop zone, the aid station may remain in the assembly area.

(4) *The regimental collecting station* initially is located in an assembly area. It is routinely placed in the vicinity of the regimental command post, and it moves out when the command post moves out. The collecting station, in addition to taking the casualties from the aid station, acts as an aid station for casualties occurring in the vicinity of the command post.

(5) It is not likely that the majority of the casualties of the combat battalions can be assembled in battalion aid stations in the early phase, nor can they be evacuated to the collecting station prior to the arrival of the glider echelon bearing vehicles to be used for transportation of casualties.

(6) Since the regiment may move a considerable distance to reach the initial objective, the battalion aid station and collecting station may also be required to move. Casualties in the stations must be left with an attendant when the stations move on.

e. Medical Service During the Later Phases. With the arrival of the vehicles and additional equipment in the gliders, evacuation of the battalion aid station should proceed promptly. Vehicles are used to collect casualties accessible to vehicles either from collecting points previously established or from wherever they may lie. Casualties will then accumulate in the collection station until evacuation by the medical battalion begins. Normally this will occur well within the first 24 hours. From this point on, the medical service of the regiment is similar to that of any normal ground operation.

f. Contact and Communications. The regimental surgeon must insure that the collecting platoon makes early contact with the battalion aid stations. This is an important factor in advanced planning and must be included in the briefing of all personnel in the plan for operation of the medical service. Since the battalion aid stations are in the vicinity of the battalion command post, their location can be determined from the regimental command post. The regimental radio nets may be utilized by the medical service for important communications. Contact with the medical company is the responsibility of the medical battalion. Liaison personnel of the battalion jump with the medical company to assist in establishing and maintaining contact. The regimental surgeon, however, must do all in his power to insure that this contact is made and maintained so that he may be relieved of his casualties at the earliest possible moment.

225. MEDICAL SERVICE OF THE DIVISION

The organization and operation of the medical service of an airborne division is similar to that of an infantry division. For an airborne division, however, certain differences exist.

a. The battalion cannot properly function without transportation and heavy equipment. Therefore, the battalion enters combat normally by glider. Exceptions are: the liaison agents parachute with the medical companies of the airborne infantry regiments, and the advance party of the battalion parachutes prior to the arrival of the main body. In order to save space in gliders, it may be necessary on some occasions to jump other personnel of the battalion. In special missions involving only one airborne combat team, when the glider echelon must be held to a minimum or is nonexistent, it may be necessary to jump elements of the medical battalion to reinforce the airborne medical company. The need for the medical battalion in an airborne assault is urgent. Until the battalion arrives in the airhead and starts operating, the regiments must retain and treat their own casualties. This is a function for which they are not properly equipped or staffed. Plans for the operation must call for the early arrival of the battalion.

b. Detailed advanced plans for the loading of the battalion into gliders should be prepared during the training phase. These plans should be extensively rehearsed. Such plans are modified as necessary to meet the requirements of a particular situation. Elements of the battalion are divided into several glider serials so that disaster to one serial will not cause the loss of key personnel and equipment. The transportation of the ambulance is loaded to ca-

pacity with equipment of the clearing company. These loads are left at the site selected for the clearing station before the ambulances are dispatched to evacuate the collecting stations.

c. Contact between the medical battalion and the regimental medical companies is a responsibility of the medical battalion. Prior planning and briefing of all parties concerned before the airborne operation begins is essential to the establishment of early contact. Liaison agents from the medical battalion jump with each regimental medical company, normally, two agents per company. The two men should be in different planes so that the loss of one plane will not prevent the accomplishment of their mission. One of the agents jumps with the regimental surgeon.

d. Early in the operation shortly after the first wave of parachutists, the advance party from the medical battalion jumps. The party consists of at least two officers and two enlisted men. It is divided into two sections and rides in two different planes. The mission of the advance party is to facilitate in every way possible the development of the battalion when it arrives. To accomplish this mission, the advance party will necessarily reconnoiter the sites selected for the clearing station, reconnoiter routes from the landing zones to the sites selected for all elements of the battalion, and ascertain and keep abreast of the tactical situation. They must determine the medical situation insofar as possible to include the planned location of the collecting stations, possible routes to be used for evacuating the collecting stations, and the priority to be given each station before evacuation. They must meet the battalion gliders when they arrive on the landing zones and guide the elements of the battalion to their destination on the ground. They must also brief the key officers of the battalion on the general situation and present recommended solutions to those problems which require immediate action.

e. The need for ambulance service in the early phases of an airborne operation is great. However, since the lines of evacuation are relatively short in most operations because of the roughly circular airhead, fewer ambulances are required than for a normal ground operation. A factor which must be considered in planning is the probable losses of ambulances in the glider landings. The types of vehicles that are used for ambulances will depend upon the types of gliders available. One-quarter-ton trucks are highly satisfactory for the purpose and can be carried in any standard glider. It may be necessary in some operations to substitute these lighter vehicles for the ambulances provided for in the Tables of Organization and Equipment. If vehicles other than standard ambulances are to be used, they must be equipped with

litter racks. For operations carried out in cold weather, provisions must be made to enclose these vehicles for the protection of the casualties.

f. The division clearing station is normally located centrally in the airheads. Elements of the clearing company should arrive at the same time as elements of the ambulance companies so as to be prepared to receive casualties brought in by the ambulances. The fact that the ambulances are loaded with the clearing station equipment facilitates coordination of the two functions. Only essential equipment is carried. This includes litters, blankets, splints, dressings, plasma, whole blood, drugs, tentage, and operating equipment necessary for the treatment of casualties. Messing for the casualties is provided from emergency type rations supplemented by hot drinks—cocoa, coffee, and soups.

g. Within 24 hours after the initial assault, the medical service of the airborne division should be operating in a smooth manner, with a flow of casualties through the battalion aid stations and collecting stations to the clearing station. Evacuation of the division clearing station cannot be carried out until either the ground link-up is made or field army medical service arrives in the airhead to hold casualties for further evacuation.

h. Early evacuation of the clearing station upon establishing the ground link-up and ambulances to be used for evacuation of clearing stations are given high priority. If ground link-up is not to be made early, field army medical units are given high priority for air transport to the airhead in order that they may relieve the divisions of casualties. Attachment of additional clearing or hospital elements to the division is mandatory if it appears there will be need for them.

i. Air evacuation of an airhead maintained by a single airborne division is not normally possible because the area occupied is not usually sufficient to provide adequate protection to operate an airfield. Casualties therefore will accumulate in the division clearing station. Since several hundred casualties may be received daily, the limit of capabilities of the personnel and equipment of the clearing company is reached early. Nontransportable casualties also accumulate. In order to save life, many of these will require immediate major surgery, such as is carried out normally only in a hospital unit; therefore it is essential that the problem of accumulation of casualties in the clearing station be considered during the planning phase prior to the operation, and that provisions be made for surgical treatment on a large scale in the clearing station.

j. It is not normally feasible to land cargo aircraft in an area occupied by a single airborne division. For this reason direct

evacuation of the division clearing station by large planes usually cannot be carried out. In special situations, it may be practicable to evacuate the clearing station by means of light aircraft or helicopters, but it is not likely that large-scale evacuation will be possible by this means. Still another possibility is the evacuation by glider pickup. This procedure calls for the snatching of a glider off the ground by a plane in full flight. Since gliders are already present in the division area, a sufficient number of them should be serviceable enough to be used for this purpose. Suitable approaches clear of obstacles in both directions are necessary for this maneuver. The ground crews necessary to set up the loop, tow rope, and poles; to load the casualties, and to communicate with the planes are required.

k. In a large airborne operation of corps or army size, the seizure of an airhead and the operation of airfields are normal operating procedures. In such an operation, field army medical units are airlanded soon after an airfield is opened. Divisional casualties are evacuated to hospitals established by such units and later evacuated by air in the conventional manner. With the advent of regular evacuation of the division clearing station, the division medical service would become identical to that of any normal ground operation.

226. MEDICAL SUPPLY IN AIRBORNE OPERATIONS

Delivery of all supplies to the airhead is by air. They may be landed by cargo aircraft, landed by cargo glider, dropped by parachute, or free dropped. Supplies of all classes are divided into echelons and classes as follows: accompanying supplies, unit air supply, and replenishment supply. Medical supplies and equipment with the exception of a few minor items are identical to the standard items normal to similar nonairborne units. In order to conserve critical space in the planes and gliders, only essential items of medical supply are utilized in an airborne operation. On the other hand, care must be exercised that no critical items are omitted, for resupply may be delayed. Allowances must be made for probable losses of supplies and equipment that are not recovered, or those carried in gliders that do not arrive at their destination. Critical items must be duplicated and loaded separately.

a. Accompanying Supplies. These supplies are carried by the airborne units to the airhead. They are issued to the units prior to movement to the marshaling camps, and may be carried into combat on the individual, in aerial delivery containers, or in vehicles loaded in the gliders. The medical parachutists of the airborne medical company carry on their persons the maximum

amount of medical supply. The principal items include dressings, plasma, morphine, and other drugs.

b. Unit Air Supply. Unit air supply is that supply which is delivered to assault airborne forces by free drop, parachute, or glider after landings have been effected, but before landing airfields are available. Airborne divisions and units of smaller size are not responsible for the transport of other than the accompanying supplies; however, the division surgeon usually indicates in detail by items and quantity the medical supplies that should be delivered to the division during the unit air supply phase.

c. Replenishment Supply. Replenishment supplies are those supplies transported to an airhead for delivery to corps or army supply points in the maintenance area. Normally, these supplies consist of daily maintenance supplies and those supplies for the build-up to the prescribed level. They will normally be landed in cargo aircraft which is the most efficient method of air delivery. A medical supply unit is required to operate the medical supply point.

d. Property Exchange. Replacement of items normally resupplied through property exchange will not be possible in the case of an airborne division until evacuation by higher command is established. There will be a critical need in the airborne division for large quantities of the items normally exchanged, particularly litters, blankets, and splints. A sufficient quantity of these items must be carried with the accompanying supplies to allow for this factor.

227. MEDICAL DETACHMENTS WITH SEPARATE UNITS OF THE DIVISION

These function the same as in the infantry division. They are modified as is necessary for airborne operations and as discussed in previous paragraphs.

228. REFERENCES

For general principles governing the airborne division and airborne operations see FM 100–5, FM 71–30, FM 101–10, and FM 7–40.

CHAPTER 12

MEDICAL SERVICE OF THE ARMORED DIVISION

229. GENERAL

The armored division is a highly mobile force possessing great striking power. As such, it is capable of decisively and rapidly attaining its objectives. This normally is accomplished by maneuvering and concentrating its fire power and physical mass against the most vulnerable portions of the enemy defenses with sufficient speed to deny the enemy time to properly meet the attack. The armored characteristic of shock action, resulting from the combination of mobility, maneuverability, and concentrated armored fire power, is brought to its highest state of effectiveness by welding together teams composed of tanks, armored infantry, armored artillery, and armored engineers, each contributing a specific type of action to the combined effort of the team. When possible, tactical air support is provided for these teams. A measure of security and reconnaissance for these teams is provided by elements of the reconnaissance battalion. The combat arms of the division are supported by appropriate mobile service elements.

230. MISSIONS, CAPABILITIES, AND LIMITATIONS OF THE ARMORED DIVISION

a. Missions. Missions assigned the armored division are those which take advantage of its outstanding characteristics.. Within its organization it contains both the arms required to make it a powerful fighting machine and the services necessary to support it. The armored division may be employed in most types of ground combat. Its characteristics, resulting from the predominance of tank strength, make it particularly suitable for the following missions:

(1) Offensive operations—particularly deep penetration, envelopment, pursuit, and exploitation.

(2) Defense, both sustained and mobile, in which counterattack is the chief means of accomplishing the mission.

(3) Delaying action.

(4) Destruction of enemy armor in both offensive and defensive action.

b. Capabilities. The organization of the armored division provides mobility, heavy armament, and armor in a force of combined

arms and services. These characteristics make it capable of executing the following actions:

(1) Exploitation following the break-through.
(2) Attack of objectives deep in the hostile rear.
(3) Destruction of hostile penetration by counterattack.
(4) Penetration and envelopment of hostile organized defenses, when adequately supported by air, additional artillery, and other arms.
(5) Pursuit.
(6) Occupation of a defensive position.
(7) Rapid movement or displacement over considerable distances with organic transportation and equipment.

c. Limitations. Tanks and other heavy full-track vehicles comprise a major portion of the vehicular strength of the armored division. These vehicles impose certain limitations on the employment of the division. Recognition of these limitations, as well as thoughtful prior planning by commanders to overcome them, will expand greatly the possibilities for employment of the armored division and will permit its use under circumstances which, until now, may have seemed impossible. Among these limitations are:

(1) The necessity for a constant and adequate supply of fuel and lubricants.
(2) Sensitivity of armor to terrain, meteorological conditions, and obstacles.
(3) The necessity for extensive maintenance.

231. ORGANIZATION OF THE ARMORED DIVISION FOR COMBAT

a. General. The armored division is organized to provide maximum flexibility in the formation of combined arms teams. This flexibility is reflected in the combat-command-separate-battalion organization. The combat command is a tactical headquarters directly under the division commander. It has no organic troops other than its own headquarters company. Combat and service elements of the division are attached to or placed in support of the combat command for each operation. Each battalion of the armored division is self-sufficient administratively.

b. Combat Organization. The armored division is organized to fight with two major elements called combat commands and a reserve element called the reserve command. In the majority of situations, the combat commands will be organized strongly and the reserve command will be organized lightly. This does not preclude the employment of the reserve command in the role of a combat command when it is organized suitably for the mission to be performed.

c. Attachments for Combat.

(1) Attachment of units to the combat commands and the reserve command are based on the status of the troops and on the division commander's estimate of the situation made for each major mission assigned to the division.

(2) In addition to the normal analysis of factors contained in the estimate of the situation, the armored division commander analyzes each factor for the purpose of deciding what grouping of tank, infantry, engineer, artillery, and service units within each combat command will accomplish best the division mission. Specifically, he seeks to determine whether the situation requires that one combat command be organized with a preponderance of infantry or tank units, or whether the proportion of tanks to infantry should be the same in each combat command. At the same time, he determines what the tank-infantry organization should be in the reserve command, and what mission the reserve command will be given in the operation. Units of the division which may be combat-ineffective must be given an opportunity to rest and perform maintenance in order to reach combat effectiveness in the shortest possible time; this may be done by attaching these units to the reserve command, provided early commitment of this command is not contemplated.

232. CONDUCT OF ARMORED OPERATIONS

a. Offensive. The ultimate purpose or objective of offensive action is the destruction of the hostile armed forces. An armored division attempts to gain this objective in the shortest time possible. The offensive action of the armored division is characterized by massed fire power, mobility, speed, violence, aggressiveness, surprise, deception, and ingenuity. The philosophy of armor is that the faster it moves and the quicker it accomplishes its mission, the smaller will be its losses and the more effective will be its gains. The strategy of armor is to plan boldly and well and to execute with aggressiveness and violence. Armor seeks to attack the enemy at weak and vulnerable points over terrain which favors the employment of tanks and other armored units. Then it masses its fire power and all its strength in a severe thrust against the enemy at the point selected, in order to overrun quickly his organized defense and reach his rear areas, where complete disorganization may be accomplished with relative ease. In the rear of the organized enemy positions, armor attains a high degree of

freedom of action. It seeks to create a maximum degree of confusion by disrupting enemy communications; destroying command posts, reserves, and supplies; and threatening the integrity of the entire enemy forward lines. Armor relaxes the intensity of its effort only after the final objective has been reached.

b. Defense. An armored division primarily is designed for offensive action. However, because of its great capabilities and versatility, it occasionally may be used in a defensive role. In the defense, the armored division, as a member of the corps fighting team, aids the infantry in maintaining the continuity of the line by adding depth to the battlefield, counterattacking, destroying enemy armor, and making counterthrusts. The armored division may resort to defensive combat when it wishes to gain time pending the development of more favorable conditions for undertaking the offensive or to economize forces on one front for the purpose of concentrating superior forces for a decision elsewhere. The armored division may assume the defense when, as part of a larger force, it is ordered to do so in accordance with the plan of the corps commander. Under these conditions, the armored division, because of its inherent characteristics of mobility and fire power, may be used to perform delaying action in front of the main battle position or may be used as a corps reserve with a counterattack mission. There may be occasions, too, when the armored division must be used to occupy a sector of the main battle position. When acting more or less independently, the armored division may assume the defense on its own; such occasions may occur when the armored division is exploiting or pursuing and is attacked by a superior force, or when it has reached its objective and must defend until the remainder of the corps reaches the area.

233. GENERAL CONSIDERATIONS OF MEDICAL SERVICE IN ARMORED OPERATIONS

The armored division normally fights with reinforced battalions. A tank battalion is normally reinforced with one or more armored infantry companies; an armored infantry battalion is normally reinforced with one or more tank companies. These reinforced battalions are supported by artillery and engineers. The primary concern of the armored division medical service in combat is to furnish close and continuous medical support to these reinforced battalions.

a. Armored units are characterized by mobility, rapidity of movement, and extended areas of action. Therefore the conventional organization of unit medical service with company aid men

and litter bearers on foot and relatively fixed battalion aid stations is entirely unsuitable for the medical support.

b. Because of the wide dispersion of tank elements in combat, company aid men, operating on foot as in the infantry division, would be unable to maintain continuous medical support of the combat troops. Therefore they are normally provided a vehicle (see par. 235). In some instances medical personnel are able to reach a tank immediately after it becomes disabled. So they must be trained in the removal of seriously injured from all types of vehicles. More often, however, medical personnel are not immediately available, and tank crews must be trained, not only to evacuate themselves through the various hatches and emergency escapes, but also to evacuate fellow crew members who are so injured that they are unable to escape without assistance. It is mandatory that all members of tank crews be trained and instructed in the major elements of first aid.

c. Because of the speed and wide dispersion of tank elements, litter bearers operating on foot as in the infantry division would be unable to provide continuous evacuation of casualties on the battlefield. Therefore transportation must be provided for them.

d. Battalion aid stations must be relatively, if not absolutely, mobile because of the rapidity of movement and dispersion in width and depth of the combat elements. In the infantry division the battalion aid stations are more or less fixed, since movement in that division is slow and their aid stations need not move any more rapidly than the combat elements which they support. The front of an infantry company is comparatively narrow and communications between platoons are usually visual or are carried out by means of foot runners. In the rapid movement of the tank company, however, dispersion of the tanks in width and depth precludes the support of the company without adequate communication with all tanks.

e. The application of the fundamental doctrine of medical service, i.e., emergency medical treatment, prompt evacuation, careful and efficient handling, sorting, and transportation of casualties to the rear is complicated by the problem resulting from the rapidity of movement and the wide dispersion of combat troops in armored operations. This situation has necessitated the adoption of the principle of area responsibility. Area responsibility is responsibility of the medical service of any organization for the collection and treatment of all casualties occurring in the area or zone of action for which the parent combat unit is responsible. On assuming area responsibility, the medical service of any combat battalion becomes responsible, not only for the casualties occurring

among the organic personnel of the battalion, but also for the casualties occurring among attached troops, or any other troops operating in their area or zone of action. This principle holds true throughout the division.

234. ORGANIZATION OF THE MEDICAL SERVICE IN THE ARMORED DIVISION (fig. 12)

a. The organization of the unit medical service of the armored division parallels that of the infantry division. Each combat element the size of a battalion or larger is furnished with a medical detachment subdivided into certain functional elements, i.e., company aid men, litter bearers, and aid station personnel.

b. The medical battalion of the armored division provides division medical and dental service and division medical supply as in the infantry division. It is organized into a headquarters and headquarters company and three identical armored medical companies.

(1) The headquarters and headquarters company is identical with the headquarters and headquarters company of the medical battalion, infantry division.

(2) In combat, one of the armored medical companies normally supports each of the combat commands, while the third medical company is either held in division reserve or is placed in support of the reserve command. The armored medical company is composed of a company headquarters, a litter platoon, an ambulance platoon, and a clearing platoon.

(3) The ambulance and litter platoons are organized as are those of the infantry regimental medical company except that they are slightly larger as a result of the necessity for covering greater areas.

(4) The clearing platoon of the medical company is organized around two mobile surgical operating units known as surgical trucks. The provision of two surgical trucks for each medical company permits the clearing station to advance or withdraw by leapfrogging.

235. UNIT MEDICAL SERVICE (fig. 12)

a. Tank Battalions. In the tank battalion, supporting medical detachments are mobile and equipped to operate over extended areas of action. Company aid men are provided with a vehicle, usually a ¼-ton truck with litter racks. These company aid men

combine with the litter bearers to form two-man evacuation teams, the teams being attached in combat to the tank companies on the basis of one team per tank company. These teams carry with them sufficient medical supplies and equipment to enable them to perform their duties over long periods of time. Normally the evacuation teams follow closely behind the supported tank companies and locate casualties as they occur. When a tank becomes disabled or indicates the presence of a casualty within the tank, the company aid man and litter bearer, with the assistance of the tank crew, evacuate the casualty from the tank and administer medical aid. These casualties may be evacuated to the battalion aid station by the evacuation team in their vehicle, or, in a rapidly moving situation, the casualty may be deposited on a predesignated casualty collecting point along the axis of advance to be picked up later by personnel of the aid station or by the ambulance platoon of the medical company. The tank battalion aid stations must be kept mobile in order to advance with their supported element. In order that movement may be rapidly accomplished, only so much of an aid station is established as the situation demands. The organization of the aid station group permits the station to be split so that it can advance or withdraw either by echeloning or by leapfrogging.

b. Armored Infantry Battalions. In addition to having company aid men attached in combat to the companies of the armored infantry battalions on the basis of one per combat platoon, evacuation teams, similar to those of the tank battalion, are provided on the basis of one team per combat company. When armored infantry are fighting dismounted, most of their casualties will be evacuated by the litter bearers operating on foot. When this type of evacuation is necessary, the litter-bearer platoon from the armored medical company will usually be required to assist the organic litter bearers of the infantry. In rapidly moving situations, the use of dismounted litter bearers becomes difficult and the evacuation team follows up the work of the company aid men, evacuating either from the battlefield or collecting points to the battalion aid station or some convenient point along the route of advance. Armored infantry battalion aid stations operate in a manner similar to the tank battalion aid stations.

c. Reconnaissance Battalion. In this battalion there is one company aid man attached to each platoon as well as an evacuation team per company. There are no organic litter bearers for foot evacuation, the only bearers being those of the evacuation teams. Because these battalions may be widespread, evacuation is normally to the nearest battalion aid station, whether it be the reconnaissance, tank, or armored infantry battalions.

d. Armored Engineer, Artillery, Ordnance, and Quartermaster Battalions. Company aid men are furnished to the engineer companies on the basis of one per platoon. Aid men are supplied other organizations on the basis of one per company or battery. There are no litter bearers in these medical detachments of these battalions as casualties are comparatively few and the battalion ambulance will, in nearly all cases, be able to reach the casualties.

236. DIVISION MEDICAL SERVICE
(fig. 12)

Companies A and B of the armored medical battalion normally support combat commands A and B respectively, while company C supports the armored division, minus two combat commands. Under most conditions these companies will be held under control of the medical battalion commander, but in specified instances, they may be attached to the combat commands and operate under the direction of the combat command surgeon.

a. There is no organization in the armored division equivalent to the medical company of the infantry regiment. Ambulance units evacuate aid stations established by the medical detachments of the armored combat battalions, whereas in the infantry division ambulance units evacuate collecting stations established by the regimental medical company. As a rule, since the battalion aid stations in the armored division are mobile, they are established so as to be accessible to these ambulances. The mobility of the aid stations dictates the establishment of an ambulance control post in order that the ambulance platoon commander may keep abreast of the medical situation, control the flow of ambulances to the proper aid station, and provide for the continuous evacuation of all aid stations in the combat command. The ambulance control post normally is established near the combat command headquarters. The ambulance platoon leader maintains radio contact with all battalion aid stations as well as with the medical company commander. Usually two or three ambulances are stationed in the control post in order that they may be dispatched as requested by the battalion aid stations. In turn, requests for replacement ambulances are made to the main ambulance pool in the vicinity of the clearing station.

b. The litter platoon is normally used to augment the litter bearers of unit medical service but in rare instances may be required to move casualties from the battalion aid station to establish ambulance loading posts.

