CHAPTER 4

SUPPORT TO TACTICAL OPERATIONS

Section I. INTRODUCTION

4-1. General

a. Current combat operations doctrine enlarges the battlefield, stressing unified air and ground operations throughout the TO. It recognizes elements of combat power, including maneuver which has the same importance as fire power. It acknowledges the importance of NBC and DE weapons/devices and EW and their effects on combat operations.

b. Operations will be conducted across the operational continuum and in differing environments. The timely and efficient delivery of health care on the battlefield is governed by the METT-T factors, as well as CHS considerations.

c. Support to light/heavy and heavy/flight force mixes is discussed in Section V.

4-2. Combat Health Support Considerations and the Mission, Enemy, Terrain, Troops and Time Available Factors

All military operations are influenced by the METT-T factors. These factors form the basis of the commander's estimate and plan and have a significant impact on CHS operations. (The CHS estimate and plan are discussed in Appendix B).

a. The CHS mission is dictated by the tactical commander's intent, overall concept of the operation, and the OPLAN. Combat health support operations must be closely synchronized with the tactical operations to ensure that sufficient resources are allocated at the proper place and time on the battlefield. If NBC operations are planned, considerations for the decontamination of patients must also be included (FM 8-10-7).

b. The capabilities of the enemy to inflict casualties and the type of operation to be conducted (offensive, defensive, or retrograde) significantly influence the numbers and placement of casualties that will be generated on the battlefield. Further, if large numbers of EPW are anticipated, an increased burden may be placed on the CHS system to treat EPW patients.

c. The terrain (to include weather) on which the operation will be conducted—

- Influences the placement of CHS assets.
- Dictates requirements for specialized clothing and equipment (such as in extreme cold weather or mountain operations).
- Affects maintenance requirements for ground ambulances, air ambulances, and other vehicles and equipment (such as in a desert environment).

- Influences the expected lines of patient drift (most likely routes injured or wounded soldiers will follow to reach medical assistance).
- Affects the areas of anticipated patient densities (such as in valleys or along river banks).
- Influences evacuation times and routes.
- Affects the types of anticipated injuries (such as more crush injuries, fractures, and sprains are encountered on mountainous terrain; more skin conditions [rashes, immersion syndrome, and infections] occur in a jungle environment).

d. The overall health of the command, the use and enforcement of PVNTMED measures, the integration of CSC principles, and other CHS factors and initiatives influence the effectiveness of the combat soldier to perform his mission. Without adequate CHS, troop health and morale will decrease resulting in an increase of the combat ineffectiveness level in supported units.

e. On the battlefield, time takes on an added significance when applied to CHS operations. It is essential to minimize the time between wounding and treatment and evacuation. As the time element increases before the casualty is treated, his prognosis for a favorable recovery decreases. Time is also important once the patient has been initially treated and requires further treatment at a higher echelon of care. If evacuation time is lengthy due to the tactical situation or the nonavailability of evacuation assets, complications may arise which further adversely effect the prognosis.

4-3. Generation of casualties

a. The numbers and types of casualties generated in an operation will vary depending upon such factors as the—

- Weapons employed and their relative fire power.
- Size and experience of the opposing force.
- Degree of risk of the operation.
- Type of terrain and the advantages and/or disadvantages it provides.
- Type of climate.
- Health of the command (troops) (to include immunizations and chemical prophylaxis).
- Type of environment (NBC or DE).

- Prevalence of endemic and epidemic diseases in the AO.

b. For information on estimating the number of casualties for a specific type of operation, refer to FM 8-55.

Section II. OFFENSIVE OPERATIONS

4-4. General

Combat health support in offensive operations strives to quickly clear the battlefield for the tactical commander, thus enabling him to fully exploit opportunities as they occur in battle. Combat health support resources must be positioned throughout the battlefield in such a manner that they may be swiftly relocated depending on changes in the tactical environment.

4-5. Characteristics of Offensive Operations

An offensive operation is conducted to destroy or bring under control the forces or areas critical to the enemy's overall defensive organization. Offensive operations are characterized by aggressive initiative on the part of tactical commanders, by rapid shifts in the main effort to take advantage of opportunities, by momentum, and by the deepest and most rapid destruction of enemy defenses possible.

4-6. Types of Attacks

There are two basic types of attack. These are the hasty attack and the deliberate attack.

a. The hasty attack is conducted either as a result of a meeting engagement, or when bypass has not been authorized and the enemy force is in a vulnerable (unprepared or unawares) position. Hasty attacks are initiated and controlled with fragmentary orders (FRAGOs).

b. Deliberate attacks differ from hasty attacks; they entail comprehensive planning based on detailed information, thorough preparation, and rehearsals. Deliberate attacks normally include large volumes of supporting fires, main and supporting attacks, and deceptive measures.

c. Combat health support is provided to hasty and deliberate attacks based on the forms of maneuver which will characterize the operation.

4-7. Combat Health Support to Offensive Operations

a. The following are essential characteristics of CHS in the offense:

(1) As areas of casualty density move forward, the routes of evacuation lengthen, resulting in the forward displacement of MTFs and medical evacuation assets.

