

CHAPTER 5

HOSPITALIZATION

Section I. HOSPITAL BEDS

5-1. Considerations in Determining Bed Requirements

a. The theater evacuation policy affects the number of beds required to support the TO. A patient requiring 59 days of hospitalization also requires a bed and a medical staff for 59 days. He requires this whether the entire period is spent in the theater, or divided between 29 days in the theater and 30 days in CONUS. The most intensive and demanding medical requirements are experienced during the admission, the initial patient workup, and the resuscitative phase. These requirements remain a theater responsibility, regardless of the theater evacuation policy.

b. Specific clinical capabilities as well as the number of hospital beds and locations of the hospitals must be considered. Hospitals must have the clinical capabilities necessary to provide care for the expected number and types of patients generated in the TO. The locations of hospitals should be determined based on the specific clinical capability of the type hospital unit, the relative mobility of the unit, and the necessity to establish a logical progression of hospital facilities from the forward areas of the CZ to the rear of the AOR. The location of hospitals is further affected by the site selection and the critical time/distance factors. This means that the planner also has to consider the capabilities of the evacuation system when planning hospital support.

5-2. Factors Influencing the Number of Operating Beds

a. *Staffing.* The facility is staffed for operation based on its assigned beds under normal circumstances. Medical commanders at all levels recognize that staffing is a critical factor when considering the total number of operating beds.

Limitations on operating beds can arise from personnel shortages in any service of the hospital. For example, personnel shortages in the nursing service may require closure of a ward or several wards. Likewise, personnel shortages in the pharmacy, laboratory, and radiology services may so constrict the support provided that operating beds will be reduced. Often the type bed reported must be considered in relation to staffing. The number of beds on the *intensive* care ward will require the staffing of a proportionally larger team of physicians, nurses, and medical specialists; while a *minimal* care ward consisting of a larger number of beds may require a much smaller number of supervisory personnel and medical specialists.

b. *Logistical or Administrative Shortages.* Limiting factors on operating beds may arise from shortages in logistical support or administrative services. For example, there may be a deficiency within the utilities area. Electrical power, waste disposal means, water, or fuel maybe insufficient for hospital needs. An inadequate laundry service will place a tremendous handicap on the surgical service. A shortage of personnel in the food service branch will reduce the feeding capability. The shortage of a critical item of supply can impact adversely on patient care capability. Any of these or other problems may cause curtailment of services and a reduction in operating beds.

c. *Total Number of Operating Beds.* The total number of operating beds is based upon the commander's overall evaluation, to include—

- (1) Space limitations.
- (2) Staffing (to include specific-type bed requirements).
- (3) Logistical and administrative support.

d. Augmentation. A hospital can be augmented by other types of medical units (for example, a medical company, holding) and attachment of surgical service or medical service teams. (Paragraph 5-24c discusses the medical company's holding capability to be employed by platoon to expand a hospital's minimal care facilities.) This assumes that adequate space, ancillary services, logistical, and administrative

support are available to sustain the augmentation.

e. Designated Bed Capacity. The number of patient beds specified in a TOE is the actual number of beds a *stated type of MTF* is designed to provide. Whenever the basic capacities are modified by higher headquarters to either augment or diminish the bed capacity, the modified capacity then becomes the normal/designated bed capacity.

Section II. COMPUTER APPLICATION FOR HEALTH SERVICE SUPPORT PLANNING

5-3. Determining Requirements

The right type and number of medical units to conserve the fighting strength may be determined by using computer models. These models enable the HSS planner to analyze large volumes of data used in formulating the medical force structure. This data includes the population to be supported (CZ or COMMZ), available transportation assets, and the potential levels of combat intensity.

5-4. Computer Models Used

Army medical personnel currently use two large-scale computer models: the Patient Flow Model (PFM) and the Medical Planning Module (MPM).

a. The PFM is a computer program for simulating inpatient flow through a multiechelon evacuation system. It is used primarily in the programming and budgeting process. It is also used in the total Army analysis process to produce a required force structure for every other year.

(1) The data base for this process consists of scenarios for three TO. These scenarios include—

- The size of the combat force.
- The intensity of combat.
- The admission rates for wounds, diseases, and nonbattle injuries.
- The approved evacuation policies.

(2) The results of this process give the force structure analysts the projected number of MTFs required within the CZ and the COMMZ, as well as the expected number of admissions to hospitals, returns to duty, and evacuees.

b. The MPM is a major automated data program contained in Volume III of the US JCS Joint Operation Planning and Execution System (JOPES).