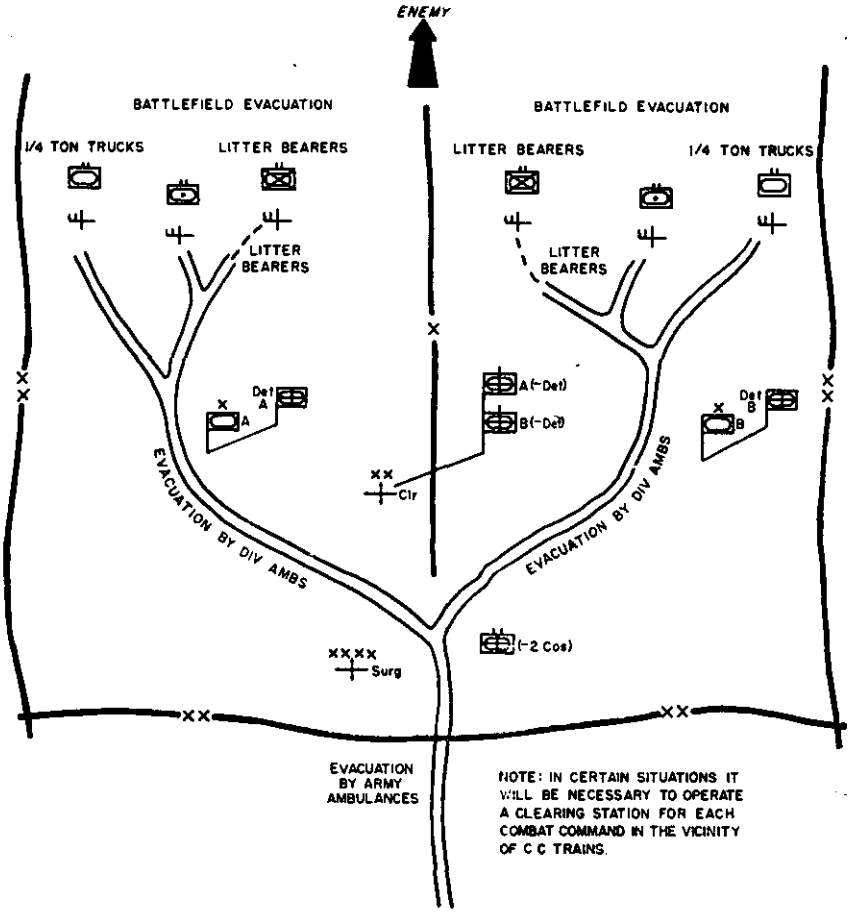


Figure 12. Tactical disposition of the medical service for an armored division.

c. The clearing platoon of the armored medical company establishes a clearing station in support of its combat command. Normally the clearing platoons of the three medical companies are combined to form one station. This facilitates both the medical service furnished by field army mobile surgical hospitals and the evacuation of the clearing station by higher command. The station is split only in unusual circumstances. The location of the clearing station is governed by the same general principles as those indicated for the clearing station of the infantry division.

237. COMBAT COMMAND SURGEONS

On the staff of the commander of each combat command and of the reserve command there is a medical corps officer known as the command surgeon. He is responsible to the commander for

all matters pertaining to the medical service of the command. His specific duties and responsibilities are analogous to those of the division surgeon, but the manner of execution differs in that he has no assistants. Although the combat command surgeons and the reserve command surgeon are responsible only to their respective commanders, their recommendations must conform to the over-all policies of the division surgeon. They call on the division surgeon for the assistance of the preventive medicine officer and the psychiatrist. In combat these staff surgeons are responsible for insuring that all troops within the combat command's zone of action are provided with adequate unit medical service and, by maintaining contact with the division surgeon, they insure continuity between unit and division medical service.

238. COMMUNICATIONS

a. In rapidly moving situations, common to the armored division, the problem of maintaining communications is paramount. Direct contact by means of personnel or vehicles is not usually feasible in such type operations. Radios are provided for all elements in the armored division including the medical service. Each battalion medical detachment is provided with a two-way voice radio which operates as an additional station in the battalion command net. This enables the battalion surgeon to receive calls for medical assistance from each of the tank companies. Thus the continuity and control of the medical service may be maintained by radio contact, and the battalion surgeon is able to keep himself informed as to the medical situation within the battalion.

b. Perhaps the most vital link in the chain of medical communications and in the chain of evacuation in the armored division is the ambulance platoon leader. This officer is provided with a vehicle equipped with radio. Normally he remains in the vicinity of the command post of the combat command that his medical company is supporting. He has direct radio contact with all battalion aid stations and keeps fully informed of the tactical and administrative situation. When there are casualties in the battalion aid stations that are ready for evacuation to the rear, the battalion aid station sends the information by radio to the ambulance platoon leader who dispatches ambulances forward. In addition, the ambulance platoon leader maintains radio contact with his medical company commander and keeps him fully informed of the tactical situation. He also relays requests for medical supplies from the battalion medical detachments.

239. MEDICAL SUPPLIES

Responsibilities and operations involved in the medical supply of the armored division are similar to those of the infantry division. However, the level of supply maintained in the headquarters company of the medical battalion is greater than that maintained in the medical battalion of the infantry division since the armored division may be required to operate over longer periods of time without support by higher command. The level of supply will depend upon the tactical plan and the administrative situation, but is usually maintained at a three-day level. Trucks of the headquarters company transport these supplies from army medical depots or distributing points to the headquarters company of the medical battalion. Trucks are then loaded with a three-day reserve of medical supplies for one medical company. Thus any given truck may accompany either of the medical companies.

Property exchange is mandatory in order to keep the forward elements supplied with necessary items.

240. REFERENCES

For general principles governing the armored division and armored operations see FM 100–5, FM 17–100, and FM 17–50.

CHAPTER 13

MEDICAL SERVICE IN THE CORPS AND ARMY

Section I. MEDICAL SERVICE IN THE CORPS

241. GENERAL

The corps is the highest subordinate command in a field army. It is a flexible combat force consisting of a headquarters, some organic corps troops, two or more divisions, and reinforcing combat and service troops that may be attached in accordance with its mission. The corps normally operates as part of an army. The functions of a corps in a field army are primarily tactical. The functions of a separate corps are both tactical and administrative, and it operates in the same manner as a field army. Under the former conditions, the corps commander has no responsibility for the administration of divisions. However, when administrative matters, including medical, impose limitations upon tactical plans, they come properly within his sphere of interest.

242. MEDICAL SERVICE IN THE CORPS

a. Medical service in a corps when serving as a part of a field army consists of a medical section of corps headquarters, which includes the corps surgeon and those assistants required for the performance of his mission, and unit medical personnel of corps headquarters, which provide unit medical service to the headquarters. Normally there are no medical units organic to the corps. In certain instances, however, operational control of certain field army medical units may be decentralized to the corps. When operating as an independent or separate corps, all necessary service units, including medical, are assigned to the corps in order that adequate service support can be provided for the performance of its mission. Operation of the corps then becomes identical with that of the field army. Further reference to the corps in this discussion refers only to a corps when serving as a part of the field army.

b. In certain instances the field army surgeon may find it desirable to recommend attachments of certain field army medical units to the corps for operational control in order to decentralize a portion of the medical service of the army. In this case, operational control of these units passes to the corps surgeon as the medical staff officer of the corps commander. Such units may in-

clude medical groups, separate medical battalions, mobile surgical hospitals, evacuation hospitals, and various types of cellular units. These units operate in the same manner as when operating under the field army except that decisions regarding their movements and tactical dispositions emanate from the corps instead of the field army. Normally they are in support of only those divisions and combat and service elements attached to the corps.

243. THE CORPS SURGEON

In addition to the duties normal to the surgeon of a large command, the corps surgeon has certain responsibilities not common to surgeons of other commands.

a. He keeps the corps commander informed of the medical situation in all divisions of the corps so far as it may exert any influence upon tactical operations.

b. He holds himself ready to carry out responsibilities for medical service which may be delegated to the corps commander. When the corps is operating independently, this will include the exercise of all functions of a field army surgeon.

c. He develops plans for the reinforcement of division medical service within the corps. Should such reinforcement be required, it is requested from the field army.

244. OFFICE OF THE CORPS SURGEON

The exact organization of the office of the corps surgeon is determined by the corps surgeon conditioned by existing personnel allocations. His major staff responsibilities fall normally into the following categories:

a. Administration. This includes general routine administration of corps medical troops, if any, and the housekeeping functions of his own office.

b. Personnel. This embraces management, assignment, and reassignment of personnel within the medical section of corps headquarters, and the making of recommendations in regard to other medical personnel attached or assigned to the corps.

c. Preventive Medicine. All matters pertaining to the prevention and control of disease including inspection and supervision of sanitation, inspection of food and water supplies, and the maintenance of statistics of disease and nonbattle injuries are performed in his office. The responsibility of the corps with reference to preventive medicine is limited generally to corps troops and to those parts of the corps area that lie outside division boundaries. However, the army may decentralize to the corps

the supervision of preventive medicine measures of the division. Under such circumstances the corps surgeon will normally be provided with a preventive medicine company from the field army. Whenever preventable disease reflects itself in the combat efficiency of the combat divisions, it becomes a matter of tactical concern to the corps commander and is then his responsibility.

d. Operations and Training. Routine responsibilities include the employment and training of medical troops attached or assigned to the corps and the supervision of training in first aid, sanitation, and personal hygiene for combat elements attached or assigned to the corps. Evacuation and hospitalization become responsibilities only when delegated by the field army. This division usually functions as an inspection service except when additional functions and responsibilities have been assigned.

e. Medical Supply. This includes supervision and inspection of medical supply matters within the corps and the taking of appropriate staff action through tactical or command channels in order to correct deficiencies.

f. Technical Specialists. Usually no technical specialists are assigned to the corps surgeon's staff for consultation service.

245. RELATIONS OF THE CORPS SURGEON TO OTHER SURGEONS

a. The relationship of the corps surgeon to division surgeons depends upon the administrative organization prescribed in the particular field army. Operating as a part of the field army, the corps normally has no administrative responsibility for control of division medical service. However, the corps surgeon may exercise technical supervision over division medical service to include inspections and the making of recommendations on technical matters. The corps surgeon does not exercise command authority over division surgeons.

b. The relationship of the corps surgeon to the surgeons of elements operating in the corps area is advisory only. When their medical operations affect the tactical operation of the corps, the corps surgeon takes necessary action through command channels.

c. The relationship of the corps surgeon to the field army surgeon is that normal to the relationship of any subordinate command to a higher command.

Section II. MEDICAL SERVICE OF THE FIELD ARMY

246. GENERAL CONSIDERATIONS

The field army is the largest self-contained tactical unit in the military forces of the United States. It has territorial, tactical, and administrative functions. Larger tactical commands may be formed by grouping two or more field armies. Such a combination is designated as an army group. Field armies of more than one nation may form such a group.

247. ORGANIZATION OF THE FIELD ARMY

The permanent organization of a field army consists of a headquarters, army troops, and two or more corps, consisting of two or more divisions each. Some or all of the divisions may be assigned from time to time to a corps. While the ultimate organization of the field army is no more fixed than that of a corps, the nature of its missions ordinarily precludes frequent or important changes in the means allotted to it. Flexibility of organization is best achieved by varying the allocation of divisions to the corps within the army.

a. Army Headquarters. Headquarters includes the commander and commissioned and enlisted assistants. The commander may establish one or more headquarters, usually a forward and a rear headquarters, and allocate his staff thereto as he desires. The composition of each headquarters will naturally vary with the mission of the army and its basic staff organization. A headquarters company provides the utilities, messes, and other housekeeping services for the headquarters.

b. Army Troops. Troops of any or all arms and services may be assigned or attached to the field army as the mission and the situation may dictate. Such troops are controlled by their particular arm or service section in army headquarters. Elements of the following arms and services are normally present:

(1) *Antiaircraft artillery* for the antiaircraft protection of field army installations and for augmentation of the antiaircraft artillery of subordinate commands.

(2) *Corps of Engineers* for general engineering tasks in support of the field army as a whole and for reinforcing the organic engineers at subordinate levels; for such special

tasks as bridging, map making, camouflaging, demolition, hospital construction, road construction and maintenance, and the supply of water and engineer materials.

(3) *Signal Corps* for the construction, maintenance, and operation of field army signal communications of all types; photography; intercepting enemy radio communications and locating their radio stations; and for the supply of signal materials.

(4) *Chemical Corps* for the detection and identification of chemical, biological, and radiological warfare agents; the decontamination of vital areas and matériel; the impregnation of clothing and other materials with protective agents; the employment of smoke; and the supply and maintenance of chemical, biological, and radiological warfare matériel.

(5) *Ordnance Corps* for the supply and maintenance of ordnance matériel including all motor transport.

(6) *Quartermaster Corps* for quartermaster supply and the provision of bathing and laundry facilities.

(7) *Army Medical Service* for the medical service of army troops, for the evacuation and hospitalization of casualties occurring forward of the army rear boundary, and for the supply and maintenance of medical materials. (See table I.)

(8) *Military police* to control such parts of the army area as are not controlled by the military police of subordinate commands, and to relieve subordinate headquarters of their prisoners of war.

(9) *Transportation Corps* for the operation of truck companies, car companies, and amphibious truck companies.

(10) *Civil affairs detachments* for control of civilian affairs in the army area.

c. Corps. To the field army may be assigned any number of corps greater than one. The field army, used as a basis of organization and for purposes of instruction, consists of three corps, but this must not be construed as fixing the number of corps.

d. Divisions. Any number of divisions greater than three may be assigned. The field army contains twelve divisions—three corps of four divisions each. The army commander assigns divisions to corps and relieves them therefrom. He may retain some divisions directly under his own control.

Table I. Medical Elements of a Field Army

Type unit	Basis of allocation
MEDICAL (Combat Support)	
Headquarters and headquarters detachment medical group.	1 per corps
Headquarters and headquarters detachment medical battalion (separate).	6 per army 1 per corps.
Medical holding company	3 per army
Convalescent center, army (1500-patient)	1 per corps
Evacuation hospital (750-bed)	1 per corps
Evacuation hospital SM (400-bed)	1 per division
Mobile Army surgical hospital	1 per division
Army depot company	1 per army
Medical clearing company, separate	6 per army 1 per corps
Medical collecting company, separate	3 per army 1 per corps
Medical ambulance company, separate	9 per army 2 per corps
Preventive medicine company	1 per corps
MEDICAL (Service Support)	
Dental service detachment	12 per army
Surgical detachment	4 per army 2 per division
Orthopedic detachment	6 per army
Shock detachment	12 per army
Maxillofacial detachment	3 per army
Neurosurgical detachment	3 per army
Thoracic-surgical detachment	6 per army
Mess detachment	1 per headquarters professional services
Automotive maintenance detachment	3 per headquarters professional services
Veterinary food inspection detachment	4 per army
Medical detachment	4 per army 2 per corps
Psychiatric detachment	1 per corps
Medical field laboratory, Army	1 per army
Professional services, headquarters	1 per army
Optical repair detachment	1 per army
Optical repair detachments (BG)	4 per depot company
Preventive medicine control detachment	4 per army
Preventive medicine survey detachment	2 per army
Dental prosthetic detachment (mobile)	13 per army

e. Allocations of Medical Units. Medical units allocated to a field army are shown in table I.

248. ADMINISTRATIVE RESPONSIBILITY OF THE FIELD ARMY

The army has full administrative responsibility for all of its component units. It is the next administrative headquarters above the division, and it deals directly with divisions in all administrative matters.

a. Personnel. The army is responsible for all matters affecting the strength, morale, and mobility of its troops. It maintains a replacement depot, or depots, from which it fills the requisitions of its subordinate elements. The strength of replacement depots is maintained at established levels by periodic requisitions on the theater of operations. Replacements are furnished directly to divisions, for units of divisions; to corps, for corps troops; and to units, for army troops.

b. Supply. The army is responsible for all classes of supplies, furnished by all arms and services, for its component elements. Each supply arm and service represented in the army maintains one or more depots. The army commander determines the levels of stockage to be maintained in army supply depots. The standard unit of measure of stockage is "a day of supply." Levels are maintained in army depots by drawing upon more rearward depots in the theater of operations, either by requisition or against established credits. Consolidated requisitions are submitted to the army directly by divisions, for their subordinate elements; by corps, for corps troops; and by units, for army troops. Each such requisition is limited to the supplies furnished by one arm or service, and may further be restricted to one class of supplies. Supplies are distributed through the same channels—delivery ordinarily being made at army depots or railheads.

c. Medical Service. The field army is responsible for all evacuation and hospitalization forward of the army rear boundary.

249. MISSIONS OF FIELD ARMY MEDICAL SERVICE

Basic missions of army medical service are to:

a. Relieve corps and division medical services of continued care and treatment of their sick and injured in such a manner that their medical services may retain maximum mobility.

b. Furnish direct medical support to the unit medical service of army troops operating outside the zones of responsibility of corps and division medical services.

c. Collect into army installations all evacuees in the army area, there to sort them, continue their care and treatment, prepare such as require it for further evacuation, and return to duty all cases capable of being effectively used within the army area.

d. Reinforce the medical services of divisions in situations wherein they require greater medical means than are organically provided.

e. Institute and supervise, through proper channels, all practicable measures directed toward maintenance of physical fitness in the able-bodied.

f. Discharge all functions, comparable to the foregoing, in connection with any animals of the army.

g. Procure and distribute to all elements of the army items of supply furnished by the Army Medical Service.

250. GENERAL ORGANIZATION OF MEDICAL SERVICE OF THE FIELD ARMY

There are three component parts to the medical service of the army:

a. The Medical Section of Army Headquarters, which includes the army surgeon and his commissioned and enlisted assistants.

b. Army Medical Units, consisting of those medical units in the combat zone that are not assigned or attached to a lower element.

c. Unit Medical Personnel, comprised of the medical detachments with units of army troops.

251. THE ARMY SURGEON

The army surgeon is especially selected and appointed to his position. Orders announcing his appointment are issued by the army commander. He functions as a special staff officer of the field army commander and exercises operational control over all medical units of the field army not attached or assigned to a subordinate command. As a special staff officer of the commander, the army surgeon has the following duties:

a. To keep the commander and his general staff constantly informed as to the conditions in, and the capabilities of, the medical service for which the commander is responsible.

b. To elaborate the medical details necessary to carry the commander's decisions into effect.

c. To initiate measures for the prevention and reduction of disability and death rates in the command. Such of these measures as involve command responsibility, except in the case of medical units commanded by the surgeon, are initiated in recommendations

to the commander concerned. Measures pertaining only to technical procedures to be followed in the prevention, care, or treatment of disease and injury may be initiated by direct instructions to the medical officers concerned.

d. To advise the commander and his staff regarding all aspects of medical training for which the former is responsible.

e. To advise the commander and his staff regarding the allocations of medical replacements and medical reinforcements.

f. To make for the commander the necessary inspections to insure that his desires pertaining to the medical service in all commands, including the medical aspects of training, are being carried out.

g. To advise the commander concerning all command decisions pertaining to, or involving, the medical service.

h. To procure, store temporarily, and distribute all medical, dental, and veterinary supplies for which the commander is responsible; to study medical supply requirements and to advise the commander thereon.

i. To prepare and forward consolidated reports relating to the sick and injured, and to furnish this information to other staff officers concerned.

j. To keep the surgeon of the next higher command informed of the medical situation within the army.

k. To examine and report upon captured medical equipment.

252. ORGANIZATION OF THE OFFICE OF THE ARMY SURGEON

The medical section of army headquarters consists of the surgeon and his commissioned and enlisted assistants. No internal organization of the medical section is prescribed, nor can any rigid rule be laid down that will meet the requirements of all situations. However, the major missions of army medical service must be reflected in the organization adopted. This organization must be sufficiently flexible to enable the surgeon to shift emphasis among the various subsections as the situation requires. The following outline is intended as a guide which may be expected to satisfy average requirements.

a. Administrative Subsection. The administrative subsection is charged primarily with all routine administration of a general nature. Specific functions include:

(1) Operation of the message center.

(2) Supervision of the clerical pool.

(3) Maintenance of the office files.

(4) Preparation of special administrative reports.

(5) Responsibility for all fiscal matters.

b. Plans, Operations, and Training Subsection. The chief of this subsection is a medical officer especially qualified in the military aspects of medical service. His functions include:

(1) The training of medical units, lending assistance in the training of nonmedical units in basic medical subjects, development of training policies and programs, and the execution of training inspections.

(2) The employment of army medical units, location of army medical installations, assignment of medical tasks, allocation of reinforcements to lower commands, and movement of medical units.

(3) The development of hospitalization and evacuation policies, in accordance with theater policies.

(4) Planning of the medical service for special operations.

(5) Coordination, control, and screening of requests from army medical units and detachments to temporary or permanent changes in their organization or equipment.

(6) Maintenance of contact with medical sections of allied troops, higher commands, and the communications zone on all matters pertaining to the medical service in the combat zone.

(7) Operational control of professional complements.

c. The Preventive Medicine Subsection. This subsection is headed by a medical officer especially qualified in preventive medicine. Functions of this subsection include:

(1) Sanitary inspection of all army units and of units of subordinate headquarters, in cooperation with the surgeons thereof.

(2) The inauguration of preventive medicine programs to meet special threats to health such as malaria, typhus, trench foot, and venereal disease.

(3) Preparation of the army sanitary order and other directives dealing with the prevention of disease.

(4) Investigation of epidemics or unusual incidences of communicable disease.

(5) Maintenance of contact with civilian health agencies.

(6) Maintenance of contact with allied forces and with the surgeons of higher and lower headquarters.

(7) Review of sanitary reports of lower commands and the preparation of reports for higher headquarters.

(8) Recommendation for the execution of surveys to determine measures to be used in the prevention of disease or the elimination of hazards to health.

d. Supply Subsection. The chief of this subsection is an officer of the medical service especially qualified in supply. He is the army medical supply officer. In general, the function of this subsection is to maintain an adequate and constant supply of all items necessary to give complete medical service to every sick or wounded individual of the command. Close liaison with G–4, the supply agencies of other services, and the theater medical supply officer is essential. Specific functions include:

(1) Close supervision of, and familiarization with, depot stocks and critical items.

(2) Adjustment of depot stocks in anticipation of changes in the tactical situation. (These changes in stock level are based on past experience under similar conditions, methods of treatment, length of lines of communications, and availability of transportation.)

(3) Inspection of medical units with reference to the condition of all medical equipment, storage facilities, safeguarding of supplies and equipment, and quantities of expendable items on hand.

(4) Review and consolidation of requests for excess medical equipment.

(5) Formulation of plans for medical supply in anticipated operations.

(6) Assistance in the selection of sites for the army medical depot.

e. Veterinary Subsection. Headed by the army veterinarian, this subsection assists the army surgeon in the following manner:

(1) Conducts or supervises the inspection of food supplies and forage.

(2) Initiates or consolidates veterinary reports for higher headquarters.

(3) Supervises the activities of the army veterinary units.

(4) Recommends sites for the establishment of veterinary installations, and the quartering of veterinary units.

(5) Coordinates the evacuation of animals from army veterinary units to communications zone hospitals.

(6) Screens requisitions for medical supplies and equipment of veterinary units.

(7) Maintains personnel records of veterinary officers.

f. Nursing Subsection. This is headed by a member of the Army Nurse Corps, who will function as the chief nurse of the field army and will serve in an advisory capacity to the army surgeon, unit commanders, and chief nurses on matters pertaining to nursing activities. Her duties normally are the following:

(1) To maintain personnel data on officers of the Army Medical Corps.
(2) To rotate nurses within the combat zone so as to equalize work loads and assure rest from rigorous duty.
(3) To conduct technical inspections of the nursing service in field army hospitals.
(4) To recommend policies for the control and issue of equipment for nurses, post exchange supplies, and clothing.
(5) To arrange facilities for nurses' rest and recreation.
(6) To organize facilities for the professional and administrative training of nurses and enlisted personnel of the Medical Service working in units without nurses.
(7) To maintain liaison with the chief nurses of the theater and the communications zone.

g. Personnel Subsection. The functions of the chief of this subsection include:

(1) Preparation and consolidation of personnel requisitions and reports.
(2) Coordination of the transfer and assignment of personnel of the medical service including the Women's Medical Specialist Corps.
(3) Maintenance of personnel records, including qualification cards on all officers of the medical service.
(4) Processing of recommendations for direct commission and promotion of officers of the medical service.
(5) Establishment and operation of an equitable system for rotation, rest, and recreation of personnel of the medical service. This is done in conjunction with G–1.

h. Historical Subsection. The chief of this subsection has the following duties:

(1) Prepares such periodic reports on the medical service as are required by the commander and the surgeon.
(2) Compiles the annual report of medical activities.
(3) Assists medical historians of subordinate units in the preparation of their reports and histories, and checks army medical units for the maintenance of proper historical records.

(4) Drafts medical inclosures for the official field army history.

(5) Maintains a chronological record of important policies and activities of the medical service.

(6) Prepares public information releases concerning individuals and medical accomplishments of units of the field army. This is done in conjunction with the Public Information Office.

(7) Prepares citations to accompany awards and decorations for individuals and units operating under control of the army surgeon.

i. Medical Records and Statistics Subsection. This subsection is headed by an especially qualified statistician and performs the following functions:

(1) Collection of statistical data from all available reliable sources.

(2) Evaluation and interpretation of the data and their organization into usable form.

(3) Preparation, for the surgeon, of statistical data that reflect the status of the medical service.

(4) Assistance to the other subsections in preparing the statistics for operational reports.

(5) Furnishing the chief of the historical subsection with available material of value in developing a complete and accurate history.

(6) Preparation of experience tables for use in anticipating numbers of casualties, supply needs, personnel requirements, and the like.

(7) Preparation of directives pertaining to medical statistical reports and records; assistance to hospital registrars and corps, division, and unit administrative officers in establishing simple yet efficient administrative procedures, and familiarizing them with army requirements.

j. Consultants. Normally there is one surgical, one medical, and one neuropsychiatric consultant in the medical section of army headquarters. Other consultants may be designated to fill requirements resulting from unusual climatic, geographical, battle, or other conditions. The surgeon may find it desirable to organize the consultants into a subsection. If not, they usually function directly under the surgeon's executive officer. Their duties include dissemination of technical information, professional guidance and stimulation, the evaluation and supervision of the proper usage of skilled personnel, review of technical reports and articles for pub-

lication, and the formulation of policies pertaining to the treatment of the sick and wounded.

k. Other Subsections. The injection of new factors into the medical problem may indicate the creation of additional subsections, either to supervise new functions or to devote more specific attention to old functions previously allocated to other subsections.

253. RELATIONSHIPS OF THE ARMY SURGEON

a. With subordinate surgeons. The relationship of the army surgeon with the surgeons of lower command levels will depend in large measure on the policies of the army commander. In all cases, however, the army surgeon directly supervises all medical service for which the army commander is responsible and exercises full authority over the technical aspects of medical service.