(2) The heaviest patient work loads occur during disruption of enemy main defenses, at terrain or tactical barriers, and during assaults on final objectives.

(3) The major casualty area of the division is the zone of the main attack. As the attack accomplishes the primary division objective, it receives first priority in the allocation of combat power and related CS and CSS. The division commander's allocation of forces indicates roughly the areas which are likely to have the greatest casualty density. The surgeon allocates his CHS resources accordingly.

(4) Echelon II CHS elements may be required to furnish temporary EMT to refugees, displaced persons, and indigenous civilians. This care is only given if it does not adversely impact on providing CHS to US Forces. Care is provided as a humanitarian act and to prevent interference with tactical operations. The extent of the support is determined by the tactical commander; however, assistance is normally confined to EMT and ATM. These patients are transferred to civilian facilities as soon as their medical conditions and the tactical situation allows.

(5) If high numbers of refugees are anticipated, PVNTMED resources may require augmentation or reinforcement to support any temporary camps or holding areas where responsibility has been accepted by US Forces. Coordination with supporting civil affairs elements is required as early in the planning process as possible.

(6) As with refugees and other indigenous civilians, some EPW will require EMT or ATM. The care and treatment to be afforded to EPW is governed by the Geneva Conventions (Appendix A). Accurate forecasting of the expected number of EPW is required for the surgeon to determine CHS requirements and allocate his resources accordingly. Field Manual 8-55 provides planning guidance for estimating the CHS requirements for EPW patients.

NOTE

Historically, the number of EPW has been underestimated and caution should, therefore, be used when estimating requirements. Underestimating requirements may result in a degradation of CHS for US Forces.

(7) Combat health support elements are not kept in reserve. Although reserve forces are one of the keys to offensive operations, the CHS elements supporting these units are performing

their daily CHS mission and are not considered to be reserve forces. When the reserves are committed, these CHS elements deploy with them.

b. Initially, all division MTFs are located as far forward as combat operations permit. This technique allows maximum use of these facilities at the initial location, thus enhancing the overall effectiveness of support.

c. Echelon II medical care is provided on an area support basis. Elements of division CHS assets may be attached or placed under the OPCON of a specific brigade when that brigade—

- Is assigned an independent mission.
- Undertakes an operation likely to disperse its elements over unusually great distances.

d. The forward movement of the division offsets, to a degree, the inherent difficulties for providing CHS based on patient work load. The work load is usually heaviest during offensive operations. As advancing combat formations extend control over the battle area, supporting CHS elements overtake patients. This facilitates the acquisition of the wounded and reduces the time elapsed between wounding and treatment.

e. Two problems experienced in providing CHS during offensive operations are–

- *Contact with supported unit.* Contact with the supported unit must be continuous. The responsibility for maintaining contact falls to the higher CHS echelon (rear to front). Contact is maintained through medical evacuation elements operating within and between echelons of CHS.
- *Mobility.* The evacuation assets and treatment elements must have the same or greater mobility than the supported unit. If the CHS assets are not sufficiently mobile, they will not be able to remain in contact with the supported tactical elements.

f. Medical evacuation support in offensive operations is dependent upon the tempo of the battle, the placement of treatment elements on the battlefield, the availability and mobility of evacuation assets, and the terrain and weather.

- Techniques which can be used during offensive operations are–
  - Establishing patient collecting points which concentrate patients awaiting evacuation along primary and secondary evacuation routes.
  - Designating AXPs where the patient can be transferred from one evacuation platform to another (such as from a tracked to a wheeled ambulance).

NOTE

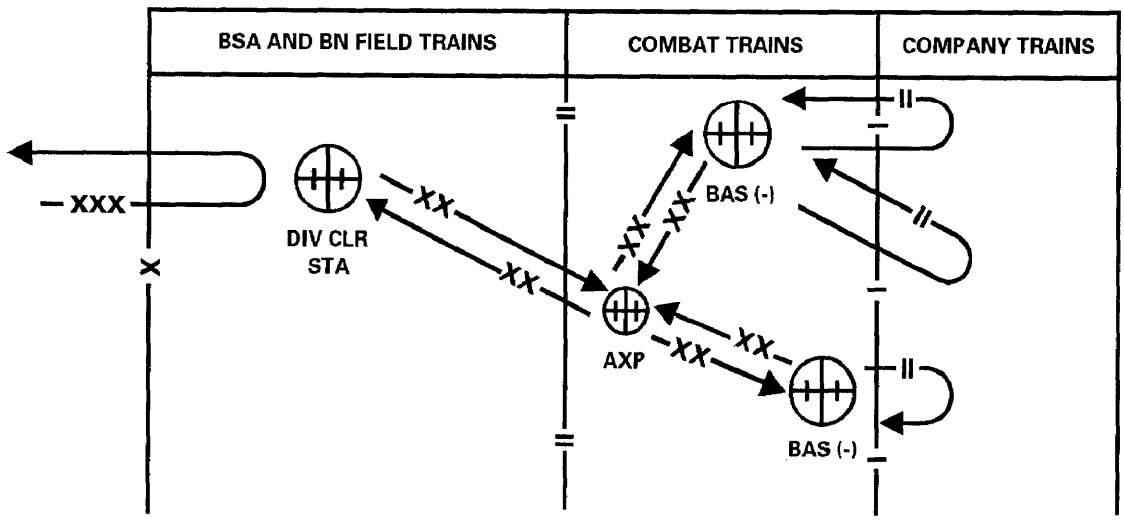
Patient collecting points and AXPs are designated by the echelon responsible for evacuating the patients. These points may be manned or unmanned. Manning of these points is the responsibility of the echelon establishing the points.