(1) The MPM helps the HSS planner determine the gross HSS requirements based upon variables input by the planner, including the forces-at-risk, casualty admission rates, and the evacuation policy. The module uses these variables

to calculate time-phased requirements for HSS, which include—

- Medical treatment facilities (beds and operating rooms).
- Whole blood and fluids.
- Class VIII supplies.
- Medical evacuation requirements.

(2) The MPM is designed to accept planner inputs directly into the module, perform the calculations, and produce the results in the JOPES-specified format for the HSS appendix. The MPM has some limitations. It does not address the types of MTFs that are actually required. It cannot quantify the adequacy of existing MTFs. It does not fully address Service-unique concepts of HSS. And, finally, the module cannot react to anticipated changes in environmental conditions and predict the impact on casualties' conditions and treatment requirements.

Section III. CALCULATION OF HOSPITAL BED REQUIREMENTS

5-5. Manual Procedure

Although there are two automated systems used for determining hospital bed requirements, the use of manual (stubby pencil) calculations is certainly justified in some circumstances and every HSS planner needs to understand the methodology used. This section presents a manual methodology based on the PFM for calculating the number of hospital beds required in the CZ, in the COMMZ, and in the entire TO.

5-6. Application of Methodology

a. The term *theater beds* includes both CZ and COMMZ *hospital* beds. The number of beds required to support a particular force depends on the following:

\tilde{Z} The projected daily average number of hospital admissions.

- The evacuation policy.
- The dispersion factor.

b. The projected daily average number of hospital admissions can be determined by

applying the applicable anticipated admission rates, based on previous combat experience modified to include new factors applicable to new conditions, to the unit strengths.

c. As a situation progresses, every echelon of command gradually builds up loss experience that more accurately reflects the current conditions. Even the most complete and accurate figures relating to past wars cannot be relied on as valid for any future war. With experience as a basis, good judgment and sound knowledge of principles are used to develop new experience tables applicable to new conditions.

d. Based upon the evacuation policy, the number of patients remaining in hospitals at the end of a given period of estimate (optimally 30 days) can be determined. (See Chapter 4 for a discussion on the impact of the theater evacuation policy on HSS requirements.) This calculation is made by applying an accumulation factor to the average daily admissions to determine how many patients will accumulate during the period of estimate. (See Table 5-5 for example accumulation factors.)

e. To meet the requirements of a dynamic and fluid battlefield, the hospitalization

system must maintain a certain flexibility. This flexibility is accomplished by moving hospitals to support expected lines of patient drift and areas of patient density. The percentage of all hospital beds required to remain empty to ensure flexibility is expressed as a dispersion allowance. This allowance is converted to a dispersion factor. It is then applied to the number of patients remaining at a particular level of hospitalization to allow for the dispersion of hospital beds. Dispersion factors are applied to a hospital's basis of allocation to allow operational opening and closing. (See Table 5-1 for dispersion factors.)

f. A similar methodology may be used to calculate patient dispositions. To determine patient dispositions, disposition factors are substituted for accumulation factors. Multiplication by a dispersion factor is omitted from this procedure. (See Table 5-5 for example disposition factors.)

g. Paragraphs 5-8 through 5-10 describe in detail the methodology for determining bed requirements for a TO, and paragraph 5-11 illustrates how the theater evacuation policy affects the CONUS bed requirements.

5-7. Definition of Terms Used in Manual Methodology

a. Levels of Hospitalization. For the methodology described here, the levels of hospitalization include the CZ, the COMMZ, and the CONUS. The CZ and COMMZ levels of hospitalization may be considered, in combination, as the theater level. Likewise, all TO, combined with the CONUS, constitute the total (worldwide) hospitalization system.

b. Periods of Estimate. These are consecutive periods (intervals) of time (in days), usually measured from the beginning of a military operation. Normally, the time period length for manual calculations is 30 days. Bed requirements

are normally calculated at the end of each time period.

c. Hospital Admission. This is the initial entry of an individual as an inpatient into a hospital for a single episode of illness or injury anywhere in the TO. If the same inpatient is discharged from a hospital and later readmitted for a different illness/injury or for a recurrence of the same illness/injury, the individual is counted as another separate admission.

d. Patient Admission Rate. This is the average daily number of admissions per 1,000 average daily strength for a specified portion of the population served and specified period(s). Separate admission rates are always provided for WIA patients and DNBI patients.

e. Accumulation Factor. Assuming a constant admission of one patient per day during a specific period of estimate (and none thereafter), this factor is the expected number of patients remaining (occupying beds) at a particular level of hospitalization at the end of each consecutive period. Accumulation factors are available for each patient classification (WIA and DNBI) and for different evacuation policies and will be presented in Tables 5-5 and 5-13.