(1) In preventive medicine, policies directed at the prevention and control of disease and injury are command decisions. The surgeon, however, must coordinate and direct such technical activities as are undertaken in compliance with the policies or specific instructions of the army commander.

(2) In treatment of the sick and injured, the army surgeon will prescribe the methods of treatment and preparation of casualties for evacuation to be followed in lower commands. He will define the term "nontransportable" in relation to the types of patients who will be retained in mobile army surgical or other hospitals of the combat zone.

(3) Arrangements for evacuation are made through command channels, ordinarily by the G–4 of the interested headquarters. The details, however, are arranged between the army surgeon and the surgeons of subordinate commands. This requires a close coordination during periods of active operations.

b. With Surgeons of Army Units. In his relations with surgeons of army troops, other than medical, the army surgeon exercises technical supervision, but no command control.

c. With Commanders of Army Medical Units. Although army medical units are commanded by the field army commander, the army surgeon, having operational control of army medical units not attached or assigned to lower commands, issues orders and instructions to the unit commanders who in turn issue them, with necessary amplification, to the units. The commanding officers of each army medical unit report to the army surgeon on all matters that require a decision from or are of interest to higher authority.

d. With Medical Regulator. The medical regulator is a member of the staff of the surgeon, advanced section, or in a small theater, the surgeon, communications zone. The medical regulator is responsible for the coordination of evacuation between the combat zone and the communications zone. While the official channel of communication between the surgeon of the field army and the regulating officer is through the army commander, it is essential that there be close cooperation between the surgeon and the medical regulator. The surgeon will keep the latter informed of the number and location of casualties awaiting evacuation, and pass on to him such information of anticipated developments in the medical situation as is necessary. The medical regulator ascertains from the communications zone surgeon as to the number and location of beds available. From this information the medical regulator prepares train schedules in coordination with the traffic officer, advising both hospitals to be evacuated in the field army and receiving hospitals in the communications zone.

e. With the Surgeon, Communications Zone. It is essential that there be close cooperation between the army surgeon and the surgeon of the communications zone. The army surgeon must keep the communications zone surgeon informed of the evacuation requirements of the army. The location of communications zone hospitals in the combat zone, rotation of personnel, the supply of fresh blood to combat troops, evacuation, supply, and property exchange are some of the matters requiring close coordination and agreement between the two surgeons.

f. With Chief Surgeon of the Theater of Operations. In principle, the relationship between the army surgeon and the chief surgeon, theater of operations, is similar to the relationship of the division surgeon to the army surgeon. There must be close contact between the two, the army surgeon keeping the chief surgeon fully informed of the current medical situation in the field army, and of his plans for the employment of the medical service in future operations. The impetus of all medical service comes from the rear; it is therefore essential that the chief surgeon be kept continuously aware of the activities of and plans for employment of the army medical service.

g. With the Field Army Commander. The general responsibilities of the surgeon to his commander are those of any surgeon to command, such as:

(1) The submission to the commander of plans for the training and employment of medical units.
(2) The supervision, for the commander, over the technical aspects of the training and operation of the medical

services of subordinate elements. This is purely a staff function and does not encroach upon the prerogatives of subordinate commanders. It is the duty of the surgeon to follow up the instructions issued by the commander which apply to any phase of medical service. He may call for such technical reports from surgeons of subordinate units as are necessary in supervising the execution of the responsibilities with which they are charged.

(3) In the capacity as the commander of medical units, his responsibilities to the field army commander are the same as those of any subordinate commander.

h. With Other Staff Sections. For relationships of the army surgeon with other staff sections see chapter 2, section III.

254. GENERAL CONSIDERATIONS IN EVACUATION

Evacuation is the procedure of moving casualties to the rear through successive medical installations. For each casualty that is moved to the rear there must be a replacement brought forward; therefore, it is paramount that the medical service does not evacuate casualties of any type that can be rehabilitated in the various medical installations of the army. Critical evaluation of the time required for rehabilitation of each casualty, as opposed to the immobilization of medical installations by the accumulation of casualties, must be made prior to evacuation from combat zone installations. The entire scheme of evacuation is based on the principle of providing "the most rapid method, the shortest route, and the least discomfort to the casualty."

a. From Divisions and Corps. The responsibility for evacuees passes to the field army at the clearing station. Such of the evacuees as are transportable are moved as soon as they receive the minimum essential treatment in order to avoid immobilizing the clearing station with large numbers of casualties. Transportable casualties are normally evacuated to an evacuation hospital. Field army ambulances are the usual means of transportation. Nontransportable casualties received in the division clearing station are transferred to a mobile army surgical hospital, which is normally in the vicinity of the clearing station. When nontransportable casualties are received in a clearing station that is not supported by a mobile army surgical hospital, they must be held until they can be moved safely even though such action immobilizes a portion of the unit.

b. From Units of Army Troops.

(1) The army medical service, with its organic ambulances, collects the casualties from the dispensaries and aid sta-

tions of units to the rear of the division rear boundaries, and transports them to an army clearing station. The evacuees of an army clearing station for the most part enter the army chain of evacuation and are taken to an evacuation hospital, although certain short-duration cases may be transferred directly to an army convalescent center or to units established for the treatment of special types of cases.

(2) Army units operating within the division zone of responsibility are not habitually furnished direct support by army medical service. They will be supported by the medical service of the division.

c. Rear Termini of the Army Chain of Evacuation. Evacuation hospitals normally are the rearmost units in the army chain of evacuation. At these installations the responsibility for evacuation passes to the communications zone. If, however, an army holding company or other unit is employed to operate a holding installation anywhere in the chain of evacuation, the army medical service assumes the responsibility for evacuating patients from the hospitals to the holding installation even though it may be rearward of the evacuation hospitals. At that installation, then, the responsibility for evacuation passes to the communications zone. The communications zone may evacuate from army installations by means of motor ambulance, aircraft, hospital train, ship, or other bulk transport. When the communications zone establishes hospitals in the army area, it may be simpler for army to evacuate its patients directly to such fixed installations.

d. Veterinary Evacuation. When required, veterinary chains of evacuation in the army are comparable to those for human evacuation (see ch. 19).

255. OPERATIONS IN EVACUATIONS

The G–4 section is the general staff section concerned with evacuation. It is a responsibility of the surgeon to keep that office informed of the operation of the army chain of evacuation, and to obtain from it such decisions for the use of the areas, buildings, and routes as are necessary for the coordinated operation of the evacuation system. Evacuation of divisions in established land warfare is carried out as follows:

a. Arrangements. In strict procedure, the arrangements for the evacuation of divisions are instituted through command channels. The details, however, are worked out through technical (medical) channels. The arrangements include an estimate of the number of

casualties to be evacuated, the locations of the clearing stations, the schedule to be followed, and the routes to be taken. Ambulances may be scheduled to arrive at stated times, or evacuation on call may be agreed upon.

b. Control. Careful control of the evacuation of casualties to army hospitals is necessary to effect an even distribution of cases, to assure adequate beds for current and anticipated needs, and to route patients requiring specialized treatment to the proper installations. This control is coordinated by the evacuation officer of the army surgeon's office. An efficiently working evacuation system will decrease the number of times a patient is handled between the division clearing station and the army hospital, and between one army hospital and another; it will also prevent the driving of ambulances to several installations in the attempt to find beds for patients. Rigid control is maintained especially for the evacuation of casualties in need of surgery. Without this control, backlogs of patients awaiting surgery will occur in the hospitals closest to the combat action. Sound professional judgment must be exercised in the division clearing station in deciding whether or not a patient is nontransportable, must be evacuated to a nearby hospital, or can stand a trip farther to the rear.

c. Records. Army medical transport is sent to the clearing station that is to be evacuated. The evacuation officer of the clearing station delivers the evacuees to the individual in charge of the ambulance(s) and with them a check list upon which are entered the name, serial number, grade, and organization of each evacuee, together with the diagnosis and a *statement of the limits of time and space within which he can safely be transported.* A separate check list must be prepared for each ambulance load. The individual in charge of the ambulance(s) receipts for the evacuees by signing a copy of the check list, which receipt is retained by the evacuation officer. The individual in charge of movement must check each evacuee against the check list as he is loaded, and insure that a properly completed emergency medical tag is securely attached to each patient.

d. Loading Evacuees. The evacuation officer of the clearing station is responsible for the loading of evacuees on the army medical transport. He determines the position, sitting or prone, in which each evacuee shall ride.

e. Responsibility. Responsibility for the evacuees passes to the army when all have been loaded and receipts for them have been signed by the convoy commander.

f. Care and Treament En Route. It is the responsibility of the clearing station evacuation officer to inform the individual in charge of ambulance(s) of any special attention that may be required by an evacuee en route. This procedure is necessary whether or not such information appears on the check list or on the emergency medical tag of the evacuee. It is the responsibility of the individual in charge of ambulance(s) to see that proper investigations are made en route for the safety and comfort of the casualties.

g. Ambulance Control Points. It is often desirable to establish ambulance control points along the evacuation route. The primary purpose of these points is to direct ambulance loads to the proper hospitals in accordance with the army evacuation and hospitalization plans. These points are usually operated under the supervision of medical groups using units under their control. They serve to control the flow of patients to hospitals in support of the corps in whose area they operate. Patients are diverted to these hospitals in accordance with directives of the army surgeon. Control points are not stations for the routine examination and treatment of casualties en route.

h. Delivery of Evacuees. The bed status or surgical backlog of hospitals to the rear of the control points may necessitate diverting ambulances of the original convoy to two or more hospitals. The serious condition of one or two patients in the group may require that a separate vehicle proceed to the nearest hospital, while the rest of the ambulances go farther to the rear.

i. Feeding En Route. When schedules are made for the day's evacuation, an effort must be made to avoid having casualties on the road during mealtime. Receiving hospitals must be kept informed of the expected time of arrival of ambulance convoys to enable the hospital commander to make necessary plans and arrangements for the receipt and feeding of evacuees. If an ambulance haul is over three hours, additional facilities should be established en route, preferably at the ambulance control points, for messing, examination, and emergency treatment of evacuees.

j. Property Exchange. The army ambulances carry forward sufficient equipment to effect property exchange. The clearing station is responsible for the actual exchange of property, which is checked by a noncommissioned officer.

k. Communications. An infallible system of communications must be established for the control of evacuation, because it is not unusual during combat for the entire evacuation pattern to be changed from day to day, or even several times in one 24-hour period. Since a change of plans affects several hundred or thousand

battle casualties, it is essential that a shift from one plan to another be accomplished smoothly and rapidly.

l. Vehicle Markings. Vehicles used for the evacuation of casualties should be clearly marked with the Geneva Cross, provided such practice does not prejudice combat.

256. EVACUATION DURING THE ASSAULT PHASE OF AN AMPHIBIOUS OPERATION

During the assault phase of an amphibious operation, evacuation of casualties is from the invaded shore to friendly shores utilizing all available assault craft to transport casualties from the beaches to troop transports designated for the care of casualties. Until such time as fixed hospitals are established on the invaded shores and air strips are available for air evacuation, evacuation by sea is the only method of removing casualties from the beachhead.

a. The medical plan for amphibious operation must include specific instructions relative to the use of assault shipping for evacuation. Such use of assault craft must be further coordinated with the surgeon, communications zone, theater chief surgeon, and the U. S. Navy.

b. Hospital ships which normally carry medical personnel and supplies for the operation are brought into the area as soon as the tactical situation permits; D + 2 is normally the time of their arrival. Hospital ships act as a floating bed reserve and provide the only beds available to relieve the established shore installations during the beachhead phase of the operation. Without port facilities, hospital ship evacuation is never to be relied upon. Sudden storms, rough seas, enemy action, and lack of suitable small boats may force cancellation of evacuation to hospital ships for hours or days.

c. The army evacuation officer will require detailed information from each hospital and clearing station regarding their bed status and number of patients awaiting evacuation, so that immediate advantage can be taken of any opportunity for seaward evacuation.

257. AIR EVACUATION

Planes are called for on the basis of anticipated needs and also to meet emergencies that may suddenly fill army hospitals to capacity. Air evacuation is directly dependent on enemy action, weather conditions, and the availability of aircraft. It is advisable to establish holding installations adjacent to air evacuation loading points in order to expedite the loading of planes and to provide

medical care for patients awaiting transportation if planes fail to arrive.

It is absolutely essential that a system of property exchange be established.

258. EVACUATION POLICY

It is not advisable for the army surgeon to recommend a long-range evacuation policy for the field army area. Many factors which may vary from day to day affect the length of time patients may be held in mobile hospitals. Among these are the admission rate, the rate of dispositions to duty, the total number of beds within the field army, the capabilities of the professional staffs of the army hospitals, the tactical situation of the field army, and the availability of communications zone transportation and hospitals.

a. In a Static Situation. During a slowly moving or stabilized situation when patients are received at a fairly constant, moderate rate, hospitals may be permitted to approach the saturation point by retaining all patients who do not require treatment in a general hospital. In such a situation, hospital beds totaling 5 percent of the field army strength will approach a balance between the admission rate and the disposition rate, and reduce the number of patients evacuated out of the combat zone. The evacuation policy may vary from thirty days to the limit of the theater evacuation policy.

b. During Heavy Combat. When heavy combat results in the flow of a large number of casualties, the evacuation policy must be adjusted to make beds available for current and anticipated needs, and as a result the number of days each man spends in a field army hospital decreases. Evacuation policies may differ among the hospitals in the army area, depending on their location, facilities, staffs, and the type of patients they receive. The forward displacement of hospitals reduces temporarily the number of beds available for casualties and results in a greater number being evacuated to the communications zone.

c. Control. Policies for the retention and disposition of patients are established by the army surgeon and are put into effect by the hospitalization officer. It is impossible to divorce hospitalization from evacuation, supply, and the consultation service; therefore, close coordination of all subsections of the surgeon's office is essential in the control of hospitalization. Policies and directives concerning hospitalization are usually conveyed to subordinate commanders by means of informal, oral orders.

259. HOSPITALIZATION

The hospitalization of all serious cases in the most forward unit should be avoided. Many serious cases are not harmed by a reasonable amount of travel, and such travel is desirable when it delivers them to a hospital where prompt, unhurried treatment can be given. Medical cases also should be distributed to evacuation hospitals according to type and professional capabilities of hospital staffs. A disproportionate number of medical cases in rear units and a similar overabundance of surgical cases in forward units throw out of balance the work of the professional staffs. Evacuation hospitals are staffed to function efficiently with a combination of medical and surgical and serious and mild cases. Evacuation is controlled to effect a distribution of cases so that each can receive the treatment demanded by his condition.

a. Principles. The employment of mobile and semimobile hospitals in the combat zone is governed by two basic principles: first, hospitalization is provided as close as practicable to the troops requiring it; and second, the maximum number of men are returned to duty within the combat zone in order to conserve the fighting strength of the combat troops.

b. Types and Functions of Hospitals. Mobile army surgical hospitals (60-bed), evacuation hospitals-semimobile (400-bed), evacuation hospitals (750-bed), and convalescent centers (1,500-patient) are normally employed in the combat zone. Units for the treatment of certain conditions, e.g., neuropsychiatric disorders, may be established by the field army surgeon by the addition of professional detachments and extra equipment to separate clearing companies.

(1) *Mobile army surgical hospitals* (60-bed). This unit furnishes special facilities for immediate surgical aid to such casualties as require it, and they hospitalize casualties whose condition will not permit further evacuation with safety. Such patients are known as *nontransportables.* In addition, when the division clearing station it is supporting must be moved, the surgical hospital may take over and care for all the casualties of the former until they can be evacuated.

(2) *Evacuation hospitals-semimobile* (400-bed). The semimobile evacuation hospital is an independent, self-supporting unit under the control of the army surgeon. It provides hospitalization for all classes of patients within the combat zone and prepares patients for further evacuation. It receives patients through direct admission, from

division clearing stations, clearing stations supporting corps and army troops, surgical hospitals, and from dispensaries and aid stations of units within the vicinity. This unit is normally the rear terminus of the army chain of evacuation.

(3) *Evacuation hospitals* (750-bed). This evacuation hospital functions as does the 400-bed type in that it receives all classes of patients and prepares them for further evacuation.

(*a*) It may be placed well forward initially in an attack, remaining in position while the more mobile evacuation hospital (400-bed) by-passes it as the attack progresses. After it is by-passed by the evacuation hospital (400-bed), it will remain in position and will begin to receive casualties from army clearing stations that are supporting army troops as they move forward. Whenever an evacuation hospital (400-bed) becomes suddenly overtaxed, the overflow casualties may be diverted to the 750-bed unit.

(*b*) The greater bed capacity of this unit is considered essential in order to permit it to support the large troop concentrations in corps and army, while it still performs the same functions of the evacuation hospital (400-bed).

(4) *Convalescent centers* (1,500-patient). The convalescent center receives patients from combat zone hospitals and other medical elements. It provides convalescent care and rehabilitation when such rehabilitation can be accomplished within the time limits established by the field army commander on recommendation of the army surgeon.

c. Location of Hospitals. Hospitals must be located near the troops supported and accessible, both from the front and the rear, by normal means of transport. The sites selected should be on well-drained ground with a natural protection from flash floods, high winds, and excessive heat or cold, and with space for hospital expansion if it should become necessary. Sites are undesirable if they cannot be easily evacuated and cannot effectively display the Geneva Cross. They should not be located near dumps, important crossroads, or other potential targets of enemy air attacks; and should not be placed in buildings, unless the structures are clean, well maintained, have ample utilities, and can be quickly adapted to use by the mobile hospital.

260. SPACE REQUIRED BY UNITS IN THE FIELD

The following is the *minimum* ideal space required for mobile hospitals operating in tents:

Clearing platoon	75 by 75 yards.
Mobile army surgical hospital	75 by 75 yards.
Evacuation hospital (SM) (400-bed)	200 by 200 yards.
Evacuation hospital (750-bed)	300 by 300 yards.
Convalescent center (1500-patient)	500 by 500 yards.

Circumstances influence the size of the plot of ground required. In inclement weather, if drainage and roads cannot be improved, it may be necessary to move the unit to other ground in the same location. Need for expansion may also create an unexpected requirement for ground; therefore, it is advisable, whenever possible, to obtain a larger area than that indicated above.

261. MEDICAL PLANNING

The army surgeon is responsible for the preparation of the army medical plan, which is based on decisions of the commander. These basic decisions are usually amplified by the general staff sections of army headquarters, thereby giving the surgeon sufficient information on which to formulate his plan. The medical plan is prepared, approved by the interested staff sections, and issued, usually in the form of a directive, through command channels to all units concerned. This plan must be complete, yet concise and devoid of unnecessary details. In it the general policies of the army surgeon are stated, and the plan for operation of the medical service is given. All pertinent data regarding evacuation, hospitalization, and medical supplies are included, together with lists of special equipment to be carried by specified combat units. A miscellaneous section of the plan covers items such as salvage, prisoner of war casualties, civilians, displaced persons, enemy aliens, burial, traffic, stragglers and malingerers apprehended in medical installations, and mail service for patients in hospitals. Instructions are given in the plan, or issued separately, regarding medical records, reports and returns, medical and surgical procedures, and other technical matters. The detailed preparation of the medical plan requires close contact with the theater and communications zone surgeons in order to prevent conflict with policies and procedures established by them. Although the method of staff planning will vary in different headquarters, the general procedure is as follows:

a. Development of the Medical Plan. After receipt of the initial directive which gives information concerning the mission, partici-

pating combat troops, time factors, target area, and target date, the surgeon prepares a recommendation to G–3 containing the types and numbers of medical units required to support the troops involved. This recommendation may include the communications zone units needed initially to support the field army as it moves forward. The recommendation is based on careful consideration of the anticipated number of casualties, the terrain, communication and transportation facilities, the climate, condition of the troops, the medical units available, and other pertinent factors.

b. Movement Planning. When a tentative troop list has been approved by G–3, G–4 requires detailed information concerning each unit including numbers of personnel, the number and type of vehicles, and the bulk and weight of organizational equipment. This information must be exact since it is used to compute the amount of shipping space, air lift, or ground transportation required.

c. Supply Plan. In addition, G–4 will require an estimate of the weight and cubage of medical supplies necessary to support the operation. Sufficient supplies are set up to care for captured enemy sick and wounded according to established policies. Allowance must be made for losses en route, plus replacement factors. It is better to allow for early liberal consumption of essential items such as litters, blankets, cots, blood plasma, drugs, plaster of paris, bandages, gauze, and adhesive tape than to plan too economically, since resupply of medical items is precarious during the first few days of an operation.

d. Embarkation Plan. If the operation is amphibious, the next step in planning is the designation of medical units for each convoy. Provision is made to load sufficient hospitals, surgical teams, supply personnel, and clearing and collecting elements early in the operation to establish adequate medical service. Since evacuation by sea or air is extremely uncertain, sufficient beds must be loaded on an early convoy to hold the anticipated casualties ashore until evacuation is firmly established.

e. Information for Other Staff Sections. The surgeon's study of the forthcoming operation will produce information of value to other staff sections of the headquarters. He must advise G–1 of his casualty estimate, which is required in planning for replacements. The G–3 and G–2 sections must be informed of health hazards that might influence friendly or enemy operations. Medical training in which the troops are known to be deficient must be reported to G–3, with recommendations for corrective action.

f. Appendices. The sanitation appendix containing instructions in the prevention of disease, and the medical appendix indicating the location of hospitals, the location of medical supply installations, and the plan of evacuation are prepared and submitted to the G–4 section for enclosure in the administrative plan.

262. MOVEMENT OF MEDICAL UNITS

It is a responsibility of the field army surgeon to plan for transportation whether it be by motor, train, water, or air. He obtains motor transport for the movement of units whose organic transportation is insufficient for an independent move. This may be done in two ways:

a. By use of vehicles from other units of the medical service. This method is the simpler, when practical, in that it permits all arrangements to be made within the medical service and is advantageous in that the vehicles used are protected according to the terms of the Geneva Convention.

b. By requisition on the transportation section, through G–4, for the necessary number of vehicles. This method has the advantage of using vehicles that are maintained for the transportation of the field army and does not deprive medical units of vehicles for which they have routine use. The disadvantage of this method is its uncertainty. Hospitals usually move when the rest of the army is moving, and Transportation Corps resources may not be able to fill all requirements.

263. REFERENCES

For further information governing field army and corps functions and operations see FM 100–5, FM 100–10, FM 101–5, and FM 101–10.

PART THREE

MEDICAL SERVICE IN THE COMMUNICATIONS ZONE

CHAPTER 14

GENERAL CONSIDERATIONS

Section I. GENERAL

264. INTRODUCTION

Medical service is continuous. It is interzonal and intersectional in character, interzonal in the respect that the efficiency of its operation depends upon the coordination established and maintained between the medical services of the combat and communications zones, and intersectional in that treatment in fixed hospitals and the evacuation of masses of casualties in the communications zone normally cannot be limited to sectional boundaries. Although it is normal in a large theater to decentralize operations to the section commanders, it is essential that adequate control of such operations be exercised by the communications zone commander. Thus, decentralization of control of medical operations to section commanders is normally limited to those activities which do not inhibit the operation of the medical service of the communications zone as a whole. While the communications zone commander is charged with the proper employment of medical troops of his command, he habitually delegates the immediate responsibility for control to his communications zone surgeon.

265. PRIMARY RESPONSIBILITY OF COMMAND

The primary duty of medical troops as of all other troops is to contribute their utmost to the success of the command of which the medical service is a part. It is a fundamental doctrine of command that the commander is responsible to higher authority for all activities of his command. In accordance with this principle the primary responsibility for the performance of all duties assigned to medical troops rests upon the military commander concerned. While the medical service of the communications zone is specifically charged with certain duties, a communications zone commander must employ his medical troops as he employs all other troops, that is, to insure the successful accomplishment of his mission.

266. GENERAL CHARACTERISTICS

a. The communications zone is the area required for the administrative support of the theater as a whole. The nature of its administrative operations in comparison with the ground combat operations of the combat zone implies a passive or static role. However, from the standpoint of medical service this implication is not based on fact. The impetus of medical supply, which constitutes a very small portion of medical responsibility, is from the communications zone to the combat zone.

b. In marked contrast to this is the great mass of work of the medical service in the communications zone resulting from the rearward movement of casualties from the combat zone. Normally it is a function of the communications zone to relieve field armies of their casualties. This requires the evacuation of casualties from hospitals and holding installations of the field armies located well forward in the combat zone. It necessitates the obtaining of areas suitable for development as fixed hospital sites so located as to fit into an efficient evacuation pattern; the provision of fixed hospitalization sufficient to meet anticipated bed requirements at the time required; the arrangement for the evacuation of masses of casualties by train, ship, and plane; and the coordination with other agencies in those matters necessary for the accomplishment of the mission.

c. Long-range planning is required to overcome the relative inflexibility of the medical service of the communications zone and its dependence on other agencies for the efficient fulfillment of its mission.

Section II. ORGANIZATION

267. GENERAL

The communications zone is a subdivision of the theater of operations organized for the administrative support of the combat zone. Depending upon its size, the communications zone may be subdivided territorially into base, intermediate, and advance sections. Normally it is subdivided only to that degree necessary to carry out properly its missions. (See ch. 2.)

268. MEDICAL

The medical organization of the communications zone is subject to extreme variation depending on its size and location, the type of operations, and the desires of the communications zone commander. Normally, however, there are certain principal elements present:

a. The communications zone surgeon and his office.

b. Medical units and detachments concerned with command, evacuation, hospitalization, preventive medicine and laboratory, supply and maintenance, dental service, veterinary service, and miscellaneous types of units and detachments as required.

c. Normally, nonmedical units the size of a battalion or larger assigned to the communications zone are not provided with medical detachments but receive their unit medical service from medical elements providing such service in the area in which they are located. Therefore medical detachments must be provided for the support of nonmedical troops of the communications zone.