- Establishing an ambulance shuttle system (Figure 4-1) decreases ambulance turnaround time and keeps drivers familiar with the battle area in the forward areas. (An in-depth discussion of the ambulance shuttle system is contained in FM 8-10-6.)

- Evacuation overlays (Figure 4-2) should be prepared to depict the location of patient collecting points and AXPs. If certain points are activated by the crossing of phase lines, the phase lines should also be shown.

- The designation and location of patient collecting points and AXPs can be published in the service support paragraph of the brigade OPORD or depicted on overlays.

- For additional information on medical evacuation, refer to FM 8-10-6.



XXX	CORPS AMBULANCES
XX	DIV AMBULANCES
II	BN AMBULANCES
AXP	AMBULANCES EXCHANGE POINT
BAS (-)	BATTALION AID STATION OPERARTING IN SPLIT TEAM MODE

Figure 4-1. Ambulance shuttle system.

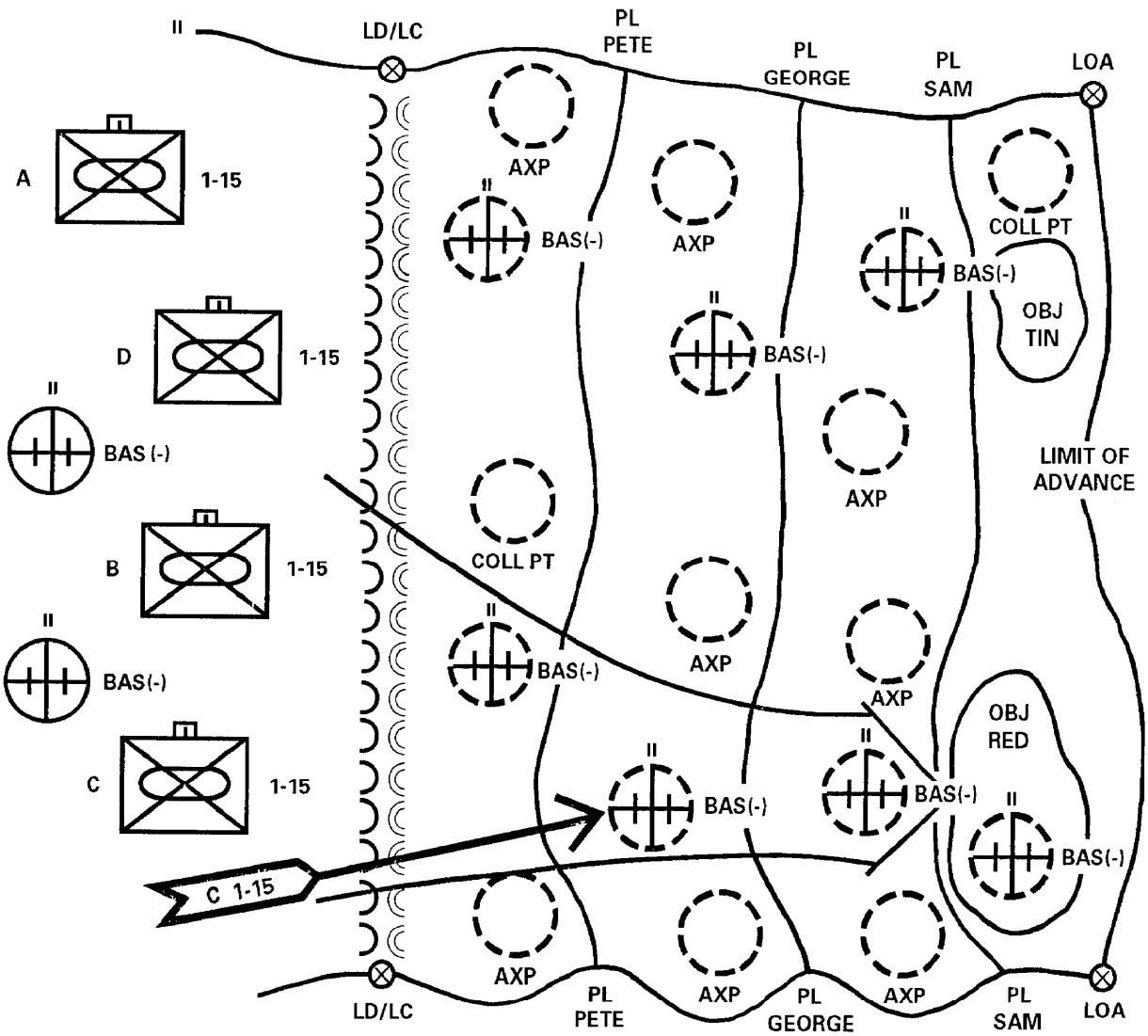


Figure 4-2. Sample of an evacuation overlay.

g. Depending on the tempo of the battle, it may not be feasible to establish an entire clearing station. In fluid situations, medical care may be provided directly from the treatment vehicle, under cover of natural terrain features (such as defilade, caves, or rock overhangs), or under a minimal number of shelters. Forward-sited medical companies may be required to rapidly evacuate patients without holding potential 72 hour RTD soldiers in the DSA. Close coordination between the BSA clearing stations and the DSA clearing station must be effected to ensure that DSA clearing station is not overwhelmed with patients and can receive reinforcement or augmentation as required.