Section III. THE COMMUNICATIONS ZONE SURGEON

269. GENERAL

a. The communications zone surgeon is a member of the special staff of the communications zone commander, and as such he has access to all other members of the communications zone general and special staffs and, when necessary, to the communications zone commander himself. The specific functions of the communications zone surgeon in any instance depend upon two basic considerations: first, on the extent to which administrative responsibility is delegated or decentralized to the communications zone commander by the theater Army commander; and, second, on the extent to which the communications zone commander decentralizes operations to his subordinate command sections.

b. Decentralization of medical functions to section commanders is limited to those activities which do not interfere with the operation of the medical service of the communications zone as a whole. Therefore, communications zone commanders normally retain central control of construction standards for fixed hospitals; the general location, relocation, opening, and closing of fixed hospitals; and the mass evacuation of casualties with disregard to sectional boundaries.

c. In a large theater, the communications zone commander will usually decentralize operations to a greater extent than in a smaller theater. The communications zone surgeon is primarily a staff officer supervising the technical activities of his service throughout the communications zone through technical channels. He does not directly command the medical units within sections. Such control is normally delegated to the commander of the section in which the units are located. Orders regarding these units or their employment must pass through command channels.

d. In a small theater, the communications zone is not normally divided into subordinate sections by the commander, and he may charge the surgeon with the conduct of medical operations throughout the communications zone and with rendering medical support to all Army units and such Navy, Air Force, Allied, and other forces as may be appropriate.

270. RESPONSIBILITIES

The communications zone surgeon is normally responsible for the following functions:

a. The provision of information and technical advice to the communications zone commander and his staff, keeping them constantly informed as to the condition, capabilities, and requirements of the medical service in respect to personnel, equipment, and the establishments required.

b. Operational control of all medical units not assigned or attached to sections of the communications zone or to other subordinate commands.

c. Recommendations for procurement and employment of medical troops and their allocation to sections or other subordinate commands of the communications zone.

d. The supervision of training of communications zone medical units; training in sanitation, first aid, and hygiene for all troops of the communications zone; and the conduct of schools and special training activities in accordance with policies established by higher authority.

e. The determination of requirements for and procurement of medical, dental, and veterinary supplies within established policies; the supervision of the operation of medical depots and medical sections of general depots including the storage, distribution, issue, and documentation of supplies; the supervision of medical maintenance and repair facilities; and processing of captured medical supplies.

f. The preparation of plans for the medical service of the communications zone based on command decisions and the supervision of the medical service throughout the communications zone, including the system of evacuation and hospitalization; methods of professional treatment and the distribution of specialized officer personnel in order to maintain the highest standards of medical practice; preventive medicine programs for all localities in which troops are located, to include vaccination, inoculation, and other protective measures; the adequacy of the soldier's ration from the standpoint of health; the inspection of meat, meat foods, and dairy

products; the medical aspects of the control and prevention of disease; the conduct of special investigations and surveys relating to the health of all troops; the provision of adequate laboratory services; and the public health aspects of military government and civil affairs activities when applicable.

g. The compilation of medical statistics pertaining to the communications zone and for all theater Army forces when directed.

h. The making of technical inspections and execution of such technical reports on matters pertaining to the medical service as are necessary to insure the proper execution of the plans of the commander.

i. Coordination with all Army and other agencies which are necessary for the accomplishment of his responsibilities.

271. RELATIONSHIPS OF THE COMMUNICATIONS ZONE SURGEON

a. With the Theater Army Surgeon. The theater Army surgeon does not command the communications zone surgeon, but he does exercise general technical supervision over him and over his service as a whole. Theater Army forces operational plans for the medical service which affect the communications zone are issued through command channels. However, the theater Army surgeon makes such technical inspections and receives such technical reports as are necessary to insure the proper execution of those plans.

b. With Subordinate Surgeons. Similarly the communications zone surgeon does not command the surgeons of subordinate commands, but he does exercise general technical supervision over them and over their services as a whole. Communications zone operational plans for the medical service which affect lower commands are issued through command channels only. However, the communications zone surgeon makes such technical inspections and receives such technical reports as are necessary to insure the proper execution of those plans.

c. To Army Field Surgeons. For relationships of the communications zone surgeon to field army surgeons, see chapter 13.

272. OFFICE OF THE COMMUNICATIONS ZONE SURGEON

There is no established organization for the office of the surgeon of the communications zone. The internal organization of his office is the prerogative of the surgeon subject to the approval of the communications zone commander. Its size and composition vary in accordance with the strength of the theater, the nature of the military operations to be conducted, and the specific functions assigned. Such functions depend in large measure on the

extent to which administrative responsibility is decentralized to the communications zone commander by the theater Army commander and by the communications zone commander to subordinate commands. The surgeon's office includes those subdivisions necessary to enable the surgeon to perform his assigned functions. In addition to the surgeon and his deputy or deputies, there are various functional divisions. In order to reduce the number of individuals reporting directly to the surgeon or his deputy, certain of these divisions may be combined with the creation of appropriate subdivisions. A general outline of the functions performed for the surgeon by each of the principal divisions is as follows:

a. The administrative division performs the administrative activities of the surgeon's office; maintains a central file and message center; exercises security control within the office; maintains central supply, drafting, and publications facilities; conducts public information activities; and controls the transportation assigned to the surgeon.

b. The field survey division assists the surgeon in the general inspection and supervision of all medical installations and all phases of medical service.

c. The historical division maintains liaison with the historical sections of theater Army headquarters and other appropriate agencies, collects and analyzes source material for medical histories, collects and prepares illustrative material, prepares preliminary historical accounts with complete documentation, and formulates policies for collection and compilation of historical records.

d. The hospitalization division formulates hospitalization plans and policies; takes action to implement approved plans and policies; supervises the application of theater and communications zone policies and procedures relating to hospitalization; makes reconnaissances and acquires sites for fixed hospitals in locations approved by theater headquarters; maintains liaison with appropriate agencies for the determination of hospital construction policies; approves design and layout plans of fixed medical installations; opens and closes fixed hospital plants when directed to do so by theater headquarters; supervises and standardizes hospital administration; conducts special investigations and inspections pertaining to hospital administration and construction, initiating corrective action pertaining thereto; formulates policies governing convalescent care; prepares medical rehabilitation programs; supervises training of special personnel to assist in convalescent training; and audits hospital funds.

e. The medical records and statistics division collects, processes, and analyzes sick and wounded statistical data; develops statistical

curves relating to changes of status and accumulations of hospitalized patients; maintains current medical service indices; and processes and maintains files on material for machine tabulation. The medical records division may be charged with the compilation of medical records for all theater Army forces.

f. The nursing division develops nursing policies, reviews nursing procedures, maintains records and reports on officers of the Army Nurse Corps, inspects and supervises the nursing service, reviews personnel policies with respect to the Army Nurse Corps, supervises nurse training and nurse welfare, and recommends the assignment of Army Nurse Corps personnel.

g. The operations division prepares and coordinates medical planning and, based on command decisions, takes action to implement such plans; collects and analyzes operational statistical data; and develops hospitalization and evacuation requirements. It projects theater requirements for fixed hospitalization and evacuation based on present and past casualty experience data; formulates requirements for medical units on the communications zone troop basis; recommends the flow of communications zone medical units on the troop basis from the zone of the interior to the theater; controls the allocation of medical units to major subordinate commands; exercises technical control and supervision of the evacuation of sick and wounded personnel; and maintains liaison with appropriate agencies for rail, sea, and air evacuation. It analyzes tables of organization and equipment and, based on experience in the theater, recommends changes that are required. It promulgates training directives for medical units within those policies established for theater Army forces. It supervises medical service technical training; and collects, evaluates, and disseminates intelligence of a medical military nature within the policies established by the theater Army commander.

h. The personnel division formulates personnel policies; conducts personnel activities; effects personnel adjustments between major subordinate commands; and reviews recommendations for promotion, reclassification, awards, and decorations. It maintains records of medical service personnel by professional qualifications and military occupational specialties, and effects the readjustments of key personnel throughout subordinate commands in accordance with established policies of the theater Army commander.

i. The professional services division reviews and standardizes treatment procedures; supervises and evaluates the professional care of patients; recommends the assignment of key personnel; and supervises the activities of medical, surgical, and neuro-

psychiatric consultants including personal consultation service. It cooperates and participates in professional educational programs and supervises the selection of personnel for professional training, supervises essential researches in military medicine and surgery, and recommends physical standards for retention in the theater of officer and enlisted personnel in all branches of the military service in accordance with policies established by the theater Army commander.

j. The preventive medicine division formulates public health and preventive medicine policies; plans disease control programs; and assists in the solution of problems of sanitation, nutrition, and insect control. It formulates policies and determines requirements for laboratory service, develops plans for military occupational hygiene, investigates outbreaks of communicable disease, and conducts epidemiological research. It determines equipment requirements for gas, radiological, and biological casualties; and prepares training directives and coordinates the execution of such directives in the medical aspects of chemical, radiological, and biological defense.

k. The supply division conducts supply planning, supervises the operation of the medical supply system of the communications zone, and formulates supply and fiscal policies. It determines theater Army requirements and excesses of military medical supplies in the event that this function is decentralized to the communications zone commander by the theater Army commander. It secures medical supplies for military, civil affairs, and military government agencies within the policies established by the theater Army commander. It supervises the distribution, storage, and issue of medical supplies for military, civil affairs, and military government agencies; and supervises the receipt, classification, storage, and distribution of captured medical supplies. It supervises the obligation of funds pertaining to the medical service. It maintains stock control records, supervises depot operations, and medical maintenance and repair activities.

l. The veterinary division provides professional advice and administrative assistance on matters relating to the veterinary service, formulates plans and policies for the operation of the veterinary service, and supervises the inspection of animal food products and their sources. It accomplishes inspections of storage plants, depots, ice cream plants, and those aspects of transportation agencies as concern these products. It supervises the professional care of public animals and their environmental sanitation; and processes veterinary reports, returns, and records.

m. In the event there are 10 or more members of the Women's Medical Specialist Corps on duty in the zone, normally the senior officer of that corps on duty nearest to the office of the surgeon of the communications zone will be designated the additional duty as advisor to the surgeon on matters pertaining to the Women's Medical Specialist Corps.

n. The injection of new factors into the medical problem may indicate the creation of additional divisions either to supervise new functions or to devote more specific attention to old functions previously allocated to other divisions.

273. REFERENCES

For further information regarding characteristics and organization of the communications zone, see FM 100–10, FM 101–10, and FM 100–15.

CHAPTER 15

EVACUATION

Section I. BASIC CONSIDERATIONS

274. GENERAL

Evacuation is one of the major tasks of the communications zone commander. Prompt and efficient evacuation is necessary in the theater of operations in order to prevent the adverse effect of unevacuated casualties on combat efficiency and to distribute sick and wounded in available hospitals where they can receive the highest standards of medical care. Since it is a fundamental principle of the medical service to evacuate casualties no farther to the rear than their condition or the military situation warrants, provision must be made throughout the chain of evacuation for the sorting and retention of nontransportables until such time as they can be moved without aggravation of their disabilities. Sorting normally takes place at each installation where there is a change in the mode of transportation or where responsibility for evacuation is transferred. Evacuation and hospitalization are twin considerations, and each depends upon the other for ultimate efficiency. Long-range planning and intimate coordination of these programs are necessary for maximum efficiency. In order to shorten the chain of evacuation and to contribute to an efficient evacuation pattern, the initiation and development of the fixed hospitalization program of the theater is normally instituted without delay.

a. The availability of sufficient transportation by ship, plane, train, or vehicle determines the extent and degree to which adequate evacuation can be carried on. However, whenever the situation permits, first consideration will be given to evacuation by air. Except for ambulances the medical service controls no other transportation for evacuation. It is dependent upon the particular service (Air Force or Navy) controlling planes and ships or the command controlling trains or other forms of transportation for additional means for evacuation. The communications zone surgeon must therefore continuously forecast the requirements for land, air, and water evacuation, so that coordination for its procurement may be effected sufficiently in advance of its need.

b. Since casualties are human beings and must be handled accordingly and since maximum use must be made of transportation, sufficient manpower and ambulances are necessary to effect, within

a minimum period of time, the transfer of masses of casualties from one type of transportation to another and from such transportation to hospitals.

c. Rapid means of signal communication are essential to any effective evacuation system.

275. CONTRAST WITH COMBAT ZONE EVACUATION

a. In the combat zone, evacuation involves the movement of patients in a fairly continuous flow directly to hospitals, normally by motor ambulance, while, in the communications zone, patients are moved intermittently in large masses by train, plane, ship, and vehicles. In the communications zone, patients are delivered to airfields and railroad stations in the vicinity of the hospitals since trains and planes cannot transport patients directly to hospitals. Therefore, on the arrival of planes and trains at such fields and stations, it is necessary to move the mass of patients to hospitals. For this purpose sufficient numbers of litter bearers and motor ambulances are required to unload and transport peak loads of patients expeditiously. The numbers of such litter bearers and ambulances required is dependent upon the volume of casualties, traffic, and the distance involved. When relatively few patients arrive and the distances involved are not too great, general hospitals may be able to effect this transfer of patients with their organic means. However, evacuation between hospitals of the communications zone and to ports of debarkation by trains, planes, or ships entails peak casualty loads and a concomitant augmentation of litter bearer and ambulance elements.

b. The location of mobile hospitals of the combat zone has relatively little effect on the pattern of evacuation in that zone, while hospitals in the communications zone, when once established, fix the evacuation pattern. General hospitals established without regard to rail or air service continue to jeopardize efficient evacuation as long as they are in operation. Although in many cases the need for fixed beds cannot always be delayed to await the determination of ideal evacuation patterns, general hospitals must be located, so far as practicable, with due regard to this factor. An efficient pattern contributes to the reduction of dispersion factors, the amount of movement of casualties, the means required for the accomplishment of evacuation, better utilization of fixed beds, and selective care of certain types of casualties.

Section II. EVACUATION FROM THE COMBAT ZONE TO THE COMMUNICATIONS ZONE

276. RESPONSIBILITY

a. The evacuation of casualties from the combat zone and their movement within the communications zone is a responsibility of the communications zone commander. The field armies of the combat zone must notify the communications zone commander of their evacuation requirements, since he must provide the necessary means for surface evacuation and arrange with the theater Air Force for the provision of necessary personnel and aircraft for air evacuation.

b. The coordination of casualty evacuation between the zones of the theater is the responsibility of the theater commander. However, in those instances in which the theater Army commander is delegated the responsibility for both the tactical and administrative operations of Army forces, the theater Army commander normally executes this coordination.

277. HOLDING UNITS

a. No level of medical service is normally responsible for the evacuation of casualties beyond its rearmost medical installation. In the case of field army medical service this rearmost unit may be either an evacuation hospital or a *holding* unit. During the time holding units are established and maintained by a field army, they are considered medical installations of the field army and operate under the control of the army commander. On the other hand, when responsibilities for holding units at a particular site have been taken over by the communications zone, even though the installation may be within the combat zone, it is considered a communications zone installation and is so operated and controlled. It is therefore necessary that units be made available to both the combat and communications zones for the establishment of holding installations capable of properly performing their functions.

b. It is a general principle that holding installations are initially established and operated by field armies in the vicinity of railheads and airfield utilized for evacuation of their casualties to the communications zone. As soon as practicable, however, the communications zone relieves field armies of the responsibility for such installations.

278. SURFACE EVACUATION

Although surface evacuation from the combat zone is the sole responsibility of the communications zone commander, the pre-

dominant means of surface transportation employed may be ship, rail, or motor vehicle, dependent upon the geography of the theater. Where distances are great and railways are available, they constitute the most efficient means of surface transportation. Hospital trains are allocated to the communications zone, and their movement is controlled by the agency controlling railway movements.

a. Close coordination must be maintained between the surgeons of the communications zone, the advance section of the communications zone, and the supported field armies. This coordination is maintained through the establishment of a medical regulating section either as a subdivision of the office of the communications zone surgeon in a small theater or, in the office of the surgeon, advance section in a large theater. This subdivision, through the theater agency controlling all transportation, arranges for the allocation of transportation necessary for the evacuation of casualties from the field armies to the communications zone. Each day the section ascertains from the army surgeons the location of each field army evacuation hospital, the number of patients in each, the number of casualties in each awaiting evacuation, and the number of patients awaiting evacuation from field army holding units. The section must know constantly the number of patients awaiting evacuation from holding units under the control of the advance section. Daily the communications zone surgeon provides the medical regulator with information as to the number and location of beds available to which patients may be evacuated. The medical regulator requests of that agency of the theater having movement control of transportation the appropriate type of transportation for the evacuation of medical units of the field army. He notifies the medical installations which are to be evacuated, the medical installations to which patients are to be transported, and the surgeon of the communications zone of pertinent information regarding the movement. If evacuation is by train, bed credits in specific communications zone hospitals are of little use to the medical regulator unless they amount to a minimum of 300 beds, that is, sufficient to accommodate one trainload of patients.

b. In the event the communications zone is small and not divided into sections, the medical regulator is a representative of the communications zone surgeon and coordinates movements with the transportation agency concerned.

c. Necessary deviations from established policies, which are in no way prejudicial to the general pattern of evacuation as outlined, are instituted by mutual agreement between the surgeons

of the combat and communications zones whenever such deviations are considered to be to the best interest of the evacuee and whenever they effect the maximum utilization of available facilities.

d. In evacuation from the combat zone by motor vehicle or in shipping, the procedure is modified in accordance with the type of transportation used.

279. AIR EVACUATION

Air evacuation in the theater of operations is the responsibility of the theater commander. He directs subordinate commanders to assume their proper responsibilities in order to insure the efficient operation of this service and to make use of available air transportation for units.

a. The theater Air Force commander provides the necessary planes and personnel for the care and treatment of casualties while in flight. Except in emergency, only multi-engined aircraft, properly equipped for evacuation of patients, will be utilized for this purpose. Whenever possible, casualties are delivered to airfields convenient to fixed hospitals unless military necessity requires that they be delivered elsewhere. When required to land at emergency airfields where there are no provisions for the reception of casualties, temporary medical care is normally provided by the Air Force from local resources.

b. The field army surgeon and the surgeon of the advance section are responsible for the selection of cases to be evacuated by air from medical installations under their respective control. It is essential that the medical regulator be cognizant of such information in order to adequately coordinate surface and air evacuation. Within its area each field army is responsible for the following functions:

(1) The establishment and maintenance of medical holding facilities in the immediate vicinity of each airfield from which casualties are to be evacuated.

(2) Loading of casualties on aircraft.

(3) The provision of additional equipment made necessary by the impracticability of property exchange with air evacuation units.

(4) Necessary liaison with the Air Force concerned.

c. It is highly desirable for Air Force medical service personnel to accomplish the final screening of patients prior to actual flight.

d. As in surface evacuation, the communications zone surgeon daily allocates bed credits to the medical regulator. It is mandatory

that the closest coordination be established between the medical regulator and the Air Force agency controlling the planes in air evacuation to enable that agency to be constantly informed of air evacuation requirements.

e. The communications zone commander is responsible for the reception of patients evacuated by air from forward areas and for the distribution of these patients to communications zone hospitals. Within his zone of responsibility, he is charged with the following functions:

(1) The establishment and maintenance of such holding units in the immediate vicinity of each airfield as may be required for the evacuation and/or reception of casualties transported by air.
(2) The loading and unloading of planes.
(3) The necessary coordination with the Air Force.

280. WATER EVACUATION

This method of evacuation is utilized primarily in amphibious operations. Casualties occurring en route to landing beaches and on landing craft either remain aboard transports and other craft, or may be transferred to appropriate ships for care and treatment. Certain assault type landing ships are provided and staffed for use as floating hospitals for the care of patients pending transfer to hospital ships.

a. During the initial assault phase ashore, casualties are collected and treated by organic medical personnel, and therefrom evacuated by designated landing craft to ships of the assault force. Casualties evacuated by craft from the beaches are transferred to hospital ships especially fitted for this purpose.

b. As soon as possible, airfields established ashore are utilized for air evacuation, since hospital ship evacuation without port facilities is extremely unreliable as a result of storms and enemy action. Until such time as port facilities are available, however, maximum use must be made of shore-to-ship and air evacuation. After the institution of port facilities, evacuation by water assumes a normal pattern.

Section III. EVACUATION TO THE ZONE OF THE INTERIOR AND INTRA-COMMUNICATIONS ZONE EVACUATION POLICIES

281. EVACUATION TO THE ZONE OF THE INTERIOR

Responsibility for surface evacuation from the theater to the zone of the interior lies with zone of the interior agencies. The

responsibility of the communications zone commander ceases when casualties are loaded aboard the transportation employed. However, the communications zone may be delegated the responsibility for providing some personnel to assist in the care and treatment of patients en route.

a. The communications zone commander is responsible for the transportation of casualties to ports and airfields and for their loading into the appropriate transportation, and, in addition, establishes movement priorities for casualties in transportation either by water or air.

b. Air transportation to the zone of the interior is the responsibility of the Military Air Transport Service. Responsible commanders will utilize this service in the evacuation of military personnel including patients of the armed forces.

282. INTRACOMMUNICATIONS ZONE EVACUATION POLICIES

As in the case of the combat zone, the communications zone surgeon has certain established policies in regard to the hospitalization of patients while under his jurisdiction. These policies, known as evacuation policies, provide for the length of time that any casualty will remain at any communications zone installation. For further information in regard to such policies, see chapter 17.

283. REFERENCES

For further information regarding evacuation see FM 8–35 and FM 100–10.

CHAPTER 16

HOSPITALIZATION

Section I. GENERAL

284. GENERAL

The communications zone provides hospitalization for all patients originating therein and those received from the combat zone. The number and type of hospitals depend upon the location of the communications zone in relation to the zone of the interior, the extent of the zone, troop strength of the theater, the nature of military operations, the character of hostile resistance, and the theater evacuation policy. In the communications zone, it is essential to anticipate hospitalization requirements and to begin construction in advance of the time that hospitals are to be occupied. Existing shelter in permanent buildings is utilized in the establishment of fixed hospitals whenever it is advisable. Otherwise, it may be necessary to provide accommodations by new construction or by using tentage. Hospitals are marked by the Geneva cross in accordance with instructions of the theater commander.

285. CONTRAST OF HOSPITALIZATION IN THE COMMUNICATIONS ZONE WITH THE COMBAT ZONE

a. General Points of Contrast. Hospitals of the combat zone are characterized by their mobility, those of the communications zone by their immobility. In the combat zone, evacuation and mobile army hospitals can be established in a matter of hours; they can be established in the field under tentage or under other shelter without impairment of their functions; they can be prepared for movement in several hours after evacuation of all casualties; they can be transported to a new location rapidly; and they possess the flexibility inherent in semimobile and mobile units. In absolute contrast, communications zone general and station hospitals, except when located in existing hospital plants, require many weeks for plant development to the stage in which they can function normally. They are dependent upon the availability of engineer technical assistance, labor, and supplies. They require extensive and proper shelter, utilities, and amenities. After once having been established, preparation for movement after all patients have been evacuated can only be executed with great difficulty, time-consuming effort, and a major loss of fixed bed potential. Such

movement is largely dependent on whether or not fixed hospitals are sheltered under tentage, in prefabricated buildings capable of disassembly and reassembly, or in permanent buildings. Once established, the only possible flexibility existing in a fixed hospital is measured by the number of expansion beds that are provided over and above its rated patient capacity. After development has once been started on a fixed bed installation, it is undesirable to change its location because of the time and expense involved unless major tactical, strategic, or logistical conditions dictate such change.

b. Time Lag. Mobile and semimobile hospitals of the field army can be established without appreciable time lag provided personnel, equipment, and transportation are readily available. In the communications zone, the extensive time lag existing between *planned* fixed beds and fixed beds ready for occupancy by patients requires long-range planning based on the best information available regarding the strategic, tactical, and logistical plans of the theater. Changes in the tactical, strategic, and logistical situations frequently occur between the initiation of construction and its completion. This requires considerable advanced planning and coordination with command agencies in order to have fixed beds available to provide medical support at the proper place and within the proper time. Delay in the implementation of the fixed hospitalization program until the location of hospitals is ideal will increase the time lag necessary to develop such hospitals and will not provide the fixed beds required at the time needed.

c. Construction Standards. Mobile and semimobile hospitals of the combat zone normally are not concerned by construction standards, except as they may be affected by the need for winterization, insectproofing, and protection from excess heat. Such units can be placed in operation normally without dependence on extra construction, and may utilize permanent buildings whenever such exist. In the construction of fixed hospitals, however, it is necessary to develop long-range design and construction standards and, in cooperation with the corps of engineers, to provide shelter and utilities. The supplies necessary for the construction of hospital plants are provided by the engineers. Normally this is not necessary in the combat zone. At times it may be possible to locate fixed hospitals in existing hospital plants, if such plants are of sufficient size; to enlarge existing hospital plants; to provide shelter under tentage; to construct prefabricated buildings; or to utilize a combination of these methods. The principle to be followed is that the most adequate shelter for the purpose will be made available for hospitalization.

d. Volume. Mobile and semimobile hospitals of the combat zone preserve their tactical mobility by transfer of their patients to the hospitals of the communications zone. However, the hospitals of the communications zone are the rear termini of the evacuation chain in the theater. They must be able to absorb a large volume of patients and, either by return to duty or evacuation to the zone of the interior, reduce their patient load. The only reserve provided is by means of expansion beds which is an emergency measure. It is just as essential to provide for these emergency expansion beds of fixed hospitals as it is to provide a reserve in tactical operations.

Section II. TYPES AND ORGANIZATION OF HOSPITALS

286. GENERAL

Hospitals of the communications zone are classified and organized on the basis of bed capacity, type and extent of medical care performed, and the primary mission for which they are responsible.

287. GENERAL HOSPITALS

a. General hospitals are fixed installations (1000-, 1500-, and 2000-bed capacity) designed for complete definitive treatment of all types of patients in the theater of operations. Normally the majority of their patients come from the combat zone. As shown previously, general hospitals do not possess the capabilities or characteristics of mobile or semimobile hospitals. The size of the hospital and the fact that it is designed to be provided with adequate shelter emphasize those differences.

b. The general hospital is composed of four physical elements: first, a professional complement comprising the professional personnel; second, an administrative complement comprising the personnel required for the performance of the administrative and housekeeping services; third, an element comprising all equipment including motor transportation; and four, a plant. Delay in the provision of any of these elements may adversely affect the timely opening of the hospital.

288. STATION HOSPITALS

Station hospitals are fixed hospitals which normally serve a limited area to which assigned and routinely do not receive patients from the combat zone. They are organized and classified according to their patient capacity (25 to 750 beds). They are

established at locations in the communications zone where there is a sufficient concentration of military personnel to require local hospitalization. In the establishment of station hospitals, the same general problems arise as in the establishment of general hospitals.

289. FIELD HOSPITALS

Field hospitals are organized and designed to give treatment comparable to that of the station hospital, where it is impracticable to establish station hospital; to provide hospitalization in areas of transitory troop concentrations; or to meet sudden demands for hospitalization. In some cases they may be utilized to supplement general or station hospitals in order to temporarily provide hospitalization while construction for general or station hospitals is under way. In addition, they may be utilized to establish holding installations. The hospital is organized into three identical hospitalization units, each one of which is capable of being established under tentage. It is capable of rapid movement and independent action when adequate transportation is furnished. The total hospital with the three hospitalization units has a rated bed capacity of 400 patients.

290. CONVALESCENT CENTERS

Although convalescent centers, communications zone type, are classed as fixed installations, they are not charged to the theater as fixed beds. These units are adjuncts to fixed hospitals and are not capable of providing definitive treatment comparable to that afforded by station and general hospitals. The convalescent center of the communications zone has a normal rated capacity of 3000 patients. This center provides convalescent facilities where patients may convalesce and receive reconditioning training prior to return to duty. It receives patients from other hospitals within the theater of operations who need no further hospital treatment but who require further reconditioning under medical supervision prior to return to a duty status. It is organized into a headquarters element, a clinical service, and a reconditioning service.

291. HOSPITAL CENTERS

When practicable, it has been found desirable to group general hospitals into hospital centers of from two to five such hospitals. A hospital center is a medical command. Such a grouping facilitates both the specialized treatment and evacuation of casualties. The extent to which convalescent centers are to be included in hospital centers depends upon the decision of the communications

zone commander. The size of such centers will be limited primarily by considerations of available space.

292. HOLDING UNITS

There is a requirement for facilities for the care and treatment of casualties at each location where there is a major change in the mode of evacuation. At railheads casualties must be collected and held ready for the arrival of hospital trains which continue evacuation. To attempt to move the number of casualties required to fill a train at one time from scattered medical units to the entraining points requires an unnecessarily large number of ambulances, disrupts the normal operations of medical units, and frequently results in hardship for the patients while being held in ambulances awaiting the arrival of the hospital train. The same considerations hold for airheads and ports of embarkation and debarkation. At the rear termini of air, rail, and water evacuation, means are required for the reception and distribution of large numbers of patients to the appropriate hospital facilities. When the route of evacuation extends over long distances, it may be necessary to establish intermediate installations to provide rest for the patients while in transit. These installations are known as holding units and their primary function is to provide temporary shelter and emergency medical treatment to patients while they are awaiting transfer. Units utilized to perform such missions may be varied. The communications zone, as well as the field army, is provided with holding companies which establish holding installations to care for patients while awaiting evacuation. Within the communications zone various other types of units, such as field hospitals, station hospitals of various sizes, and even general hospitals may be utilized to establish and operate such installations. Thus, any medical service unit capable of performing holding missions can be utilized for this purpose as the need arises.

Section III. ESSENTIAL FACTORS INFLUENCING THE HOSPITALIZATION PROGRAM

293. GENERAL

There are certain considerations pertaining to hospitalization within the communications zone which apply more or less to all fixed hospitals of the communications zone. The extent to which these factors influence the operation of each type hospital will vary primarily according to its size and organization.

294. INITIATION AND DEVELOPMENT

It is manifest that the development of fixed hospitals in the communications zone must be initiated and completed without undue delay in order to provide the number of fixed beds by the time required. The proper development of a hospital plant for operation by the hospital unit is dependent upon engineer technical assistance, troops, and supplies. Therefore, timely planning and coordination with the corps of engineers is essential. Detailed plans and specifications of the various types of hospitals to be constructed in the theater must be included in this advanced planning. Engineer supplies must be made available at the time and place needed. Temporary improvisation in the communications zone such as is used in the field army area, while apparently offering a solution in a rapidly moving situation, merely delays the establishment of fixed hospitals, increases the movement and dispersion of patients, and locates hospitals so far to the rear that displacement is required with the advance. It is most important that the development of fixed hospital plants in the advance section of the communications zone be started without delay. Under conditions where a rapid advance of our troops can be anticipated, the development of fixed hospitals in the field army area should be considered. To utilize mobile hospital units in the advance zone of the communications zone in lieu of fixed hospitals and to initiate hospital construction only in the rear of the advance section serve to hamper, delay, and nullify the fixed hospitalization program of the theater.

295. PLANT

Obtaining the plant in which a hospital unit is to operate is one of the most difficult tasks facing the communications zone surgeon. Hospital plants large enough to accommodate the rated capacity of a hospital unit are most desirable. The next choice is to find and alter appropriately existing permanent construction large enough to accommodate the rated patient capacity of the unit. Hospitals may have to be established under tentage or in prefabricated or other types of buildings. Advanced planning must include requests for plant sites and such request must be made well in advance. Construction which has been occupied for other purposes is difficult to obtain for hospitalization. Therefore, it is necessary to earmark for hospital use plant sites while they are still in enemy territory, using for this purpose all available information from intelligence sources. Early reconnaissances must be made of all newly liberated territory by experts on hospitalization in order to determine those structures which are suitable

for conversion into hospitals. Hospital units greater than 1,000-bed capacity are most difficult to locate in suitable construction primarily because of their large size and the requirement for utilities. Irrespective of its rated capacity, fixed hospitals are not designed to operate except as an entity. Splitting of the unit and operation in more than one plant is not desirable.

296. UTILITIES AND FACILITIES

Since hospitalization and evacuation are so intimately related, hospitals must be located, insofar as practicable, with due regard to the requirements for operation of an efficient evacuation service. They must be served by roads, rail, and, if possible, by air. Suitable railway sidings must be provided near general hospitals if rail evacuation is to be utilized to maximum advantage. The availability of nearby landing fields for the use of aircraft engaged in evacuation is most desirable. In addition to satisfactory rail and air service, utilities such as light, heat, power, and sewerage are essential if the hospital is to function properly. The expansion of hospitals is dependent upon the availability of sufficient utilities.

297. TIME OF AVAILABILITY

The time necessary for the development of the hospital program depends upon plant availability and upon the availability of engineer technical assistance, labor, and supplies to develop the plant to a stage in which the hospital is able to function. The arrival of unit personnel and unit equipment and the provision of authorized transportation to the unit likewise have considerable bearing on their timely availability. Even under static conditions of peace in the continental United States, construction of hospitals is time-consuming. In time of war in an active theater of operations where greater tasks for engineer troops and supplies exist, it is even more difficult. The time lag existing between planned fixed beds and actual beds will vary according to the above availabilities. Experience has shown that, on the average, 90 days will elapse between the initiation of construction or modification and the availability of the plant for operation as a hospital.

298. LOCATION

General hospitals should be located as far forward as possible, with due regard to the tactical situation, in order to reduce evacuation requirements and to avoid the necessity of frequently "rolling up the lines of communication." However, hospitals should

not be located so well forward that enemy action will prejudice their full and continued operation. The effect of atomic warfare on centers of population may preclude the location of hospitals in centers of population and thereby will increase the requirements for hospital construction materials. Fixed hospitals must be located with due regard to the evacuation pattern both as to evacuation from the combat zone and evacuation within the communications zone.

299. EXPANSION

A minimum of 50 percent expansion equipment is provided in the theater for each fixed hospital. Plans should exist for the emergency expansion of every existing plant. Provision of a reserve in hospital beds is as essential as it is to provide a tactical or strategic reserve of combat troops. It is to be stressed, however, that, without augmentation of personnel, hospitals are capable of maintaining expansion beds in operation for short periods only.

300. DISPLACEMENT

Fixed hospitals of the communications zone are immobile and movement of them is inherently difficult. The loss of available bed potential and the time and effort required to effect their closure at one location and their reopening at another location make it inadvisable to displace them. In many cases it is completely impossible to move the plant and its equipment. As a result, hospital units are moved; plants are not moved unless shelter is provided which is capable of disassembly and reassembly.

301. STATION SERVICES

Unless Tables of Organization provide station services as an organic part of the hospital unit, trained signal, quartermaster, engineer, military police, finance, and postal detachments must be made available to meet these needs. Laundry service provided by the Quartermaster Corps for all hospitals is particularly essential.

302. PROPERTY EXCHANGE

Provision must be made for additional supplies to all hospitals in order to facilitate property exchange so that mass evacuation can function smoothly and without unnecessary delay.

Section IV. FIXED BED REQUIREMENTS

303. GENERAL

Fixed hospital bed requirements are computed in terms of the normal patient capacities of fixed hospitals. In common practice the total number of fixed beds required in a theater of operations is stated as a percentage of the troop strength. For planning and calculation of such requirements, see chapter 17.

a. General and Station Hospitals. General and station hospitals are fixed hospitals and their beds are charged to the theater accordingly.

b. Field Hospitals. Field hospitals are charged to the theater as fixed beds only when so recommended by the theater or theater Army commander. Field hospitals are capable of versatile employment and, unless they function in all respects as fixed hospitals, it is undesirable that they should be classed as such.

c. Convalescent Centers. Although convalescent centers are classed as fixed installations, such units are not charged to the theater as fixed beds. The reasons for this are obvious. These units are adjuncts to fixed hospitals, and are not capable of providing definitive treatment comparable in any degree to that of station or general hospitals.

d. Combat Zone Hospitals. Evacuation hospitals, mobile army surgical hospitals, and convalescent centers of the combat zone are not charged as fixed beds. Circumstances under which such units are employed in the communications zone in lieu of fixed hospitals are unusual and resorted to only as a temporary expedient.

304. REFERENCES

For further information regarding hospitalization see TM 8–262, FM 101–10, and FM 100–10.

CHAPTER 17

MEDICAL PLANNING

Section I. GENERAL

305. GENERAL

Basic planning of the medical service of the communications zone normally involves three major considerations: first, plans pertaining exclusively to the medical service; second, plans requiring coordination with other services and agencies of the Army; and, third, plans involving joint action with the Navy and the Air Force. A fourth consideration is involved in combined operations with other Allied Powers. The medical service must operate as a part of the joint service team in order to accomplish its primary mission. Since the Army as a whole depends upon the medical service for those functions that it is qualified and required to perform, the medical service must depend upon other special and basic branches for those services and supplies provided by them. Plans prepared by the medical service or any command thereof and which depend upon the joint action of the Army, Navy, or Air Force for their implementation must be based on policies and directives of the theater or joint commander concerned and have been published throughout appropriate command channels in a timely manner. The effectiveness of short-range or current medical plans and their timely implementation is measured by their integration with long-range plans which have been approved by the commanders concerned.

Section II. EVACUATION PLANNING

306. EVACUATION POLICIES

a. The theater evacuation policy is a command decision made by the Department of the Army upon the recommendation of the theater commander. This policy specifies which patients shall be evacuated to the zone of the interior by designating a maximum number of days of allowable hospitalization within the theater. Patients who, in the opinion of responsible medical officers, cannot be returned to a duty status within this prescribed period must be returned to the zone of the interior by the first available and suitable transportation, provided such travel will not aggravate their

disabilities. The shorter the evacuation policy, the fewer number of fixed beds will be required for hospitalization within the theater.

b. The evacuation policy commences with the date of admission to the first hospital at any level of medical service to which the patient is admitted and will include all time required for medical rehabilitation and convalescence as well as active medical care. The periods which may be considered as applicable are 30 days, 60 days, 90 days, 120 days, or 180 days. A minimum of 120 days is regarded as desirable in order to minimize the loss of trained men to the theater. The maximum is considered 180 days, since any periods in excess of this will require the construction of extensive hospital facilities in the theater by the requirement for greater numbers of available fixed beds. Limited type operations, such as occur in landings on hostile shores, would necessitate evacuation policies of shorter periods, since the beds are not available until suitable construction has been completed.

307. INTRATHEATER EVACUATION POLICIES

a. The intratheater evacuation policies are the means of control whereby short-term patients are evacuated no farther to the rear than is necessary in order to avoid unnecessary loss of combat personnel and to provide more adequate treatment for selected patients. These policies in no way affect the theater evacuation policy, that is, the total fixed bed requirements for the theater. Evacuation policies within a theater are normally established for certain areas, certain types of medical installations, and certain classes of patients, specifying which patients shall be evacuated to the next higher level of medical care. For example, a 30-day evacuation policy may be established for station hospitals. Thus, all casualties admitted to station hospitals whose recovery is likely to require more than 30 days are evacuated to general hospitals.

b. Certain flexible evacuation policies, useful as guides but varying with casualty rates and available beds, may be established for the combat zone. Similarly, evacuation policies for dispensaries may be established. In addition, in airborne operations evacuation policies may be established for evacuation from independent airheads. All intratheater evacuation policies affecting combat zone operations are extremely variable depending on the tactical situation. It is mandatory that combat zone installations maintain their mobility and, paradoxically, at the same time retain all casualties which can be rehabilitated for future service.

Section III. HOSPITALIZATION PLANNING

308. GENERAL

In hospitalization planning there are certain basic factors involved which are necessary to establish the hospitalization requirements for a theater of operations. To compute bed requirements for any specific operation, it is necessary to establish first an evacuation policy, daily admission rate to hospitals, troop strength of the theater, accumulation factor, the dispersion factor, and any additional requirements not reflected in troop strength. The evacuation policy has been discussed in the previous section, whereas the other pertinent factors will be discussed in subsequent paragraphs.

309. DAILY ADMISSION RATES

The frequency of a given type of casualty is normally expressed in terms of the number of such casualties that occur in a definite number of troops within a given period of time. As a practical consideration, only those casualties which require hospitalization and those which are excused from the performance of military duty for 24 hours or longer need be considered. The number of casualties of a certain type admitted daily per each 1,000 of troop strength is known as the daily admission rate. For purposes of statistical reporting, casualties are further classified as nonbattle casualties and battle casualties. Nonbattle casualties include those caused by disease and nonbattle injuries. Battle casualties include combat wounded, gassed, missing, and killed in action. In estimating projected admission rates, certain important factors must be considered, such as climatic conditions, disease prevalence, terrain, status of training of troops, enemy capabilities, and the use of new and improved weapons by the enemy. Admission rates are normally based on statistics accumulated over a period of time. For listing of these rates under various circumstances, see FM 101–10.

310. ACCUMULATION FACTOR

Under a given evacuation policy, patients will accumulate in hospitals at a certain determinable rate depending upon the admission rate, the type of disability, and the average period of hospitalization. Based upon experience in both World Wars, these accumulation rates have been assembled into tables called accumulation tables. The accumulation factors given in such tables are based upon a daily admission rate of one per 1000 troop strength and upon a specified evacuation policy. (See FM 101–10.)

311. DISPERSION FACTOR

a. It is never possible to use all the available beds of any fixed hospital. This will necessarily require the application of a dispersion factor. Under normal conditions, a 20 percent dispersion factor is generally found to be adequate. This factor is required mainly because of the necessity to utilize separate wards for patients of different sexes, for cases of contagious disease, and for cases requiring different types of treatment. This practice requires the provision of a safety margin in each ward, since the proportions of patients of the various classes will vary. To all intents and purposes a hospital is operating at full capacity when it has reached 80 percent of its rated capacity. In addition, the daily admission rates and the rates at which patients can be disposed of are not constant. Both vary from day to day and must be considered in allowing for an extra margin of available beds.

b. Other factors affecting available bed capacities within the theater are as follows:

(1) At any given time a certain proportion of the authorized beds per theater may be packed for shipment within the theater. The greater the mobility of the troops, the greater becomes the necessity for displacement of operating hospitals and the greater the allowance required for dispersion.

(2) In an active theater where the location of troop units and concentrations are inconstant, it is necessary to furnish hospital units even though such hospital facilities will not likely be fully utilized. The greater the dispersion of troops, the greater the dispersion factor.

(3) It is often necessary to establish operating hospitals to provide for troop concentrations in static phases or in the preliminary phase of active operations. Such hospitals may be poorly located with respect to an effective evacuation pattern after operations have begun. An inefficient evacuation pattern increases the dispersion factor.

(4) Because of the necessity for mass evacuation of casualties and the means of transportation used, small numbers of casualties cannot ordinarily be evacuated to any given hospital. Thus, a hospital with only 200 beds available for occupancy cannot receive a trainload of patients (approximately 300 patients).

(5) Any fixed hospital delayed by any cause from being placed in operation promptly after its arrival in the the-

ater increases the dispersion factor. Tactical operations, however, may require that such units be held in reserve ready for movement.

312. ADDITIONAL FIXED BED REQUIREMENTS

In addition to the number of fixed beds which are calculated on the basis of the troop strength in the theater, there must be added an allowance, when appropriate, for care of Navy personnel, Air Force personnel, merchant seamen, civilian employees, liberated and enemy prisoners of war, liberated United States and Allied nationals, and labor battalions of native personnel recruited in the theater and for which the Army is committed to provide medical attention and hospitalization. It is manifest that certain of these categories, i.e., liberated Allied nationals and liberated and enemy prisoners of war, may not be evacuated to their native countries and may continue to occupy hospital beds for an indeterminable period.

313. ORGANIZATION AND EQUIPMENT REQUIREMENT PLANNING

a. It is not desirable under all circumstances and under all conditions to regard each single general and station hospital as a completely rigid organization. In order to utilize professional personnel of fixed hospitals to their maximum, and at the same time to provide the maximum in professional service, it is often desirable to obtain a reasonable degree of flexibility by authorizing departure from the established tables of organization and equipment of such units. However, neither the total number of personnel grades and military occupational specialties nor the provision of authorized equipment of such units on the troop basis are to be exceeded without approval of higher authority. Modifications, however, do not affect the troop basis. The departure from established tables of organization and equipment is a temporary expedient and is limited to the period of time and to the extent necessary to conform to the over-all as well as the local requirements for fixed hospitalization in the communications zone. The effect of such a system is to reinforce certain units at the expense of other units for the purpose of making the most effective use of especially qualified personnel and plant facilities, and to provide for measures which enhance the specified treatment of certain categories of patients. Such modifications are particularly desirable in hospital centers in which certain of the hospitals may be largely restricted to specific categories of medical, surgical, and neuropsychiatric patients. However, such modifications should not be limited to hospital centers but instituted wherever it is to the advantage of

the medical service in the more efficient fulfillment of its mission. The necessity for such modifications is determined by the communications zone surgeon and initiated by him with the approval of the communications zone commander.

b. A fundamental requirement for the medical service to properly perform its mission is the provision of sufficient bulk authorization personnel and sufficient medical units of the proper types. These units, organized and equipped under Tables of Organization and Equipment, may be classified into those necessary for command, hospitalization, evacuation, preventive medicine, supply and maintenance, dental, veterinary, and miscellaneous. The net effect of underestimating medical troop requirements is to place the medical care of sick and wounded casualties in jeopardy. Once established, the troop basis cannot be altered except for changes which do not affect the over-all troop strength and major equipment. This results from personnel limitations and from the necessity for organizing and training medical units in the zone of the interior many months before they are shipped overseas, and for providing the equipment required for such units in overseas depots in sufficient time. In formulating the medical troop basis for the communications zone, the troop strength of the entire theater must be considered. Normally this will include the troop strength of the communications zone, the combat strength of the combat zone, and theater Army replacement command troops. In addition, should the communications zone be made responsible for fixed hospitalization for Air Force and Navy personnel, the strength of these forces must be considered. A general guide for the allocation of certain medical units to the communications zone is contained in table II. This guide is based upon a type communications zone for the support of one field army. It is pointed out that the units listed are exclusive of, and in addition to, those medical units assigned or allocated to the field army.

Section IV. COORDINATION IN PLANNING

314. GENERAL

All the planning of Army Medical Service activities and operations requires early coordination with all those agencies of the Army and/or other forces involved. Such coordination not only insures that those agencies concerned are cognizant of medical plans, but permits the reaching of agreements between those agencies, thereby assuring the execution of final plans at the proper time and in the proper manner.

Table II. Medical Troop List for Communications Zone in Support of One Field Army.

Type Unit	*Total Units*
COMMAND ELEMENTS	
Headquarters and headquarters detachment medical group	1
Headquarters and headquarters detachment medical battalion	2
Hospital center	2
Headquarters detachments	(See *note a.*)
EVACUATION ELEMENTS	
Medical ambulance company motor, separate	8
Medical collecting company separate	3
Hospital train	12
HOSPITALIZATION	
General hospital / Station hospital — 80% of fixed bed requirement	(See *note b.*)
Field hospital	4
Holding company	3
Convalescent center	(See *note c.*)
PREVENTIVE MEDICINE	
Preventive medicine company	1
Preventive medicine, survey, and control detachments	(See *note a.*)
Medical general laboratory	1
Medical illustration detachment	(See *note a.*)
SUPPLY AND MAINTENANCE	
Medical depot, communications zone	1
Supply detachment	(See *note a.*)
Optical repair detachments	(See *note a.*)
Maintenance detachments	(See *note a.*)
MISCELLANEOUS	
Dispensaries	(See *note a.*)
Medical detachment	(See *note a.*)
Blood bank detachment (bleeding and laboratory)	(See *note a.*)
Professional services detachments	(See *notes a* and *d.*)
Food service detachments	(See *note a.*)
Automotive maintenance detachments	(See *note a.*)
Veterinary detachments (food inspection and animal)	(See *note a.*)

Note a. Cellular elements of T/O&E 8-500. Allocated on requirements as determined by communications zone commander.

Note b. Fixed hospital beds allocated on the basis of total troop strength of the theater, evacuation policy, admission rates, dispersion, and accumulation factors.

Note c. Allocated on the basis of the number of fixed beds in the theater.

Note d. Includes surgical, medical, psychiatric, dental, and other professional detachments.

315. COORDINATION WITH STAFF AGENCIES

All general staff agencies will be vitally concerned in the plans for medical service. It is especially important that early coordination be instituted and maintained with the following technical services.

a. The engineer service for technical assistance, engineer labor, and engineer supplies for construction of hospitals.

b. Transportation service for surface transportation for casualties and shipments of medical supplies.

c. Signal service for signal communications necessary in the control of evacuation and other operative procedures.

d. Quartermaster service for quartermaster supplies, clothing, rations, and laundry service.

e. Ordnance service for ordnance supplies and vehicles for medical units.

f. Other special and basic branches which furnish necessary technical and administrative detachments for medical units.

316. COORDINATION WITH NAVY AND AIR FORCE

The extent of the joint use of fixed hospitalization and joint participation in evacuation is determined by the theater commander, necessitating the coordination of essential details regarding evacuation by air with the Air Force and evacuation by sea with the Navy. Information regarding the location of airfields in relation to hospitals which have been or are to be established and the location of ports from which and to which casualties will be evacuated by sea will materially affect plans for the development of fixed hospitals and evacuation within the theater and to the zone of the interior. Early determination of the extent to which the Navy and the Air Force are to provide air and water means for evacuation is of the utmost importance.

317. REFERENCES

For further information regarding medical planning see FM 8–55, FM 101–10, and FM 100–10.

CHAPTER 18

MEDICAL SUPPLY

318. GENERAL

a. The theater Army commander is responsible for the development of supply systems which will insure adequate provision of supplies for theater Army forces and, when applicable, for Navy, Air Force, and civil affairs or military government activities. The extent to which supply functions are decentralized to the communications zone commander is determined by the theater Army commander. (See chapter 2.) Depending on theater organization, the geographical features in the theater, and the nature of contemplated military operations, delegation of functions will be altered in order to meet the need for flexibility. It is normal for the communications zone commander to handle the routine details of theater Army administrative support directly with the designated zone of the interior agencies.

b. The development of a medical depot supply system depends on conditions existing in the particular theater; for example, the system developed on a large land mass will differ from that required in ocean areas where islands and island groups are separated by great distances. The availability of shipping and the adequacy of harbor discharge facilities are other factors which influence the storage and distribution of supplies to the theater and to using agencies and materially affect the development of a depot system. In any case, the surgeon of the communications zone closely supervises all matters pertaining to stock control and the operation of the medical depot system within the policies established in the theater.

319. RESPONSIBILITIES OF THE COMMUNICATIONS ZONE SURGEON

The general responsibilities of the communications zone surgeon and the supply division of his office are as stated in chapter 1, part three. He is further responsible for coordinating and integrating medical supply planning with all other planning of his service. He is likewise responsible for coordinating his supply plans with other interested services. Knowledge of the over-all theater troop basis and of long- and short-range operational plans are essential to the formulation of a proper supply plan.