4-8. Movement to Contact

a. Combat health support units or elements are deployed according to the OPLAN. Prior deployment of medical resources with parent and supported units permits uninterrupted and effective CHS of advancing forces.

b. If a covering force is deployed, the level of command for the covering force (corps or division) is responsible for providing CHS. For example, in a corps covering force, the corps CHS structure has the responsibility for establishing and operating the medical evacuation system to support the forward deployed corps forces. This is done to prevent the divisions following the covering forces from becoming overloaded with patients prior to the handoff and passage of lines. Due to the violent nature of covering force battles, prior planning is essential to ensure that continuous CHS is provided to the force. As the battle develops, distances to MTFs will lengthen and mass casualty situations (Appendix C) may occur. These factors may necessitate the use of nonmedical transportation assets to move casualties rearward.

c. Advance, flank, and rear guards receive CHS from attached medical evacuation teams who provide EMT and evacuate patients to patient collecting points or the nearest MTF providing area support. If the tactical situation permits, air ambulances can provide a measure of agility and flexibility.

d. The passage of lines or relief in place requires extensive liaison with the CHS elements involved, and it is essential to ensure continuous CHS. In a passage of lines, the participating surgeons arrange for the unit in place to accept the patients of the attacking unit. This enables the medical treatment elements of the attacking force to maintain mobility and to locate farther forward. Medical elements relieved in place provide the relieving element information about—

- Radio frequencies and call signs.
- Tactical standing operating procedures.
- Location of or potential sites for MTFs.
- Lines of patient drift.
- Location of patient collecting points and AXPs (overlays and strip maps).

- Main supply routes.
- Major terrain features or obstacles.
- Forward arming and refueling points (FARPs).
- Army airspace command and control (A^2C^2).

e. A movement to contact often results in a meeting engagement. Meeting engagements frequently occur by chance with smaller units and by ineffective reconnaissance for brigade-size or larger units. Meeting engagements may also occur when each opponent is aware of the other and both decide to attack without delay to obtain positional advantage, gain a decisive terrain feature, or assert moral dominance. One other situation in which a meeting engagement may occur is when one opponent deploys hastily for defense and the other opponent attempts to prevent it. As the tactical commander must seize the initiative early, develop the situation, initiate maneuver, and attack violently and resolutely, the CHS system must be prepared to rapidly clear the battlefield of casualties. The mobility of forward treatment elements cannot be compromised; therefore, treatment is limited only to procedures required to stabilize the patient for further evacuation. The CHS plan must be sufficiently flexible to support the main attack which may come from any direction. Evacuation must be swift and patients will not be held in the forward deployed division clearing stations.

4-9. Penetration

a. In the penetration, the attack passes through the enemy's principal defensive positions, ruptures them completely, and neutralizes or destroys the enemy forces. This maneuver facilitates further offensive operations.

b. Of all the offensive maneuvers, the penetration produces the heaviest WIA medical work load. Battle fatigue casualties are relatively low compared to WIA as long as forward momentum is maintained, but increase if the attack is subjected to heavy enemy fires, becomes stalled, or is repulsed. Patient collection starts slowly but increases as the attack progresses, while medical evacuation routes lengthen. The penetration maneuver is preceded by heavy preparatory fires which may result in heavy return fire by the enemy. During artillery preparation, MTFs and evacuation assets may not be able to be positioned far forward. Ground evacuation may be slow and difficult due to the damage to the roads and buildings and to heavy combat conditions. The use of air ambulances expedites the movement of patients if the tactical situation and air superiority permit their use.

c. Combat health support planners must limit the size of the established clearing stations, even though patient work loads are heavy. The treatment elements must remain mobile as the penetration may quickly transition to an exploitation and pursuit.

d. When combat units remain near the point of original penetration to hold or widen the gap in enemy defenses, the delivery of CHS becomes more difficult. Combat health support elements

must be located on each flank since evacuation cannot be accomplished across avenues of heavy combat traffic. The CHS elements should remain clear of the neck and shoulders of the penetration for their own and their patients protection. The breach in the enemy's defensive position is also a prime target of enemy conventional and NBC munitions strikes. Every effort must be made to maintain the mobility of the forward clearing station by the early evacuation of patients to the DSA clearing station or corps hospitals. The clearing station must remain mobile so that it can continue to support the combat units when they transition from the penetration into a pursuit maneuver.

4-10. Envelopment and Turning Movement

a. In an envelopment, the main attack passes around or over the enemy's principal defensive positions to seize objectives on his flanks or rear. This maneuver cuts the enemy's escape routes and subjects him to destruction.

(1) Since this maneuver involves no direct breach of the enemy's principal defensive positions, the CHS elements are not faced with as heavy a WIA patient work load in the opening phases of the operation. Battle fatigue casualties are usually low in proportion to WIA patients. As rapid movement and light combat are expected early-on in the operation, CHS tactics and techniques used in the movement to contact also apply here. Ambulances are positioned forward to rapidly evacuate patients generated by the contact without hampering the tactical commander's ability to maneuver. Echelons I and II treatment elements overtake patients on the battlefield, acquire them, and provide initial treatment and evacuation. If medical evacuation routes are open, patients are quickly evacuated to the corps.

(2) Medical treatment facility commanders maintain contact with the tactical situation through command channels, the medical operations net, and reports from returning ambulance personnel. The CHS plan maintains flexibility and is adjusted to provide adequate support to the combat forces. For example, the commander may designate the location of additional patient collecting points and AXPs, based on phase lines. He will determine the size of the clearing station to be established and its location. When patients must be carried forward, halts at assembly areas and phase lines should be made to coordinate the evacuation of these patients by either ground or air ambulance.

(3) Routine medical supply, resupply, and maintenance procedures may be modified to use air ambulances to—

- Move medical supplies forward.
- Evacuate damaged medical equipment over extended distances.
- Circumvent unsecured ground routes.

(4) Medical units supporting an envelopment must not be immobilized by EPW or nonmilitary patient work loads. If heavy patient work loads are anticipated for patients in this

category, augmentation and reinforcement of CHS elements should be coordinated prior to the operation.

(5) When the maneuver includes vertical envelopment by an air mobile force, the organic medical elements accompany the force. Anticipated delays in linkup may require commitment of additional treatment and holding facilities to the force. In airborne operations, medical evacuation is normally provided by USAF aircraft until linkup has been achieved.

b. The turning movement is a variant to the envelopment in which the attacker attempts to avoid the defense entirely, instead seeking to secure key terrain deep in the enemy's rear and along his lines of communications (LOCs). Faced with a major threat to his rear, the enemy is thus "turned" out of his defensive positions and forced to attack rearward at a disadvantage.

- General MacArthur's invasion at Inchon during the Korean War is an example of a classic turning movement. Casualties were initially light as the main defenses were avoided; however, as the invasion developed, resistance stiffened and higher casualty rates were experienced. Further, as fighting occurred in a populated area (Seoul), significant civilian casualties resulted. The lack of Korean health care providers caused many of these civilians to seek medical aid from US field medical units.

- Combat health support to the turning movement is provided basically in the same manner as to the envelopment. As the operation is conducted in the enemy's rear area, LOCs and evacuation routes may be unsecured, resulting in delays in resupply and evacuation. In the Inchon example, a hospital ship was located off the coast to accept patients evacuated from the fighting. However, due to the precarious tides, evacuation and resupply were often delayed for hours and sometimes days since the harbor could not be navigated by small vessels. It was not until Kimpo Airfield fell that timely evacuation could occur. The deployed CHS units must be able to quickly clear the battlefield of casualties, evacuate them from the forward areas, and sustain the patients in rear areas until evacuation routes are established.

4-11. Exploitation and Pursuit

a. Exploitation is the follow-up of gains to take full advantage of success in battle. It destroys the enemy's ability to regenerate an organized defense, or to successfully withdraw. Pursuit may follow exploitation; it differs from exploitation in that its primary function is to complete the destruction of the disengaging enemy force. Both WIA patients and BFCs are relatively low in this type of operation.

b. Because combat forces involved in exploitation and pursuit employ many of the same tactics as in the envelopment, CHS is provided as discussed in paragraph 4-10.

c. Control of required division-level CHS is decentralized at brigade level in these types of actions. Unsecured ground routes force reliance on evacuation by intermittent g-round ambulance convoys or air ambulances. Since exploitation and pursuit are not normally planned in detail, the

CHS plan and the TSOP must be flexible; improvisation may be required to ensure continuity of medical care.

Section III. DEFENSIVE OPERATIONS

4-12. General

Each defensive operation is unique in its own specifics; however, defensive operations can be subdivided into two main types. The mobile defense employs a combination of offensive, defensive, and delaying actions to defeat the enemy attack. The area defense is usually conducted to deny the enemy access to specific terrain for a specified time. An in-depth discussion of the different categories of defensive operations is contained in FM 100-5.