320. COMPUTATION OF REQUIREMENTS

Theaters are authorized certain supply levels which represent the amount of supplies necessary for a specified number of days for a given theater troop strength. The supply level is maintained by periodic requisitions, taking into consideration the established theater level of supply, the theater stock position, special projects or authorizations, the time factor in obtaining supplies, and available experience as to expected rates of use. Requisitions are prepared and submitted to the zone of the interior in accordance with requisitioning schedules established within the theater and with due regard to tonnage allocations, shipping priorities, and the projected build-up of troops in the theater.

321. ESTABLISHMENT OF SHIPPING PRIORITIES

Shipping to the theater may be controlled by the theater commander, theater Army commander, or communications zone commander, depending on the organization of the theater and the delegated responsibilities. Supply services submit requisitions to the designated command headquarters, which in turn establishes a theater priority of shipment and forwards the requisition, with the priority assigned, to the appropriate zone of the interior agency.

322. ESTABLISHMENT OF THE DEPOT SYSTEM

a. The determination of the number, type, location, and mission of medical depots to be established is a responsibility of the communications zone surgeon and is dependent generally upon the number of troops to be served, their locations, and the availability and accessibility of means for the storage and distribution of supplies by rail, water, highway, and air.

b. Medical depots, or medical branches of general depots, are usually designated in accordance with the mission they perform, namely—distribution, key, and reserve.

(1) A distribution depot is established for the supply of troops in a given area in accordance with communications zone plans.

(2) A key depot is established for the purpose of centrally storing selected critical items for more effective distribution, such as x-ray equipment, teeth, and items procured in the theater.

(3) A reserve depot is used to store special items in bulk as well as general supplies in excess of current needs.

c. Medical depots in the communications zone are operated by table of organization units augmented, whenever possible, by local labor and by prisoner of war labor.

323. LOCAL PURCHASES OF MEDICAL SUPPLIES AND EQUIPMENT

Local purchase of medical supplies in the theater of operations is desirable, wherever practicable, in order to save time and shipping space. However, any plan for local purchase must be carefully considered from the following standpoints:

a. The acceptability of foreign produced matériel in lieu of that produced in the United States.

b. The effect on medical proficiency standards resulting from the use of equipment which requires special training to operate.

c. Difficulties in the procurement of spare parts and replacement items.

d. Difficulties in transfer of equipment when it becomes necessary to displace hospitals.

e. Problems of operating a medical supply system involving a large number of foreign produced nonstandard items.

f. The possible effect of disrupting existing controls on civilian economy.

g. The time necessary for the production and delivery of foreign produced equipment to our forces.

324. DISPERSION OF HOSPITAL UNIT EQUIPMENT

The practice of split-loading of Medical Service hospital unit equipment (unit assemblies) at zone of the interior ports creates serious complications in its receipt in a theater. Unit assemblies must be complete in order to be functional. This requires that hospital unit assemblies constructed in the zone of the interior for shipment to the theater *must* be loaded as a unit and discharged functionally complete at one port in a theater. Further, certain items such as narcotics, liquor, gold, and fragile equipment require special handling and must be protected while in port custody and en route. It is essential that organizational supplies and equipment received at ports and depots in the theater be checked against ship manifests and other shipping documents and the shortages noted. In the event that shortages in supplies and equipment are noted upon receipt of organizational equipment, the report of such shortage will be made immediately to the surgeon of the communications zone. When organizational equipment marked for units is received by depots in the theater, it is segregated and retained intact pending issue to the unit. Shortages in organizational equipment for units are normally made up by the depot from available stock and immediate action taken to replace such shortages.

325. DISTRIBUTION OF SUPPLIES AND EQUIPMENT

Distribution is based on the need for supplies in certain depots as reflected in the stock status reports of these installations. The distribution of supplies and equipment to the various medical depots and medical sections of general depots is controlled by the communications zone surgeon. It is necessary that one central agency be advised of the over-all status of theater medical supplies in order to balance stocks in the various depots.

326. STOCK CONTROL

A stock control system is established to maintain adequate stocks of supplies and equipment in the various supply installations. The procedure is based on a regular accounting of receipts, stocks, and issues of supplies and equipment, together with a projection of future requirements. Depots submit, at designated intervals, reports which reflect their stock position. These reports are consolidated to give to the communications zone surgeon the over-all stock picture. Based on the reports, interdepot transfers are directed by the surgeon and periodic requisitions are submitted through established theater channels to the zone of the interior to maintain theater supply levels.

327. ISSUE OF SUPPLIES AND EQUIPMENT

Medical installations and units submit periodic requisitions directly to their designated depots in accordance with established schedules for issue within authorized allowances. Requisitions for controlled items (items designated as requiring approval of the communications zone surgeon prior to issue) and for items in excess of authorized allowances are submitted to the communications zone surgeon for approval. Shortages on requisitions are reported daily by the depot to the surgeon, who takes appropriate action to correct the deficiencies.

328. TRANSPORTATION OF SUPPLIES AND EQUIPMENT

The transportation available for the movement of supplies and equipment in a theater of operations is always limited. This results in the establishment of tonnage allocations and priorities for its use. Plans are based on developing the most effective use of available motor, rail, water, and air transport. Air or some other means of rapid transport must always be used when transporting deteriorating items such as whole blood and vaccines. Arrangements must be made for the transportation of exchange items such as litters, blankets, and the like. Timing of shipping is essential,

since units must have in their possession the required supplies and equipment prior to supporting combat operations. Hospital trains provide a rapid and efficient method of transporting certain types of medical supplies and equipment from medical depots to forward areas. Freight cars may be attached to hospital trains for this purpose. Marking of freight cars so used with the Geneva Cross is a matter for determination by the theater commander.

329. SECIAL OPERATIONAL PROJECTS

In order to carry out a specific combat mission, it is frequently necessary to issue to units supplies and equipment in excess of the usual requirements. Such issues, unless foreseen and provided for, may serve to use up theater stocks and must therefore be reflected in theater replenishment requisitions.

330. COORDINATION WITH OTHER SPECIAL AND BASIC BRANCHES

Much of the equipment and supplies used by medical service units is procured, stored, and issued by other special or basic branches. In order that needed supplies may be available when required, all current or projected needs must be coordinated with the special or basic branches concerned. Continuing contact with all special or basic branches must be developed early in supply planning in order that needs for, and demands to be placed on, the medical service may be properly coordinated by all concerned.

331. PROPERTY EXCHANGE

In the process of casualty evacuation, litters, blankets, pillows, splints, and like items of supply must accompany casualties. In order that these items may not be drained from the units through which casualties pass, an exchange system must be established. Wherever practicable, in the case of hospital trains and hospitals, a direct exchange, item for item, is accomplished. In the event a direct item-for-item exchange is not practicable, trains, planes, or ships, on going forward, must carry replacement exchange items. Quantities of items to be authorized, in addition to normal supplies, for hospitals and other medical installations involved in property exchange are determined by the communications zone commander. In anticipation of combat operations, stocks of exchange items should be considered in all supply planning. Provision for laundering or cleaning of certain exchange items must be planned in advance.

332. REFRIGERATION

Arrangements are made in advance to provide adequate refrigeration for such items as whole blood and vaccines. Personnel must be provided for the procurement, processing, storing, and distribution of whole blood to the combat elements. Mobile refrigerating units must be available in connection with the storage and distribution of whole blood. Hospital ships and trains require adequate refrigeration space for perishable items.

333. LOCAL AND PRISONER OF WAR LABOR

a. Local Labor. This source of labor should be exploited to the utmost. Language difficulties and the adaptability of the individuals available will largely determine how they will be used. Security and the probability of sabotage and large scale pilferage must always be considered, and the progressive screening of individuals employed must be effected.

b. Prisoners of War. This source of labor has been of great value in past operations, and the tasks performed have been as varied as the skills of the individuals. Equipment maintenance and repair functions may be carried on by skilled prisoners when adequately supervised. Since guards must be provided for prisoner of war labor, it is most economical to work prisoners in large groups. Security and the probability of sabotage and pilferage must always be considered in the employment of prisoners of war.

334. SUPPLIES FOR LOCAL CIVILIANS, DISPLACED PERSONS, REFUGEES, AND PRISONERS OF WAR

The Army is responsible for providing medical care or assistance for these categories of persons. In the computation of the supplies and equipment required for them, full use should be made of all available intelligence data relating to the incidence of disease and the numbers of such persons for whom medical care must be provided. It is possible that the number of prisoners of war, for example, will be such as to require the establishment and equipment of special hospitals for that purpose.

335. CAPTURED SUPPLIES AND EQUIPMENT

Medical supplies and equipment captured from the enemy are utilized by combat units or turned over to designated communications zone depots or dumps. This material is segregated and that of value is picked up in theater stock. Captured medical supplies of no value to the military forces will be disposed of in accordance with theater policies. Captured supplies and equipment are of particular value in the treatment of prisoners of war, since captured medical personnel are familiar with such equipment. Such

a practice tends to conserve the medical equipment and supplies provided for our own troops. It is essential that adequate samples of all captured medical items be preserved and turned over to intelligence agencies for inspection and testing. In the event that large amounts of enemy medical supplies and equipment are captured, it is frequently expeditious to concentrate this material in one or more medical depots or dumps where it may be classified and issued.

336. RECORD FORMS

Provision must be made for an adequate supply of record forms pertaining to the medical service. Timely arrangements must be made with the service charged with the supply of such forms if they are to be on hand when needed. Reproduction facilities and paper stock for this purpose must be available to the medical service at all times in case local reproduction of the forms becomes necessary.

337. EQUIPPING OF HOSPITAL TRAINS

Although organizational equipment is ordinarily provided for hospital trains, the situation may call for the improvisation of such trains from available rolling stock. Items of equipment required for the medical care, messing, and comfort of casualties on improvised hospital trains are obtained from available stocks. Points of resupply for hospital trains are established at terminals of hospital trains and at points en route on long journeys.

338. EXPANSION MEDICAL UNITS

This must be taken into consideration in initial planning in order that the required supplies and equipment will be available when needed. In such planning, supplies and equipment furnished by other special or basic branches and required by medical installations must be considered and timely requisition placed on those branches. As noted in the chapter on hospitalization, expansion equipment should be provided for every fixed hospital in the theater to the extent of fifty percent of its rated capacity.

339. EQUIPMENT RESERVE

In theaters of operation, equipment is always subject to damage by enemy action or capture. In order that equipment so lost can be expeditiously replaced, an accessible reserve must always be maintained. This reserve may be in the form of individual items of depot stocks, or in reserve assemblies of organizational equipment. A combination of both is preferable.

340. DISPERSION AND PROTECTION OF EQUIPMENT AND SUPPLIES

In order to reduce damage to supplies and equipment by enemy action, it is advisable, so far as is consistent with requirements, to disperse stocks in various medical depots.

341. SPECIAL SUPPLIES

Special drugs, vaccines, and other supplies may be required, depending upon disease prevalence in the area in which operations are being conducted. The requirements for such items must be anticipated in sufficient time to have the supplies available when required.

342. INSPECTION OF ORGANIZATIONAL EQUIPMENT BY UNITS

Where unit assemblies, such as general or station hospitals, are to be stored in depots prior to shipment to operating sites, it is highly desirable that personnel from the units which will eventually utilize the assemblies inspect them for completeness and markings. This procedure will insure that an assembly is complete prior to shipment. When shipment of the assembly is made to the site of operation, it is most desirable that personnel from the unit accompany it to insure its completeness at destination and to prevent splitting of the shipments in loading or during transit.

343. MEDICINAL GASES

Since a large amount of medicinal gases, such as oxygen, is required by medical installations in a theater of operations, it is essential that arrangements be made for the refilling of cylinders without the necessity of returning them to the zone of interior. If oxygen cylinders are obtained in foreign countries, sufficient adapters must be procured to permit use of the cylinders with United States Army equipment.

344. FIELD ARMY TONNAGE ALLOCATIONS

In operations in which more than one field army is engaged, available transportation is allocated between each of the armies. This allocation is made in terms of tons of supplies that can be transported from the communications zone depots or dumps to Army railheads or depots. Commanders of field armies in turn make tonnage allocations to the various branches under their control.

345. REFERENCES

For further information regarding medical supply, see FM 100–10, FM 101–10, and the Armed Services Catalog of Medical Matériel.

PART FOUR

VETERINARY, NEUROPSYCHIATRIC, AND DENTAL SERVICE

CHAPTER 19

VETERINARY SERVICE

Section I. GENERAL

346. SCOPE

Matters pertaining specifically to the veterinary service are discussed in this chapter, including general characteristics of theater veterinary service; veterinary service in the combat zone; and veterinary service in the communications zone.

347. PRINCIPLES

The principles affecting the conduct and operation of the veterinary service are, to a large extent, fixed and not subject to change. These principles serve as a basis for developing policies to meet the demands of a particular situation. Theaters vary widely in situations and problems; consequently, policies which are applicable to one may not be applied to another, although the same principles will apply equally to both. Therefore, in order to develop and establish logical and effective policies and procedures, those individuals who are responsible for planning and supervising veterinary activities in a theater of operations must be thoroughly familiar with the principles that govern this service.

Section II. CHARACTERISTICS OF THEATER VETERINARY SERVICE

348. GENERAL MISSION

The general mission of the theater veterinary service is the conservation of military animals, and of mobilized manpower insofar as the latter is influenced by the condition and quality of food products of animal origin.

349. GENERAL RESPONSIBILITIES

The general responsibilities of the veterinary service are:

a. To protect the health of troops by insuring that food products of animal origin which are procured in the theater of operations are from sanitary sources and that these products are otherwise safe and suitable for human consumption.

b. The protection of the economic interests of the government by determining that food products of animal origin procured in a theater of operations for troops comply with contractual requirements in regard to type, class, grade, packaging, and delivery; and after procurement, by determining that these products are handled in a manner which will minimize losses through spoilage or deterioration.

c. As may be directed by higher authority, to inspect for condition all foods of animal origin shipped into a theater of operations, at time of transshipment, during storage, and at time of issue, for the purpose of detecting deterioration and to insure the issue of products which are sound.

d. As may be directed by higher authority, to inspect for sanitary condition, quality, and packaging, foods of nonanimal origin procured in a theater of operations and to continue surveillance of this class of foods, irrespective of source, until time of issue.

e. The initiation and application of measures to insure the health and physical efficiency of military animals.

f. The evacuation, care, and treatment of sick and injured military animals.

g. The submission of information and practicable recommendations to proper authority concerning all matters within the scope of the veterinary service.

h. The direction and supervision of civilian veterinary medical activities in occupied territories.

i. The preparation, transmission, and preservation of veterinary records and reports relating to military animals and food products.

350. VETERINARY RESPONSIBILITY OF COMMANDERS

a. The commander of a theater, or a subordinate command, is responsible for the veterinary service within his command. The responsibility for developing and administering this service, however, is normally delegated through the staff surgeon to the staff veterinarian.

b. Qualified veterinary officers are selected and assigned to the office of the theater, field army, communications zone, and other

command surgeons as technical and administrative advisors in directing the veterinary service. In addition, they exercise operational control of those veterinary units not assigned or attached to a subordinate command.

351. THEATER VETERINARIAN

The theater veterinarian, an assistant to the theater surgeon in a staff capacity, supervises the operation and administration of the veterinary service in a theater of operations. He has a dual function in that, regarding matters pertaining to animal service, he deals directly with other staff sections of the command, whereas, in that phase of the veterinary service concerned with food examination and the transmissibility of disease of humans he reports to, or through, the theater surgeon on all matters having a bearing on the health of the command.

a. Professional responsibilities to the theater commander include the care and treatment of all animal casualties; maintenance of technical supervisior over veterinary animal service units and personnel within the command; establishment of suitable measures for the prevention and control of animal diseases and injury; and the provision of evacuation and hospitalization for animals.

b. Administrative responsibilities to the theater commander may include the procurement of animal transport within the theater; operational control of veterinary units not concerned in medical service functions, and not assigned or attached to subordinate command; matters dealing with animal management such as forage inspection, stabling, housing, etc.; and the submission of such reports as may be required.

c. Professional responsibilities pertaining to the theater surgeon would include formulation of plans for the sanitation and handling of food products from the time of receipt in the theater to issue to troops; inspections and recommendations with regard to the safety and operation of theater food industries such as dairies, abattoirs, canneries, etc.; inspections and recommendations with regard to the adequacy of food storage facilities in order to minimize losses resulting from improper handling and/or storage; formulation and execution of plans for the prevention and control of animal diseases in occupied areas which might become a health menace to troops, to civilian populations, or to military and civilian animals; and inspections and recommendations in connection with possible sabotage of food supplies.

d. Administrative responsibilities pertaining to the theater surgeon include recommendations for the requisition, assignment,

promotion, and estimate of future requirements for veterinary personnel and units; the training of veterinary personnel; preparation and submission of such information on veterinary matters pertaining to the medical service as should properly be embodied in theater orders and directives; and keeping the surgeon informed as to the status of veterinary supplies and equipment.

352. OFFICE OF THE THEATER VETERINARIAN

As a staff officer of the surgeon, the veterinarian maintains his office as a section of the theater surgeon's office. This office is organized by the theater veterinarian as the needs of the service may dictate and may be composed of those assistants and subsections as deemed necessary for the proper fulfillment of the mission.

353. RELATIONSHIPS WITH OTHER STAFF SECTIONS

Close cooperation and coordination of the veterinarian with certain other staff sections concerned in the operations of the veterinary service are necessary for the proper functioning of the service.

a. With the quartermaster the veterinarian must deal in the veterinary functions of inspection of food products of animal origin for fitness for human consumption; in the determination that such food as may be procured in the theater complies with contractural agreements as to type, class, grade, and packaging; in the determination that animals procured in the theater meet the necessary standards of health and efficiency for military animals; in the inspection of food storage facilities so as to determine their adequacy to minimize losses through spoilage and deterioration; in the inspection of animal stabling and housing for the determination of its adequacy; and in the inspection of animal forage to determine that it complies with the purchase instrument, and that it is suitable for animal consumption.

b. With the transportation officer the veterinarian deals in the transportation of food products and dock storage to preclude spoilage or deterioration in transit; and in the veterinary supervision of transportation of animals.

c. With the engineer the veterinarian confers and advises relative to sanitary standards and other features in the construction of abattoirs, cold storage plants, milk plants, and other facilities incident to food storage as well as facilities for animals.

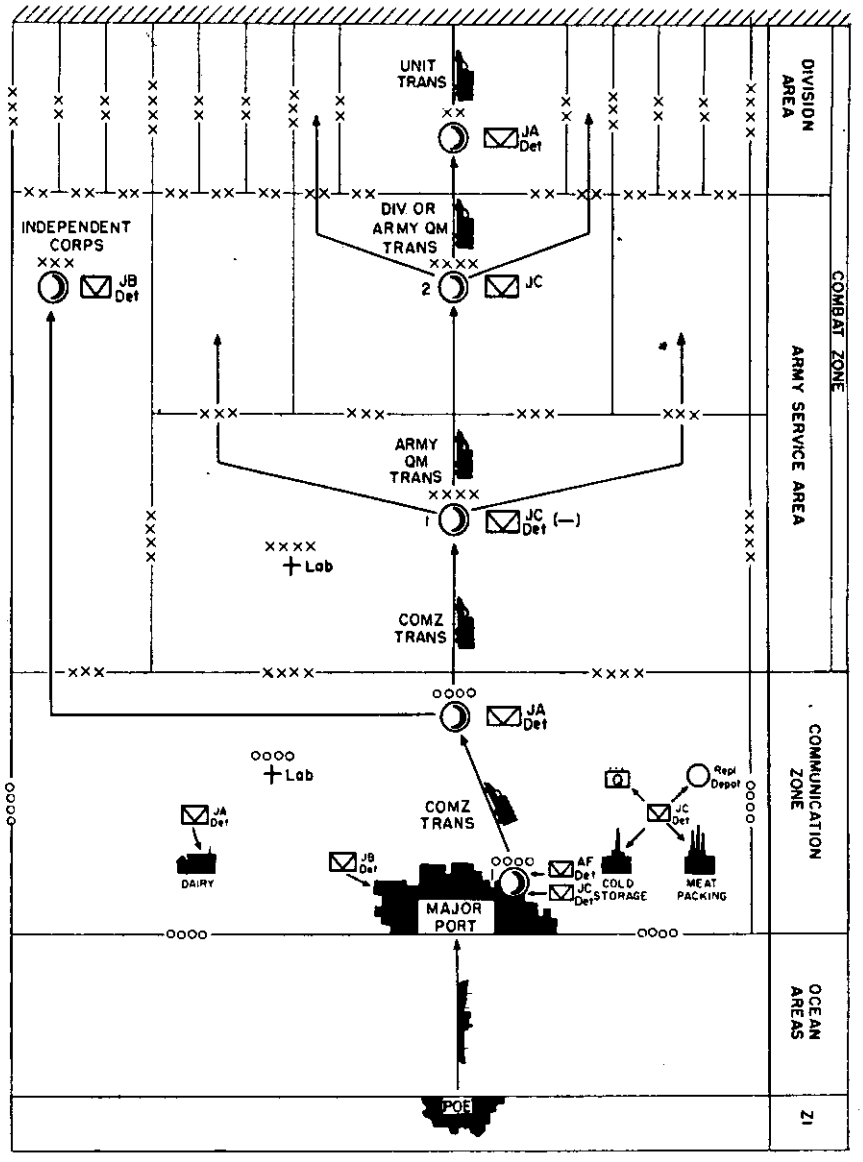


Figure 13. Veterinary food inspection service in theater of operations.

Section III. THEATER FOOD INSPECTION SERVICE

354. GENERAL

Veterinary food inspection as required by regulations includes meat, meat food, dairy, poultry, and marine products. However, experience in World Wars I and II demonstrated that in a theater

of operations the inspection of food of nonanimal origin intended for human consumption was economically and best accomplished by delegating this responsibility to the Veterinary Corps. Standing operating procedures in most theaters required veterinary certification of deteriorated food prior to disposition by quartermaster, post exchange, or other agencies.

a. Theater food inspection laboratory facilities are provided by the medical general laboratory T/O&E 8–650.

b. The actual performance of theater food inspection functions may be accomplished by either veterinary food inspection detachments or by veterinary personnel attached or organic to Tables of Organization and Equipment units. Veterinary food inspection activities will vary in accordance with the existing situation. A schematic diagram of a veterinary food inspection service in the theater of operations is shown in figure 13. Some of the factors which determine the kind and class of veterinary food inspection required are:

(1) Whether the food supply is obtained from the zone of the interior in whole or in part, or procured from local sources in the theater. In the latter instance complete ante-mortem and post-mortem examination may be necessary.

(2) Whether the food storage areas are concentrated in a limited area or separated by great distances.

(3) Whether the food storage locations are near the point of consumption by troops or at considerable distances from point of consumption.

(4) Whether favorable or unfavorable conditions for storage of food exist.

(5) The type of storage and refrigeration available, that is, permanent or temporary.

c. Requirements for veterinary food inspection personnel exist in all installations of the theater involved in the handling of the military food supply. The assignment of personnel to these installations remains flexible since the workload varies widely over short periods, and inspection personnel may be easily relocated in accordance with work requirements.

355. FIELD ARMY FOOD INSPECTION

Due to the storage problems concerned in the supply of troops with subsistence, those products which are subject to rapid spoilage or deterioration are normally forwarded from the quartermaster depots in the communications zone to the army distributing

points only in such quantities as can be consumed within 24 to 72 hours after receipt by using units, depending on climatic conditions and available facilities. With this limitation as to the holding period for perishables in the army area, the use of veterinary food inspection detachments is usually limited to employment with the quartermaster subsistence supply company. However, because of extremes in temperature experienced in certain theaters during World War II, the necessity for attaching veterinary food inspection detachments to task forces was demonstrated. The organization and supervision of the veterinary food inspection service in the field army is a responsibility of the field army veterinarian. Army food inspection laboratory facilities are provided by the medical field laboratory T/O&E 8–640.

356. FOOD INSPECTION SERVICE, COMMUNICATIONS ZONE

With the establishment of a communications zone, it becomes the link between the zone of the interior and the combat zone. It provides an area in the theater of operations for operation of the supply, evacuation transportation service, and other administrative services in support of the combat zone. It therefore becomes the predominant area for the discharge of veterinary food inspection responsibilities and duties. These responsibilities and duties are discharged through the use of veterinary food inspection detachments and assigned veterinary personnel of appropriate units.

Section IV. THEATER ANIMAL VETERINARY SERVICE

357. MISSION

The mission of the animal veterinary service of the theater is to provide veterinary care, treatment, and evacuation for military animals as well as the inspection and supervision of civilian and military animals in the theater and to advise relative to their control in order to prevent the transmission of communicable diseases to animals and humans. A schematic diagram of veterinary animal service is shown in figure 14.

358. THE ARMY VETERINARIAN

a. The responsibilities and staff relationships of the army veterinarian in the army are identical to those of the theater veterinarian in the theater, as enumerated in section II, paragraph 351. In accomplishing his mission, the army veterinarian specifically has the following staff functions:

(1) The planning for the evacuation, care, and treatment of army animals.

(2) The making of appropriate recommendations concerning all sanitary or animal health procedures that are necessary to protect the health of army and civilian animals from diseases or procedures that might be considered dangerous or potentially dangerous to their health.

(3) The training of all army veterinary personnel in those phases of animal care and management necessary to carry out the mission of the veterinary service.

(4) Recommendation for the procurement and employment of veterinary troops and their allocation to subordinate units.

(5) The recommending of suitable protective measures to prevent the introduction of communicable diseases into the Army from captured animals or the civilian animal population.