4-13. Combat Health Support of Defensive Operations

Defensive maneuvers include the spectrum of activities from an absolute static defense (strong points) designed exclusively to retain terrain, to the wholly dynamic defense that focuses only on the enemy. The defense and enemy offensive capabilities influence the character of the patient workload and its time and space distribution which, in turn, determine the allocation of CHS assets.

a. Combat health support of defensive operations presents challenges for CHS personnel, Patient work loads reflect a lower casualty rate, but forward area acquisition of patients is complicated by enemy action and the fact that the initial direction of the maneuver is to the rear. Medical personnel are permitted much less time to reach the patient, complete the necessary EMT, and evacuate him from the battle site.

b. Heaviest patient work loads may be expected during the initial enemy attack and in the counterattack. The enemy attack may disrupt ground and air communications routes and delay evacuation of patients to and from BASs.

c. While WIA rates are usually relatively low in defensive operations as compared to offensive operations, the BFC rate will be higher in relation to the number of WIA. This is particularly true in an area defense characterized by a static element, heavy bombardment of the defensive forces, or adverse weather conditions when adequate shelter is not available.

d. Since combat forces held in the reserve play a decisive role in the defense, location of MTFs must not complicate or interfere with their maneuver. Echelon II medical units may be withheld from on-going operations to support the combat reserve. These medical elements are not, in themselves, held in reserve as they provide CHS on an area basis until required to deploy.

e. The depth and dispersion of the mobile defense creates significant time and distance problems in patient evacuation support to the covering forces. Covering forces may be required to withdraw while carrying their remaining patients to the rear. The use of air ambulances will expedite evacuation of the these patients if the tactical situation permits.

f. The probability of initial enemy penetration may dictate establishing MTFs farther to the rear than in the offense.

4-14. Combat Health Support to Covering Forces in Defensive Operations

The division covering force must have the combat power to adequately screen the FLOT and force the early deployment of the enemy's main force.

a. Organic CHS elements of the covering forces establish aid stations of minimal size or operate in the split team mode (FM 8-10-4). Ambulances are deployed well forward to promptly clear patients from combat units. Medical care is limited to EMT and ATM followed by rapid evacuation whenever possible. The covering force surgeon maintains communications with attached aviation elements and uses these assets (augmented by medical personnel to provide en route medical care when feasible) to provide backhaul of casualties, rather than use ground ambulances. (Coordination for augmentation personnel is made with the supporting medical element prior to the execution of the operation.) The early evacuation of patients from BASs ensures their mobility for rearward displacement. The separate brigade or ACR medical company/troop must be prepared to receive patients generated in the covering force area. Depending upon the fluidity of the defensive situation, the medical company may be required to rapidly evacuate patients further rearward to an FSMC, an MSMC, or a corps hospital. This ensures that they retain their mobility to enable them to maneuver with other CS and CSS elements during the counterattack phase of the operation.

b. Forward deployed division ground ambulances may be OPCON to the covering force, when required. When used, the responsiveness of ground evacuation can be enhanced by establishing an ambulance shuttle system to decrease the ambulance turnaround time. (Refer to FM 8-10-6 for a discussion of the ambulance shuttle system.)

c. The wide dispersion of units and the manner in which they withdraw make patient acquisition difficult. When covering forces withdraw, patients are transported to the rear by the CHS element that has acquired them. Seriously wounded or injured patients are given priority for evacuation by air. (Usually few BFCs are generated during covering force operations, although delayed symptoms may occur once the element is withdrawn to a safe area.) Ground ambulances augmented by nonmedical transportation assets evacuate the remaining patients. No intraforce evacuation is attempted during the actual withdrawal. Patients are carried with the force to its destination or are transferred to other division CHS elements en route (as their medical conditions permit).

4-15. Main Battle Area

In the defense, units are task organized and employed according to their capabilities. As the covering force delays and identifies the strength, location, and direction of the main enemy attack, brigade commanders position battalion task forces to slow, canalize, and defeat the enemy's major units. In the conduct of the defense, it is anticipated that a strong and determined enemy can penetrate the forward defensive area. The task force may avoid being fixed by enemy forces through maneuver to successive battle positions.

a. The highly fluid nature of the battlefield makes the organization of company and battalion support areas temporary and unpredictable. The company aid post and the BAS are normally located within these areas. There may be extended periods of time when there are no safe ground or air evacuation routes, and the coordination of patient evacuation is slow and tedious at best.

b. The nature of the defending forces' mission and employment requires modification of normal Echelon II CHS. Clearing stations are located in the BSAs and DSAs; they are routinely placed toward the center of the support area. During static situations, initial commitment of division ambulances in support of BASs is minimal. Lengthy and unsecured ground routes may permit ground evacuation of patients only at periodic intervals. Air ambulances should be deployed to assume this role if the tactical situation permits. If evacuation cannot readily be accomplished, the treatment elements must be prepared to hold patients until evacuation is possible. Resupply to the forward treatment elements is made using the backhaul method on those evacuation platforms that get through. The division medical companies routinely support brigades; however, in this environment the companies may be employed in a GS role to the entire division. This technique enables the forward CHS elements to maintain a high degree of mobility and support areas of high casualty density as the battle develops.

Section IV. RETROGRADE OPERATIONS

4-16. General

A retrograde operation is a movement to the rear or away from the enemy. This type of operation may be forced by enemy action or may be executed voluntarily.