(6) The supervision of the evacuation of animals from forward areas to veterinary evacuation hospitals and the initiation of measures for the evacuation of animal casualties from the field army area.

b. The army veterinarian has operational control of all veterinary units in the army that are not assigned or attached to a subordinate element. Each such unit, however is autonomous in its internal administration, and the army veterinarian exercises his control through subordinate commands.

359. RELATIONSHIPS OF ARMY VETERINARIAN

a. With the veterinarians of subordinate units his relationship will depend, in large measure, upon the policies of the army commander. In all cases, however, the army veterinarian has technical supervision of all veterinary service for which the army commander is responsible.

b. With the theater veterinarian his relationships are similar to the relations of the unit veterinarian with the field army veterinarian. There must be coordination and cooperation between the two, the Army veterinarian keeping the theater veterinarian fully informed through proper channels of the veterinary situation in the field army. There is no direct command relation between them.

c. With the communications zone veterinarian he coordinates in the evacuation of animals from the field army and in food inspection as it applies to inter-zonal relations.

360. COMMUNICATIONS ZONE VETERINARIAN

The functions, responsibilities, and staff relationships of the communications zone veterinarian are comparable to those of the theater veterinarian, as determined by the organization of the communications zone. He is responsible for keeping the theater veterinarian fully informed on the status of the veterinary service of the communications zone and exercises technical supervision over veterinary units within the communications zone. He maintains close coordination with army veterinarians of supported armies.

Section V. ANIMAL VETERINARY SERVICE IN COMBAT

361. GENERAL

To accomplish the mission of the veterinary service, a system of evacuation, care, and treatment of animal casualties is organized in order to channel the sick and wounded animals from the forward combat elements to their final disposition within the army service area. Laboratory facilities required for animal disease control are provided by the Medical Field Laboratory T/O&E 8–640 and Medical General Laboratory T/O&E 8–650. The forward termini of the army veterinary service are at the veterinary dispensaries and aid stations of the combat units, and the rear termini are at the veterinary evacuation hospitals. In the care, treatment, and evacuation of animal casualties, their disposition at all levels in the chain of evacuation is based on the military economy of animals. A point may be reached at which extended evacuation is not justified. There must be a constant evaluation of animal casualties at all points in the evacuation chain to determine the manner in which these casualties should be handled in the light of military necessity and animal economy. The disposition of casualties may be any of the following:

a. Return to duty with their organization, when such disposition is feasible.

b. Evacuation to units farther in the rear of cases requiring further treatment.

c. Transfer to an army remount depot of those animals ready for duty or those that require a period of convalescence but no active treatment.

d. Destruction of such animals as are not economically salvageable.

362. UNIT VETERINARY SERVICE

Veterinary animal service is furnished to units which utilize animals either by organic veterinary detachments or by the attachment of veterinary animal detachments from T/O&E 8–500. The number of veterinary personnel will vary in accordance with the number of animals assigned and in accordance with the unit organization and function. The veterinary personnel are commanded by the senior veterinary officer assigned and may be organized as the veterinary section of the unit medical service. The veterinary section provides veterinary care and treatment, accompanies the supported unit in all tactical operations, and functions under the immediate control of the combat unit commander.

a. In combat the veterinary sections and veterinary attached personnel give emergency treatment at the aid station. The aid station is arranged so as to provide a receiving section where casualties are received and await treatment: a seriously wounded section for treatment of seriously wounded, a slightly wounded section for slightly wounded, and a forwarding section where casualties can await further evacuation. If gas casualties occur, they should be treated at some distance from the aid station. Duties of personnel at the aid station are not fixed but do follow a certain pattern. The unit veterinarian, being in command, must assume all responsibility for decisions and plans, and normally, being the only veterinary officer in the section, performs the major portion of the professional work. Animal casualties are examined and necessary emergency treatment given, either to enable them to return to duty or to prepare them for further evacuation. The combat unit commander normally approves the site selected by the veterinarian for establishment of the aid station; however, he may see fit to delegate full authority to the veterinarian to act as he deems best without obtaining approval prior to such action. This is a command decision of the commander. Normally, aid stations are not established during a rapid advance if they will be unable to maintain contact with their units. In any case, only that part of an aid station is established as the immediate circumstances require. Since elaborate treatment procedures are not initiated at the aid station, the accumulation of casualties retards evacuation to the rear and immobilizes the station. In the attack the battalion aid station is located as far forward as possible. Prompt evacuation is the crux of efficient veterinary support. An aid station is often moved by leapfrogging part of the personnel and equipment to another site. The remaining part continues to function until such time as the advanced portion is ready to re-

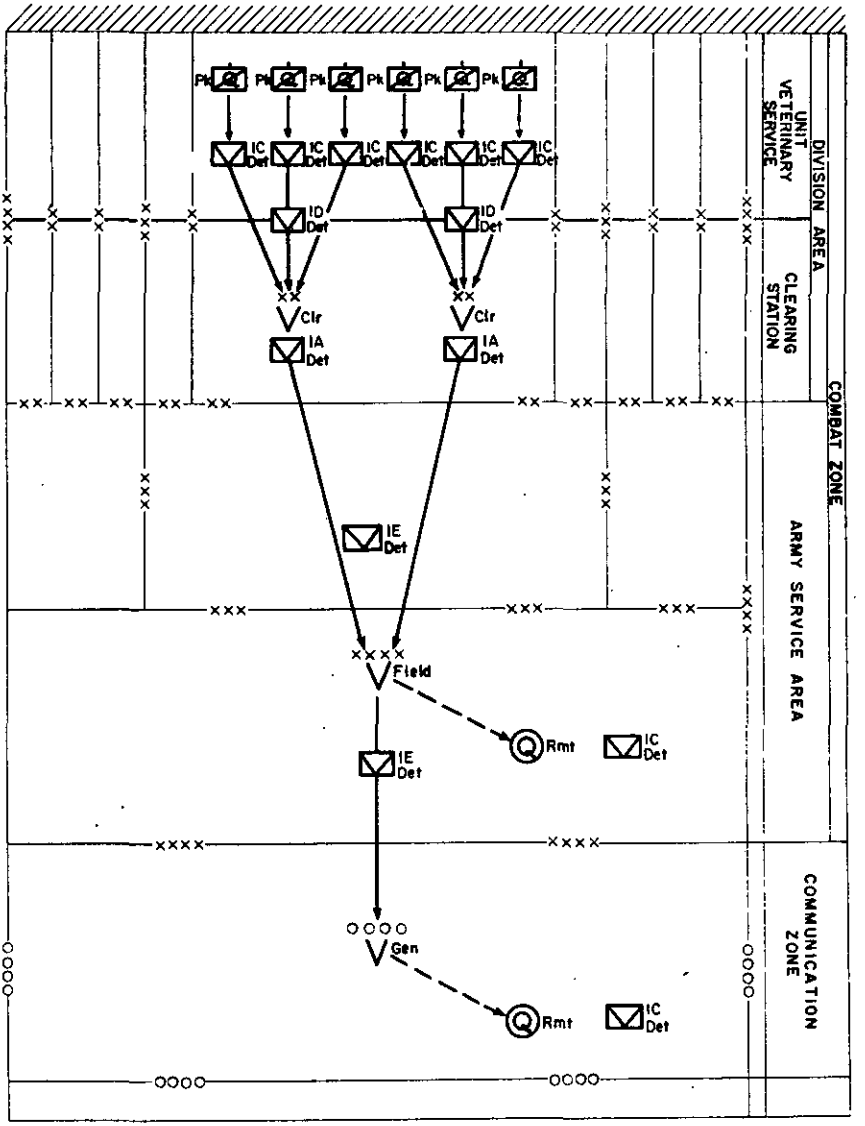


Figure 14. Evacuation flow chart veterinary service.

ceive casualties; then it moves to the new location, leaving attendants to care for any remaining casualties.

b. In noncombat situations the veterinary sections or veterinary personnel attached to units having no veterinary sections operate one or more dispensaries for the emergency care and treatment of all sick and injured animals of the regiment or smaller units and give treatment to those animals not requiring hospitalization.

363. DIVISION VETERINARY SERVICE

This consists principally in the evacuation of animal casualties from the aid stations of the combat elements to treatment stations established in the division area. The evacuation is normally carried out by veterinary evacuation detachments. This detachment, depending on whether casualties are walking or require transportation, can handle from 8 to 24 animals. It is the responsibility of the veterinary evacuation detachment to provide for emergency care and treatment of animals during movement, though no treatment other than required emergency treatment is performed.

a. Evacuation of animal casualties should be as expeditious as possible, keeping in mind the future military value of the animal casualty in light of the existing military situation. The evacuation may be conducted either by individual lead, lead lines, or ambulances. The type of terrain, weather, enemy activity, distance involved, availability of roads, personnel available, etc., all play a part in determining the method or methods of evacuation to be used.

b. It is the function of the veterinary evacuation detachment to maintain contact with the aid stations established by the various veterinary sections; to evacuate casualties from these stations; to establish collecting and treatment points, if necessary, along the chain of evacuation; and to establish ambulance loading points where necessary.

c. In combat where large numbers of casualties are expected to occur, the veterinary evacuation detachment gives closer support to the veterinary sections by setting up collecting points as near as is practical to the aid stations, relieving them of their casualties and evacuating them to a treatment station operated by a veterinary hospital detachment. These treatment stations are established in the division area to provide limited hospital facilities for those animals which may be returned to duty. Here casualties are sorted, and those which require more prolonged care and treatment are prepared for evacuation to a veterinary evacuation hospital where more extensive treatment can be carried out.

364. EVACUATION PROCEDURES

It is imperative that the veterinary evacuation detachment establish and maintain contact with the aid stations.

a. Each contact agent learns from the veterinary evacuation detachment commander the probable location of the veterinary

animal service detachment and then joins his assigned veterinary unit before it leaves its assembly area. He remains with the aid station personnel until the aid station is established, and then returns to inform the veterinary evacuation detachment commander of the location of the aid station. After reporting this location he proceeds to the aid station, leading the evacuation personnel with him. In this manner, the close contact is maintained between the station and the collecting or treatment stations. When such stations or sites are established before the attachment of contact agents, the latter may remain with the collecting station until its location is established and then go forward to seek the aid stations.

b. Contact agents remain with their respective aid stations and keep the commander of the collecting station informed of the tactical situation. This is usually accomplished by written messages. When an aid station moves its position, this information must be promptly reported, indicating the new position. Requests for veterinary supplies are also made by written message.

c. It is the responsibility of the senior veterinarian of the evacuation element to make plans for the veterinary support of attached units based upon their anticipated employment. The veterinarian of the attached unit must know the location, strength, and composition of the veterinary elements which will support and supply his veterinary section, and he must keep the supporting veterinary unit informed of the location of the aid station or stations.

365. CORPS VETERINARY SERVICE

Operation of the veterinary service in a corps when serving as a part of a field army is normally minimal. Operational control is usually retained by the field army. However, when operating as an independent or separate corps, all necessary elements of the veterinary service are assigned to the corps in order that adequate veterinary service can be provided for the performance of its mission. Veterinary operations then become identical with those of the field army.

366. FIELD ARMY VETERINARY SERVICE

a. The animal veterinary service in the field army generally consists of veterinary evacuation detachments and veterinary evacuation hospitals being augmented when necessary by veterinary hospital detachments. The allocation and operation of these units are dependent upon the animal population, terrain, etc.

b. The mission of the veterinary evacuation hospital is to provide treatment and care for short duration casualties; to furnish direct support to division veterinary service by relieving them of their animal casualties. As in medical services, sorting is continuous throughout the chain of evacuation. Cases requiring more extensive treatment than is possible at the evacuation hospital are prepared for further evacuation to the veterinary general hospital. Those ready for duty or convalescence are transferred to a remount unit. Those cases which cannot be restored to duty either because of their degree of injury or the military situation are destroyed.

367. VETERINARY SERVICE, COMMUNICATIONS ZONE

a. The scope of the veterinary service in the communications zone is established in accordance with the conditions existing in the zone. Under all conditions, it is necessary to establish a program for the prevention and control of animal diseases that might affect the health of the troops and/or the civilian population. If the situation involves the use of military animals, the responsibilities are further increased to provide a professional service for the prophylactic care and treatment of such animals as may be evacuated from the combat areas, or which may be received from the zone of the interior and other sources.

b. Unit veterinary service for communications zone units whose animal strength justifies such service is provided by the attachment of veterinary personnel or animal service detachments. Dependent upon the requirements of the situation, veterinary general hospitals, 500-patient capacity, veterinary field hospitals, 150- to 200-patient capacity, and veterinary hospital detachment teams, 30- to 75-patient capacity, are provided for care and treatment of animals, either evacuated from the combat zone or accruing in the communications zone. These units are designed primarily to provide more extensive treatment and to relieve the army veterinary evacuation hospitals of animal casualties. This constitutes the communications zone veterinary animal service. Evacuation of animals from the combat zone and within the communications zone is performed by veterinary evacuation detachments. Since animals are not evacuated to the zone of the interior, the various types of veterinary hospitals enumerated provide the rear termini of the animal chain of evacuation.

368. VETERINARY SERVICE FOR CAPTURED ANIMALS

All captured animals, because they present a potential if not an actual hazard to the health of army animals, must be given thor-

ough physical examinations by veterinary personnel. Thus this throws an additional load on all the veterinary personnel within the army area as it generally necessitates separate treatment and evacuation procedures. In addition, quarantine regulations for captured animals and the veterinary supervision incident thereto increases veterinary personnel requirements. Where the basic veterinary service must be augmented to care for these animals, the reinforcement may be provided by using other veterinary elements as may be required either singly or in that manner necessary to accomplish the mission of the veterinary service. This factor must be considered when preparing the veterinary plan.

CHAPTER 20

NEUROPSYCHIATRIC SERVICE

Section I. GENERAL CONSIDERATIONS

369. GENERAL

The neuropsychiatric service in a theater of operations is that portion of the theater medical service which is especially staffed, equipped, and trained to care for neuropsychiatric casualties.

370. MISSION

The primary mission of the neuropsychiatric service in a theater of operations is to conserve military manpower by returning all salvageable neuropsychiatric casualties either to combat or noncombat duty. Indiscriminate medical evacuation, particularly of neuropsychiatric casualties, results in a needless loss of combat personnel, and adversely affects the morale of those remaining in the combat area. Prompt and proper screening of psychiatric casualties is mandatory since combat zone installations are able to absorb peak loads only by retaining those cases which can be expected to return to combat duty. Experience has shown that proper screening, evaluation, and treatment of these cases by the theater medical service will result in the return of approximately 60 percent of all such casualties to combat duty, and an additional 30 percent to noncombat duty.

371. BASIC PRINCIPLES

The basic principles for handling of combat neuropsychiatric casualties in a theater of operations are as follows:

a. Treatment as Far Forward as Possible. The farther forward that neuropsychiatric casualties are treated, the greater are the chances of returning them successfully to combat duty.

b. Centralization of Facilities for Screening and Treatment. These facilities are located at the battalion aid station, the regimental aid station, and the clearing station within the division, the neuropsychiatric treatment station within the field army, and specialized neuropsychiatric hospitals within the communications zone.

c. Avoidance of Hospital Atmosphere. Although neuropsychiatric casualties present genuine sickness, the majority do not re-

quire typical hospital facilities, and actually such facilities may be detrimental to their recovery. In order to avoid a hospital atmosphere, neuropsychiatric casualties wear field uniforms and sleep on standard cots at all installations devoted to their care.

372. EVACUATION AND RETURN TO DUTY

Evacuation of neuropsychiatric casualties is ordinarily accomplished by the channels shown in figure 15. Return to duty of recovered neuropsychiatric patients is ordinarily accomplished by the channels shown in figure 16. When neuropsychiatric casualties are few in number, special treatment stations may not be required, and these casualties may be evacuated directly to convalescent centers.

Section II. REGIMENTAL NEUROPSYCHIATRIC SERVICE

373. THE REGIMENTAL SURGEON

a. The regimental surgeon is both the commanding officer of the regimental medical company and the surgeon on the staff of the regimental commander. He is directly concerned with the neuropsychiatric rate of the regiment and is vitally interested in preventing loss of combat manpower through unnecessary neuropsychiatric evacuations.

b. As commander of the regimental medical company, he is responsible for the training of his company and, under policies established by the division, directly influences and controls the neuropsychiatric screening and treatment procedures performed at the battalion aid stations by his battalion surgeons.

374. BATTALION AID STATION

a. Neuropsychiatric casualties are first evacuated to the battalion aid station from where a considerable portion may be returned to duty. They may be returned either directly or following mild sedation and rest. Casualties requiring longer treatment must be evacuated farther to the rear. The battalion surgeon in making his determination as to retention or evacuation must be governed by the following principles:

(1) *Initial sedation.* Certain incoming neuropsychiatric patients should be given sedation immediately on arrival at the aid station. This will considerably reduce the patient's tension and facilitate subsequent questioning and reassurance of the individual by the battalion surgeon.

(2) *Explanation and reassurance.* After preliminary sedation, brief inquiry is made of the neuropsychiatric pa-

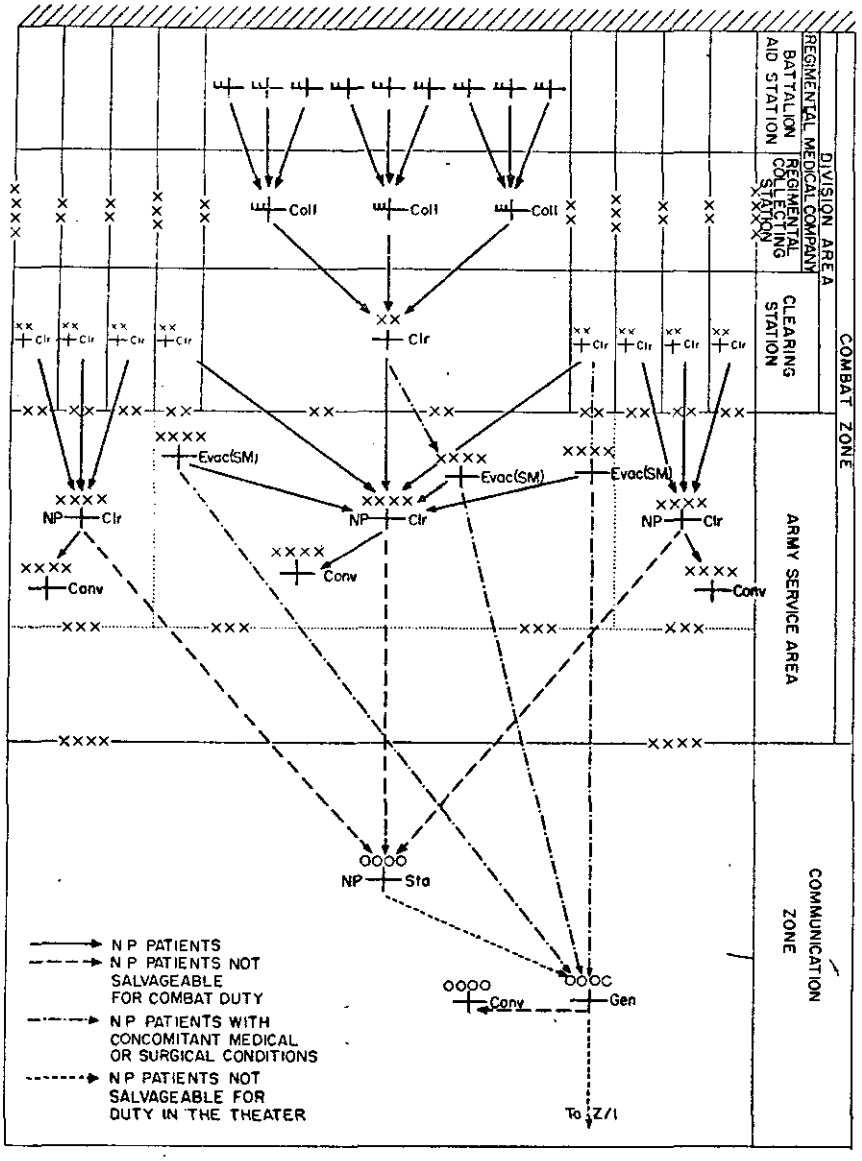


Figure 15. Evacuation of neuropsychiatric patients in a theater of operations.

tient as to his symptoms. When the battalion surgeon believes the patient salvageable, he may give the patient a brief explanation of the causes of his apparent disability; a reassurance that his condition is no more than normal; a suggestion that, with slight rest, he will soon be able to return to duty; and in occasional instances, an exhortation to return to duty.

b. By following the above procedures, the battalion surgeon can often successfully return to combat duty as many as 50 percent of all individuals presenting themselves to the battalion aid station as neuropsychiatric casualties. In contrast, if these same individuals are mistakenly evacuated, the percentage salvageable for combat duty will steadily decrease the farther they are taken to the rear. Treatment must be short. The battalion surgeon has little time to spend with any one case. He must learn to distinguish at a glance the incapacitated soldier, who must be evacuated to the rear, from one who can, within a short time, again be made effective.

c. Depending on the frequency with which the aid station must be moved, some individuals may be retained for periods of 24 hours for rest and mild sedation before being returned to duty. Evacuation should never be mentioned to these individuals. Instead, the suggestion should be given them that after a few hours' sleep, they will again be completely fit for duty.

375. THE REGIMENTAL COLLECTING STATION

This station acts as a buffer against loss of personnel from combat units. Screening procedures are established at regimental collecting stations to guard against unnecessary loss of personnel, as the result of neuropsychiatric disorders. Normally, no treatment is given to neuropsychiatric casualties at the regimental collecting station except for such sedation as may be required for further evacuation. However, personnel of the station operate neuropsychiatric screening procedures primarily directed toward those neuropsychiatric casualties who have not already been processed and diagnosed at battalion aid stations.

Section III. DIVISION NEUROPSYCHIATRIC SERVICE

376. THE DIVISION NEUROPSYCHIATRIST

The division neuropsychiatrist serves on the staff of the division surgeon and advises the division commander through the surgeon on policies, procedures, and conditions which affect the mental health of the command. It is his special concern to prevent loss of combat manpower from neuropsychiatric causes, and to insure that regimental and battalion surgeons, together with all of their operating personnel, are thoroughly grounded in neuropsychiatric screening and treatment procedures. During combat, the division neuropsychiatrist must:

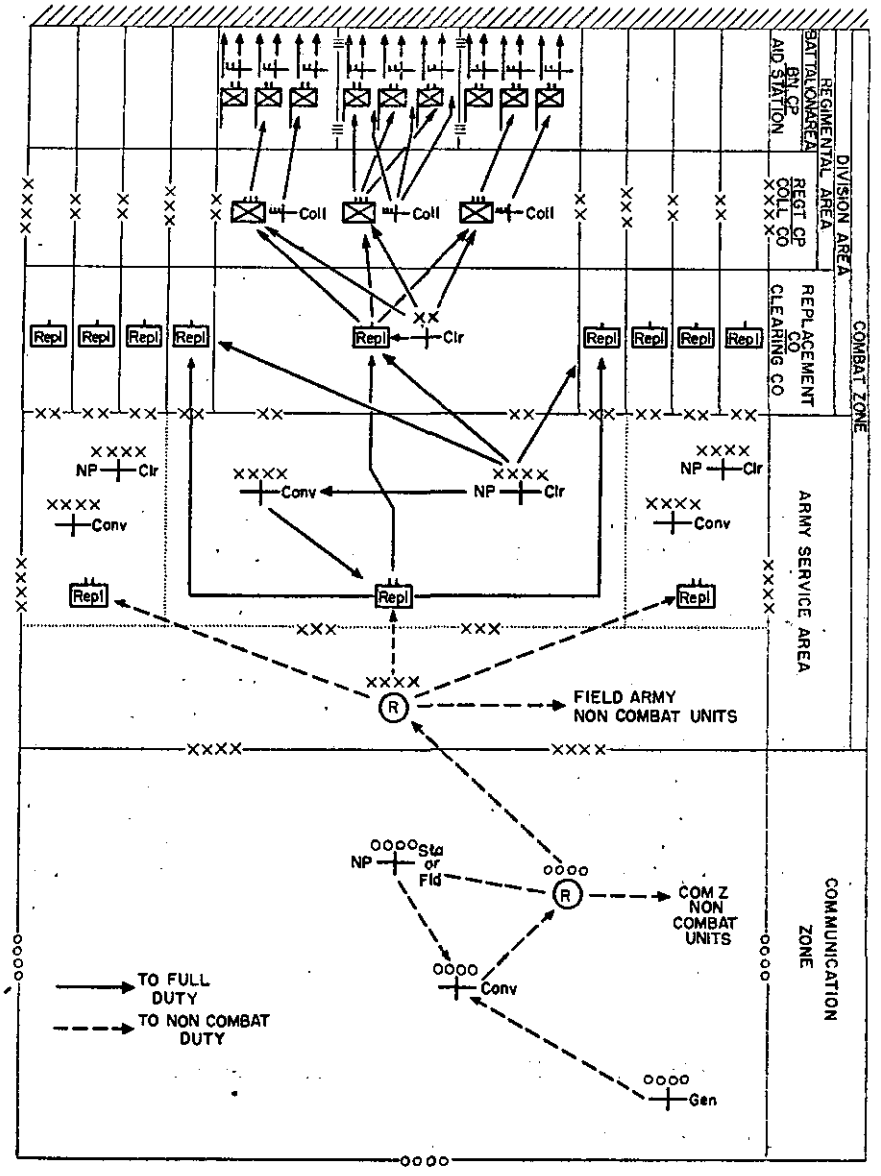


Figure 16. Channels for return to duty of neuropsychiatric patients in a theater of operations.

a. Keep himself informed as to the tactical situation. This is essential in order to assess the stress undergone by neuropsychiatric casualties, to evaluate their stories, and to know when to make preparations for heavy casualty increases.

b. Spend the major portion of his time at the clearing station in the capacity of a consultant in the diagnosis, treatment, and

disposition of neuropsychiatric casualties. The direct responsibility for the handling of these casualties resides in the personnel of the clearing company.

c. Maintain a close liaison with the division replacement company. This unit is normally established near division headquarters and receives all replacements for the division, including some of those from the clearing station. Those neuropsychiatric patients who, after treatment, require further combat indoctrination or training before rejoining their units normally are sent to this replacement company.