4-17. Combat Health Support for Retrograde Operations

Combat health support in retrograde movements may vary widely depending upon the operations, the enemy reaction, and the situation. Firm rules that apply equally to all types of retrograde operations are impossible to establish. Factors to consider in planning CHS for retrograde operations include—

- Mission, enemy, terrain, troops, and time available.
- Requirement for maximum security and secrecy in movement.
- Influence of refugee movement (which may impede military medical movements conducted in friendly territory).
- Integration of evacuation routes, obstacles, and barrier plans.
- Difficulty in controlling and coordinating movements of the force which may produce lucrative targets for the enemy.

a. The effect of time on treatment and evacuation (the number of patients removed from the battlefield) is dependent upon the time and means available. In stable situations and in the advance, time is important only as it affects the physical well-being of the patient. In retrograde operations, however, time is more important. As available time decreases, the battalion, brigade, and division surgeons must evaluate their capability to collect, treat, and evacuate all patients.

b. The MSR and general evacuation routes are congested during retrograde operations. Patient evacuation is difficult due to heavy traffic on the supply routes. Command, control, and communications may be disrupted by the enemy. The measures taken to counteract factors impeding evacuation are beyond the control of the CHS commander.

c. Special emphasis must be placed on the triage of patients and the type of evacuation platforms available. Seriously wounded patients should be evacuated by the fastest and most comfortable means and should receive medical care en route. Proper sorting (triage) and rapid evacuation of patients lessens the need for establishing a complete clearing station operation. Battle fatigue casualty rates are usually low relative to WIA rates during controlled retrograde operations, but increase after safety is reached.

d. When the patient work load exceeds the means available to move them, the tactical commander must make the decision whether or not patients are to be left behind. The surgeon must ensure that the tactical commander is kept informed about the need to reach a timely decision in this regard. Medical personnel and supplies must be left with patients who cannot be evacuated.

e. During retrograde operations, CHS elements are usually displaced by echelon. Patients are not normally held at the division clearing station during these operations. Locations for successive positions from forward to rear areas must be planned in advance. Since the general direction of movement is toward the location of existing CHS elements, initial locations may be placed farther to the rear than in other types of operations. For continuity of support, the next rearward location is occupied by an MTF prepared to function before the forward MTF is closed or displaced.

f. Frequency of displacement is determined by the rate of movement, the distances involved, and the tactical situation. Combat health support units must be displaced before they

hamper the maneuver forces conducting the retrograde movement. Displacement can be made by echeloning within units, or by moving complete units.

g. Operations to be undertaken at the conclusion of the retrograde movement must be considered when planning CHS. This consideration is most important in preparing for the later phases of movement.

h. When the retrograde operation involves a rearward passage of lines, detailed advance planning between surgeons of the units concerned is required. The CHS plan for the support, of both divisions during the passage of lines stipulates that the passing unit transports its own patients to the rear. Critically sick or injured patients may be transferred to the unit in place to expedite their treatment. This technique is employed to preserve the mobility of CHS in the unit which is to assume the covering force or defensive role. In retrograde operations, more than any other maneuver, mobility of the CHS element must be maintained. This permits their rapid movement without the need to abandon patients. The CHS commander can assist in maintaining this mobility by keeping his MTFs free of patient accumulation by coordinating the evacuation with supporting CHS elements and by forecasting increases in patient work loads.

4-18. Withdrawal Operations

A withdrawal operation is one in which a deployed force disengages from an enemy force. It may be forced by enemy pressure or conducted voluntarily.

a. Although the deployed force disengages from the enemy, contact is maintained by security elements while the main force moves to the rear, forms march columns, and moves to a predesignated location. ln the preferred method of withdrawal, conducted voluntarily at night or during periods of poor visibility (to include obscuration), the forces in contact with the enemy echelon to the rear. This is done by designating an element of combat forces to remain in contact with the enemy and to provide protection to the withdrawing force. Echelon I CHS elements must be prepared to support the withdrawing force as well as the force left in contact; this is accomplished by using the split team mode (FM 8-10-4). Time available to acquire, treat, and evacuate patients from the line of contact may be critical

b. The daylight withdrawal (employed as a last resort measure) normally requires movement of a withdrawing main body behind a covering force. Echelon I CHS of the covering force is provided as discussed in paragraph 4-14, except that extensive air evacuation of patients cannot be anticipated because of OPSEC restrictions and lack of air superiority and cover. Medical platoon sections of the covering force maneuver elements are normally not reinforced with medical company assets due to the heavy patient work loads in the division MTFs. Division TSOPs, OPLANs, and OPORDs prescribe the priorities for use of general purpose vehicles for patient movement. They also provide the covering force commander with basic guidance for alternate plans to move patients when the force must displace rearward without sufficient ambulance assets.

c. The medical company supporting the withdrawing force must ensure it maintains sufficient clearing station capability at its present location to support the patients while taking action to move to a new location. The newly established clearing station must be operational prior to closing and moving the element located in the forward location. In addition to the CHS provided to the force left in contact, there is a requirement to support the force moving to the rear. If the move of the main force is by infiltration, patients are carried by their parent units to the rear assembly area or CHS elements in rear areas, and CHS assets are positioned in the assembly area to receive patients.

d. Division clearing stations are established at a minimal size and well to the rear of the first line of alternate positions. If combat and environmental conditions indicate a light patient work load and the road net permits rapid ambulance movement, another clearing station may be used to provide GS to all withdrawing brigades. This support consists of sorting patients to determine who may be evacuated to corps hospitals and to provide EMT to stabilize patients for further movement. Definitive treatment is provided to only those patients with minor injuries or wounds or BF; these patients may be transported on general purpose vehicles. Clearing stations leapfrog rearward, occupying successive positions placed deeply along the withdrawal route to minimize the requirement for multiple displacements by any one MTF. This avoids unnecessary interference with combat operations while providing continuous CHS. Division ambulances are employed no farther forward than the BAS, except that an ambulance squad may be required to support the covering force in a daylight withdrawal. If the withdrawal is rapid, ambulance elements leapfrog rearward prepositioning ambulance teams to support each succeeding BAS location, rather than the customary shuttling of ambulances between BASs and division clearing stations. Preparation for the withdrawal operation includes distribution of extra medical consumable supplies and nonexpendable exchange items to each CHS element. This allotment is required to overcome effects of isolation of treatment elements and the possible intermittent operation of the medical evacuation system.

e. If withdrawal is made under enemy pressure, the provision of CHS is modified. Since the time available is critical, CHS resources cannot remain in the forward areas. The assets are usually withdrawn as a unit. Patients occurring during the withdrawal are carried to the rear areas by the parent unit, normally using nonmedical vehicles.

4-19. Delaying Operations

Delaying operations occur when forces are insufficient to attack or to defend and when the defensive plan calls for drawing the attacker into an unfavorable situation.

a. The usual delay maneuver in successive positions employs the major force on position across a broad front. Delaying brigades split their combat power, moving their less mobile forces directly to the next defensive position while the elements remaining in contact fight to the rear. Echelon I CHS is provided, as discussed, in withdrawal operations. Echelon II CHS usually requires continuous operation of two (or more) clearing stations, each in DS of the delaying forces. This technique provides adequate CHS to a wide front.

b. The tactic of delay at alternate positions involves two maneuver units in a single sector. While the first is engaged, the second occupies the next position and assumes responsibility for the

operation. The first force disengages and passes through and around the second. It then prepares to resume the delay from a position of greater depth, while the second force takes up the fight. Battalion aid stations establish facilities of minimum size and may split for rearward displacement. Ambulance support is deployed forward to provide extensive lateral coverage and expedite patient evacuation from the units in contact. One clearing station of minimal size provides adequate support for units in contact. Clearing stations leapfrog rearward as units displace. Additional Echelon II ambulances to support the forces in contact are deployed both at BASs and clearing stations to speed evacuation and to assist in moving patients during displacement.

4-20. Retirement Operations

a. A retirement is a rearward movement of a force not in contact with the enemy. It is conducted according to the force's OPLAN and without pressure by enemy forces.

b. Because the division is no longer in contact with the enemy, it can march (in multiple columns) directly to the rear. The CHS requirements for this type of operation are similar to those in a movement to contact (paragraph 4-8). The patient work load is light. Augmentation of organic medical platoon assets may be required. The treatment team capability, however, should be adequate. Treatment and evacuation support at the rear of the main body is similar to that of a withdrawal operation. The prospect of an extended retirement march requires reinforcement from corps ground ambulance assets. Division clearing stations displace sufficiently to the rear before the main force moves to preclude further displacement during the operation.

Section V. LIGHT-HEAVY/HEAVY-LIGHT OPERATIONS

4-21. General

a. Light-heavy and heavy-light force mixes can be employed effectively to enhance and maximize the tactical commander's combat power. If the force is tailored properly, the force mix will offset the inherent weaknesses of one type of unit with the inherent strengths of another type unit. Support to this type of force must be comprehensively planned and be flexible.

b. Heavy forces are comprised of the mechanized infantry, armored, and cavalry forces, Light forces include the light infantry, airborne, and air assault forces. Heavy forces are most effective where battles are fought over wide areas of relatively unrestricted terrain, while light forces are most effective in close terrain.

4-22. Combat Health Support of Light-Heavy/Heavy-Light Mixes

a. When heavy and light units are cross-attached, the CHS planner must ensure that the CHS package is tailored correctly to support the forces involved.

(1) *Command and control.* The CHS plan must clearly define C^2 relationships between units, and what unit is providing the required support.

(2) *Cordination and communications.* The medical units involved must have the ability to communicate with each other. A dedicated medical operations net (FM 11-32) will be designated to ensure the timely response to medical evacuation requests and emergency resupply requests and to coordinate the activities of the deployed CHS assets.

(3) *Modular medical support system.* The modular medical support system facilitates the cross-attachment of light-heavy units because it provides like modules in each type of unit. The number of modules available is determined by the type of parent unit.

(4) *Mobility.* Of concern to the CHS planner is the mobility of the assets employed. If light forces are providing CHS to heavy forces, they must be augmented with tracked ambulances. The light forces' organic wheeled ambulances do not possess sufficient mobility to provide adequate support to heavy forces. In addition, to ensure the availability of tracked ambulances for support, the planner must also ensure that a maintenance capability to sustain the tracked ambulances is also included in the plan.

b. For additional information on light-heavy and heavy-light operations, refer to FM 63-2-1, FM 71-100 and FM 71-100-2.