377. THE CLEARING STATION

The basic function of the clearing station is to treat and dispose of the casualties of a division. This is accomplished by sorting all casualties, rendering treatment within the capabilities of the station returning the fit to duty and evacuating the unfit.

a. The clearing station is the principal installation of the division in the handling of neuropsychiatric casualties and as such is provided with professional neuropsychiatric personnel for the diagnosis, treatment, and disposition of such casualties. These casualties are sorted into:

(1) Those considered salvageable for further combat duty in the division within the time limits established under current policies.

(2) Those requiring prolonged care and treatment and who are not considered salvageable for combat duty in the division within the time limits established under current policies.

(3) The determination of the policy as to the length of time that any casualty may be retained in the clearing station is dependent upon the tactical situation and the necessity for maintaining the mobility of the station. Short-term cases normally are retained within the division area and are returned to duty either directly or through the division replacement company.

b. Treatment of neuropsychiatric cases retained at the clearing station should include the following essentials:

(1) *Segregation and comfort.* Neuropsychiatric patients are usually placed in a separate tent somewhat apart from the main elements of the clearing station. Blankets, food, hot drinks, and other necessities are furnished as required.

(2) *Sedation.* Sufficient sedation is usually given to tense, anxious patients to insure sound sleep for 12 to 24 hours. However, little or no sedation may be required for patients whose symptoms are not marked, or who have been subjected to minimal stress.

(3) *Interview.* When possible, casualties are interviewed briefly upon admission. Subsequently, they are given a second interview lasting, when possible, from 10 to 20 minutes. At the conclusion of this interview it may be decided to evacuate farther certain of these patients.

(4) *Rest and reconditioning.* For those retained casualties with reactions sufficiently severe to warrant it, 1 to 3 days of treatment at the division clearing station are devoted to rest, orientation, and reconditioning training. A duty atmosphere must be fostered. When possible this regiment is supervised by a line officer.

c. Experience has proved that, by utilizing the principles outlined above, depending on the situation, up to 60 percent of all those neuropsychiatric casualties treated at the clearing station can be successfully returned to duty either directly or through the division replacement company.

Section IV. FIELD ARMY NEUROPSYCHIATRIC SERVICE

378. FIELD ARMY NEUROPSYCHIATRIST

The army psychiatrist is assigned to the staff of the army surgeon. He maintains close liaison with other staff specialists and with the theater consultant in psychiatry on problems of mutual interest. He is responsible for the following functions:

a. Advise the field army surgeon on all matters pertaining to neuropsychiatry.

b. Maintain intimate contact with all neuropsychiatric installations within the field army areas, and technically supervise their service.

c. Maintain contact with the surgeon at various levels of the command in order to become intimately acquainted with the neuropsychiatric problem.

d. Maintain contact with division neuropsychiatrists; and plan, supervise, and recommend appropriate screening, treatment, and evacuation procedures for neuropsychiatric casualties and patients to insure optimum care, treatment, convalescent care, early return to duty, reassignment when indicated, and proper utilization or disposition of noneffectives within the command.

e. For further information in regard to the functions of the neuropsychiatrist, see AR 40–605.

379. NEUROPSYCHIATRIC TREATMENT STATION

This station is formed by the augmentation of the clearing company, separate, with psychiatric detachments from T/O&E 8–500. Three such detachments are normally allocated to each field army on the basis of one detachment per corps. Normally the treatment station is located in the forward part of the field army service area and operates under the control of the field army. These stations are established by the field army surgeon as the situation dictates and are the principal focal points for the reception of neuropsychiatric casualties from the division, from corps, and from field army units and installations. All neuropsychiatric casualties normally pass through one of these stations prior to evacuation from the field army area unless a concomitant medical or surgical condition precludes such action. Casualties are held normally not to exceed 5 to 8 days or for a longer or shorter period as the tactical situation and current policies may dictate. Casualties considered salvageable for duty in the field army are not evacuated farther unless the necessity for maintaining mobility dictates otherwise. Those patients not considered salvageable for duty within the field army are evacuated to the communications zone. Normally, recovered casualties are returned to their units, either directly through field army replacement channels or, should further conditioning be required, they may be sent to the convalescent center, army. The neuropsychiatric treatment station provides the following essential services:

a. Separate treatment of neuropsychiatric casualties in a nonhospital atmosphere.

b. Further screening of casualties to insure a minimum loss of combat personnel.

c. A collecting point for handling an overflow of neuropsychiatric patients from rapidly moving or overcrowded clearing stations.

380. CONVALESCENT CENTERS

The convalescent center (army) contains organic neuropsychiatric personnel for the reconditioning of neuropsychiatric casualties. Normally located in the forward part of the field army service area, the convalescent center is allocated to a field army on the basis of one per army corps. Neuropsychiatric casualties who are considered salvageable for duty within the field army and who

require further reconditioning are ordinarily sent from the neuropsychiatric treatment station to the convalescent center. Following neuropsychiatric reconditioning, patients are returned to their units from the convalescent center directly through field army replacement channels.

381. EVACUATION HOSPITALS

No recognized neuropsychiatric casualties are evacuated to this unit except for treatment of concomitant medical or surgical conditions (figure 15). These units are provided with limited neuropsychiatric complements. They are located in the forward part of the field army service area and normally are in direct support of each division. A neuropsychiatrist in each evacuation hospital has the primary duty of screening out those neuropsychiatric casualties not previously recognized as such and the disposition of such casualties to neuropsychiatric treatment stations. In addition, he provides neuropsychiatric consultation for medical and surgical patients.

Section V. COMMUNICATIONS ZONE NEUROPSYCHIATRIC SERVICE

382. GENERAL

The neuropsychiatric service of the communications zone completes the neuropsychiatric service in the theater of operations. This service is carried on in station, field, or general hospitals. It renders care and treatment to neuropsychiatric cases arising in the communications zone and to cases evacuated from the field army; and prepares neuropsychiatric cases for evacuation to the zone of the interior. Duties of this service include:

a. The investigation of all forms of neuropsychiatric disorders arising in a theater of operations.

b. The interpretation of etiologic factors producing these disorders.

c. The formulation of standards for evaluating the prognosis and therapy of neuropsychiatric casualties.

d. Proper preparation of neuropsychiatric cases for evacuation to the zone of the interior.

383. STATION AND FIELD HOSPITALS

a. Neuropsychiatric station and field hospitals may be established for the treatment of neuropsychiatric casualties by augmenting normal station or field hospitals with neuropsychiatric

detachments. Normally they are established under tentage in order to facilitate operation and prevent an atmosphere of hospitalization. The function of these specialized neuropsychiatric hospitals is to provide hospitalization for those neuropsychiatric casualties who have been evacuated from the combat zone and who are considered salvageable for duty within the theater.

b. Psychotic patients normally are not treated in neuropsychiatric station or field hospitals but are transferred directly to the general hospital.

384. NEUROPSYCHIATRIC CASES ARISING IN THE COMMUNICATIONS ZONE

These cases are handled in local station hospitals and transferred to specialized or general hospitals for care and treatment as may be necessary.

385. GENERAL HOSPITALS

The general hospital is normally utilized in the neuropsychiatric service of the theater of operations to provide hospitalization for those patients not considered salvageable for duty within the theater. These, in general, are the psychotic or seriously ill neuropsychiatric casualties from both the combat and communications zone.

a. In order to handle heavy loads of neuropsychiatric patients, the general hospital may be augmented with neuropsychiatric detachments.

b. A general hospital operating in a hospital center may be devoted entirely to the care of neuropsychiatric casualties by augmentation with additional neuropsychiatric personnel as needed.

CHAPTER 21

DENTAL SERVICE

Section I. GENERAL CONSIDERATIONS

386. MISSION

The mission of the dental service in a theater of operations is to assist in the preservation of the strength of the military forces by maintaining the dento-oral health of all military and civilian personnel under the jurisdiction of the command. This mission is accomplished by the establishment of a network of dental services to prevent excessive rearward evacuation for routine or emergency dental treatment.

387. GENERAL RESPONSIBILITIES

The dental service in a theater of operations provides dental care and treatment for all military and civilian personnel under the jurisdiction of the command. It is responsible for the:

a. Institution of preventive measures to reduce the incidence of dental disease.

b. Preparation and consolidation of dental reports, returns, and records for the information of higher authority, for use in future planning, and for assistance in the future adjudication of claims.

c. Training of dental personnel, including enlisted and civilian personnel assigned or detailed to the dental service.

d. Development and preparation for issue, of policies and procedures pertaining to the dental service.

e. Investigation of local factors which have a bearing on the dental health of the command.

f. Care, safekeeping, and maintenance of stocks of dental supplies and equipment issued to the dental service.

g. Coordination of the dental service with other services of the Army.

388. GENERAL DOCTRINES

a. Commanders at all levels are responsible for the provision of adequate and proper dental care for all personnel, both military and civilian, of their command.

b. Dental service must be so organized and so dispersed that personnel move a minimal distance to the rear to receive dental attention. Division personnel are not evacuated from the division, nor are other combat personnel evacuated from the combat zone to receive routine dental attention. Personnel requiring specialized dental care are evacuated through normal medical channels of evacuation.

c. Dental services must be disposed so as to render a maximum service to the greatest number.

d. Dental surveys and follow-up treatment must be continuous to avoid deterioration of the dental health of the command.

e. The maximum of definitive dental treatment must be accomplished for combat troops whenever or wherever such troops are not in actual combat.

f. The most efficient utilization of dental personnel results from the operation of group clinics whenever the tactical situation and troop dispersal warrant.

g. Dental standards must be uniform throughout the theater of operations. Dental procedures accomplished in the forward areas must be of the same quality as similar procedures accomplished in the rearward areas.

389. DENTAL SUPPLIES AND EQUIPMENT

a. The medical supply agencies of the various levels of command are responsible for the procurement, storage, and issue of dental supplies and equipment. Dental units and services procure such supplies and equipment through normal medical supply channels.

b. The staff dental officers are responsible for keeping the corresponding medical supply agency informed as to the dental supply and equipment needs of the dental service.

Section II. STAFF DENTAL SURGEONS

390. GENERAL

Each of the commanders in the theater of operations (the theater commander, the theater Army commander, the army commander, communications zone commander, commanders of territorial subdivisions of the communications zone, and commanders of major tactical commands) is provided with a dental surgeon as a member of his respective special staff. The commander of a theater or a subordinate commander is responsible for the dental

service within his command, and, in turn, he normally holds his staff dental surgeon responsible for developing and administering this service.

391. DUTIES OF THE STAFF DENTAL SURGEON

The duties of the staff dental surgeon are to:

a. Exercise operational control, in the name of the commanding officer, of all dental units which are not assigned or attached to a subordinate command.

b. Advise the commander and staff on matters pertaining to the dental service of the command and occupied territories.

c. Determine requirements for dental supplies and equipment and inform the surgeon and/or the supply agency of the medical organization of the command as to those requirements.

d. Make recommendations for procurement and employment of dental troops and their allotment to subordinate units.

e. Prepare the technical portion of the training program and supervise, in the name of the commanding officer, the over-all program for dental units under his operational control. Exercise technical supervision over dental training throughout the command.

f. Plan and supervise dental service operations, including the following:

(1) The operating efficiency of all dental services.
(2) Adequacy of dental equipment and supplies.
(3) Quality of dental service rendered.
(4) Care and supervision of use of supplies and equipment.
(5) Adequacy and correctness of required records or reports.
(6) Morale of dental personnel.

g. Prepare reports on the dental activities of the command.

392. THE DENTAL SURGEON AND THE GENERAL STAFF

The activities of the dental service require that the dental surgeon deal with various sections of the general staff or, in commands lacking one or more general staff sections, with the staff officers discharging such general staff functions. He deals with general staff sections in regard to various functions as indicated in FM 101–5.

393. THE DENTAL SURGEON AND THE SPECIAL STAFF

When the operations of the dental service require coordination and cooperation with other special staff sections, such procedures

may often be accomplished in an informal manner, although formal procedures are adopted when necessary. A discussion of the duties of such staff agencies is contained in FM 101–5.

Section III. ORGANIZATION AND OPERATION

394. GENERAL

The dental service of a theater of operations is of four types: division dental service, hospital dental service, area dental service, and supplemental dental service. Division dental service is the dental service rendered to the division by division dental personnel. Hospital dental service is the dental service rendered patients and assigned personnel by the dental personnel of hospitals. Area dental service is the dental service rendered to all other personnel by dental service detachments. Supplemental dental service is the dental service rendered in support of any of the above, by mobile and fixed prosthetic detachments, by central dental laboratories, or by fixed dental clinics as may be required.

395. DIVISION DENTAL SERVICE

All dental personnel of the division are assigned to the medical battalion of the division. The division dental surgeon is charged with the technical supervision of such personnel. It is his responsibility to recommend the utilization of the dental personnel and equipment to the end that dental service is provided under all conditions and on an equitable basis to personnel of the division. As a result of changes in the tactical situation requiring constant change in division dispositions, no standard procedure is followed in the employment of the division dental personnel and equipment. The basic principles underlying such procedures are as follows:

a. Normally, one dental team consisting of one dental officer and one enlisted assistant is attached to or located near the regimental collecting station of each infantry regiment when such organizations are committed to action. Thus, routine dental treatment is provided well forward, and further rearward evacuation for such treatment is prevented.

b. Dental treatment for artillery units is provided by the nearest infantry regimental collecting station or by the clearing station of the medical battalion. Even though the regimental collecting station may be forward of the artillery, it is often more feasible to send such dental emergencies to that point than to evacuate them to the clearing station. Circumstances, however, will dictate the choice. This same principle applies to other units of the division in forward combat areas.

c. Jaw injuries and wounds involving the jaws are evacuated through normal medical channels of evacuation.

d. When units of a division are withdrawn from combat or held in a reserve position, dental personnel are made available to perform the maximum of dental service during such periods.

e. Normally dental service is established whenever possible in areas of troop concentrations.

f. During combat, the major dental effort is directed toward those units in the service area of the division.

g. In noncombat situations the major effort is directed toward the combat elements of the division.

h. Utilization of dental personnel in group clinics is preferable wherever troop concentrations warrant. This is particularly applicable in noncombat situations and in the rearward areas when the division is committed to action.

i. When the division is in action the prosthetic truck normally is located at a centralized point, readily accessible to those who are sent to the rear because of broken or lost dentures. The clearing station is such a point and is a logical location. No individual is evacuated beyond the division area for prosthetic reasons. When the division is not in action, the prosthetic truck may be used on an itinerant basis, or established at one of the group clinics.

j. The dental service must be flexible at all times. The motor equipment of the dental section of the medical battalion should be used judiciously to maintain such flexibility in order that maximum dental service may be made available to troop concentrations whenever the tactical situation permits. Every favorable opportunity is utilized to render definitive dental treatment in order to avoid deterioration in the dental health of the division.

396. HOSPITAL DENTAL SERVICE

Hospital dental service includes the dental services of numbered general and station hospitals, field hospitals, evacuation hospitals, and convalescent centers. Although convalescent centers are not classified as hospitals, the dental services of these centers are grouped with the hospital dental services, since their administration and functions are nearly identical. The hospital dental services, by providing dental treatment for the hospital patient, prevent loss of duty time for dental treatment subsequent to the patient's return to a duty status. This is an important consideration in the conservation of manpower.

a. General Hospital. The dental service of the general hospital is under the direct supervision of the chief of dental service, who

in turn is directly responsible to the hospital commander. General hospital dental service varies in accordance with the bed capacity of the hospital as to the number of dental personnel and amount of equipment. Otherwise, the dental service of all general hospitals is the same. It provides dental care for all hospital patients and personnel. It is staffed and equipped for the treatment of all types of dental injuries and diseases. Systematic survey and follow-up treatment are instituted early for all patients, not only in relationship to the disease or injury for which hospitalized, but to the end of accomplishing all required dental treatment while on a nonduty status.

b. Station Hospital. Station hospital dental service is practically the same as that of the general hospital. It is under the supervision of the chief of the dental service, who is directly responsible to the hospital commander. As in the case of the general hospital, personnel and equipment are authorized in accordance with the bed capacity of the hospital. A routine system of survey and early follow-up treatment is established for all patients. The authorization of dental equipment for a station hospital lacks only a few specialized items peculiar to the general hospital. Because of personnel limitations, the dental service of these hospitals cannot break down into specialty sections as readily as in the larger general hospitals. Normally neither the oral surgical nor prosthetic demands of these hospitals require the full time of one dental officer.

c. Field Hospital. The field hospital is organized into a headquarters and three identical hospitalization units. Each hospitalization unit is so organized that it is capable of independent action. The dental officers included in the professional complement are normally assigned in equal increments to the hospitalization units when those units are engaged in performing their primary mission. When the hospital functions as a single unit, it has a capacity of 400 beds. Each hospitalization unit when detached from the parent organization and operated independently has a capacity of 100 beds. When the hospital functions as a single unit, the dental officers and enlisted assistants establish a single hospital dental service. When a hospitalization unit is detached from the parent unit, one dental officer and one enlisted assistant normally accompany the unit to provide dental service for patients and hospital personnel. Dental laboratory or x-ray equipment is not authorized. Required dental laboratory procedures are accomplished by available station or general hospitals or by the prosthetic team of the dental service detachment of the area. If the hospitalization unit is located in an isolated area, augmentation with field dental labora-

tory equipment is necessary. Required x-ray service is furnished by the general x-ray service of the unit.

d. Evacuation Hospital. The dental service of an evacuation hospital is responsible for the dental care of the hospital patients and personnel. Since the average patient's stay in an evacuation hospital is of limited duration, dental treatment is usually limited to that of an emergency nature, although definitive treatment is accomplished when possible. The oral surgeon aids the surgical service in the treatment of wounds involving the jaws. Only such definitive treatment of jaw injuries is initiated at the evacuation hospitals as is necessary for evacuation to the general hospital.

e. Convalescent Centers. Convalescent centers are of two types: the convalescent center, army, with a rated capacity of 1500 patients, and the convalescent center of the communications zone with a rated capacity of 3000 patients. The organization and functions of the dental services of these two centers are the same, varying only in the number of dental personnel in each. The dental service is under the supervision of the chief of dental service, who is directly responsible to the center commander. All incoming patients are surveyed and early follow-up treatment is initiated. Since these are convalescent patients, they are readily available for treatment, simplifying the problem of completing all required dental treatment prior to discharge and return to duty status.

397. AREA DENTAL SERVICE

The dental service detachment (T/O&E 8–500) (team KJ) is the principal element of area dental service. It provides dental service within prescribed areas for all personnel not provided with such organic service.

a. The dental service detachment consists of a detachment headquarters; five mobile operating teams, each having one dental officer and one enlisted assistant; two semimobile teams of two dental officers and two enlisted assistants each; one semimobile team of four dental officers and four enlisted assistants; and one mobile prosthetic team of one officer, one enlisted chair assistant, and three enlisted dental laboratory technicians.

b. These detachments are assigned to the theater of operations on the basis of one detachment per 15,000 nondivisional strength or major fraction thereof and are reassigned or attached to major commands within the theater as required. It is the responsibility of the dental surgeon of the command, in the name of the commanding officer, to distribute on an area basis the dental service detachments assigned to the command, holding the commander of

each detachment responsible for the dental care of nondivision and nonhospital personnel within his prescribed area.

c. In the utilization of the various teams of the detachment, the commander of the dental service detachment is governed by the concentration or dispersal of troops within his allotted area. Where troops are widely dispersed, the mobile teams are used on an itinerant basis to render service to isolated or outlying units. The semimobile teams are located separately, each establishing a clinic; or they may be combined to establish larger clinics in accordance with concentrations of personnel within the prescribed area. If the concentration of troops so warrants, all teams may be combined into a single clinic, utilizing unit tentage or available buildings. The flexibility of the unit must be utilized at all times to meet existing situations, breaking down into basic teams when necessary, but combining teams into group clinics whenever possible.

d. The prosthetic team of each dental service detachment is utilized as circumstances dictate. It may operate singly, in conjunction with one or more of the semimobile teams, or form a part of a central clinic when established.

398. SUPPLEMENTAL DENTAL SERVICE

Supplemental dental service is provided by various dental detachments of T/O&E 8–500. These consist of dental operating detachments (team KI); dental prosthetic detachments, mobile (team KK); dental prosthetic detachments, fixed (team KL); dental clinics, fixed (team KM); and central dental laboratories (team KN). An organization chart of the dental service detachment is shown in figure 17.

a. The dental operating detachment is normally assigned on the basis of one detachment per 1000 troops in isolated areas. In theaters of operations where dental service detachments are utilized and the troops of isolated areas are a part of the theater military strength, dental service to such isolated areas would normally be provided by the utilization of dental service detachments in whole or in part. However, if an isolated area is to be permanently garrisoned and of such strength as not to warrant a complete dental service detachment, it is advisable to utilize dental operating detachments to provide dental service. This avoids the break-up of a dental service detachment for a prolonged or undetermined period of time. The utilization of dental operating detachments, or teams of the dental service detachments, should be a theater decision based upon the recommendation of the theater army dental surgeon.

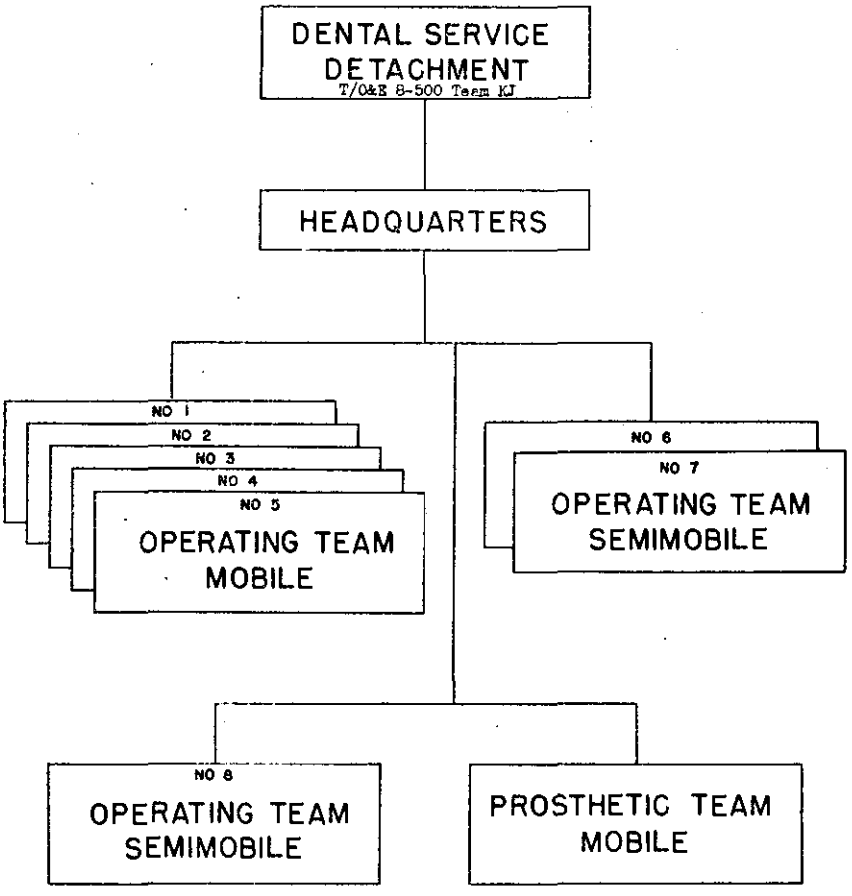


Figure 17. Organization chart dental service detachment.

b. The dental prosthetic detachment, mobile, is assigned to a theater of operations on the basis of one detachment per each 30,000 of nondivisional military personnel. Within the theater these teams are assigned to subordinate commands in accordance with local needs, but normally in the same ratio of one per each 30,000. These teams are normally utilized to supplement the prosthetic services of the division and area dental services.

(1) Those assigned to a field army are under the operational control of the army dental surgeon. They are normally used to supplement the prosthetic services of the divisions and of the dental service detachments furnishing dental service to nondivisional troops of the field army. When supplementing divisional dental service, they are normally attached to the division under the operational control of the division dental surgeon.

(2) Those allocated to the communications zone are assigned to the various territorial subdivisions of the communications zone and are under the operational control of the dental surgeon of such subdivision headquarters. They are utilized in the communications zone to supplement the prosthetic services of the dental service detachments.

c. The dental prosthetic detachment, fixed, provides supplemental dental laboratory facilities in a communications zone. They are utilized to establish small central dental laboratories, under the operational control of the dental surgeon of the communications zone or of the dental surgeon of a territorial subdivision, if attached to such subdivision. The movement of these units is the responsibility of the headquarters under which they function.

d. The dental clinic, fixed, and the central dental laboratory are assigned to a theater of operations when large concentrations of troops require such facilities. They are usually located in large cities where military populations are dense. They operate under the control of the dental surgeon of the headquarters to which assigned.

The central dental laboratory fabricates dental appliances and thus relieves overloads of prosthetic services over as large an area as adequate communications permit.

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☆ U. S. GOVERNMENT PRINTING OFFICE: 1951—914943