f. Final or Intermediate Dispositions. Final dispositions are RTD, died in hospital (DIH), and disability discharge (CONUS level only). An intermediate disposition is a patient evacuation to the next level of hospitalization (or in some cases, another hospital at the same level).

g. Disposition Factor. Assuming a constant admission of one patient per day during a specific period of estimate (and none thereafter), the disposition factor is the expected number of patients receiving a particular type disposition from a particular level of hospitalization during each consecutive period. Types of disposition include returned to duty, DIH, evacuated, or

disability discharge (CONUS only). Disposition factors are also provided for each patient classification, for each disposition type, and for different evacuation policies in Tables 5-5 and 5-13.

h. Dispersion Allowance. This is the percentage of all hospital beds at a level of hospitalization that are required to remain empty to allow for necessary patient dispersion and hospital flexibility. A certain flexibility is needed to initiate hospital relocation using this uncommitted bed capacity or to absorb the sudden influx of patients generated by a MASCAL situation. Additionally, separation of patients for reasons of contagious disease, sex, type treatment (medical or surgical), and psychiatric problems, among others, creates a certain number of empty beds within the various wards of a hospital.

i. Dispersion Factor. This is a factor used in computing bed requirements. It is mathematically derived from the dispersion allowance. A dispersion factor equals 100 percent / (100 percent minus the dispersion allowance).

$$1.00 / (1.00 - DA) = DF$$

where:

DA = Dispersion Allowance

DF = Dispersion Factor

When multiplied by the calculated number of patients remaining, it yields the number of beds required to provide necessary dispersion. Corresponding to a dispersion allowance of 20 percent, the dispersion factor is 1.25 (Table 5-1). In determining the dispersion allowance, the planner must be continually informed as to both the existing and possible future tactical situations. The normal dispersion allowance/factor (20 percent/1.25) is based on World War II and the Korean Conflict and may have to be increased considerably for any future war. (In Vietnam, the dispersion factor was

40 percent to support unexpected surges in the casualty flow resulting from hostile actions.) (Paragraph 5-8a(5) [example problem] presents the dispersion allowances to determine dispersion factors for the CZ, COMMZ, and CONUS.) Due to increased exposure to deep penetrations and destruction of support areas by the enemy, MTFs may have to be small and well-dispersed. These contingencies will decrease the efficient use of beds and require the application of a greater dispersion allowance/factor for planning purposes. Normally, 80 percent occupancy of available beds is the operational maximum. This, therefore, equates to a 20 percent dispersion allowance.

Table 5-1. Dispersion Allowance /Factors Conversion Table

DISPERSION ALLOWANCE (PERCENT)	DISPERSION FACTOR
5	1.05
10	1.11
15	1.18
20*	1.25
25	1.33
30	1.43
35	1.54
40	1.67
45	1.82
50	2.00

* Allowances of less than 20 percent are not normally used in the theater except for EPW beds.

5-8. Example Problem

Table 5-2 shows the problem statement for the data needed prior to and during the example application of this methodology.

a. The given force for this problem is comprised of a corps consisting of three mechanized infantry divisions in a mature European theater.

Table 5-2. Example Problem Statement

	PERIODS (30 DAYS)	
	1ST AND 2D	3D AND 4TH
AVERAGE DAILY STRENGTHS		
COMBAT ZONE		
DIVISION TROOPS	32,000	48,000
NONDIVISION COMBAT TROOPS*	24,000	36,000
NONDIVISION SUPPORT TROOPS	20,000	30,000
COMMUNICATIONS ZONE		
NONDIVISION SUPPORT TROOPS	20,000	30,000
EVACUATION POLICIES		
COMBAT ZONE	7 DAYS	15 DAYS
COMMUNICATIONS ZONE	30 DAYS	60 DAYS
DISPERSION FACTOR**		
COMBAT ZONE	1.33 (25%)	1.33 (25%)
COMMUNICATIONS ZONE	1.25 (20%)	1.25 (20%)
CONTINENTAL UNITED STATES	1.11 (10%)	1.11 (10%)
ADMISSION RATES		
COMBAT ZONE		
DIVISION TROOPS/NONDIVISION COMBAT TROOPS		
WIA	1.54	4.37
DNBI***	2.41	4.09
NONDIVISION SUPPORT TROOPS (CORPS REAR AREA)		
WIA	.28	.28
DNBI***	1.87	1.87
COMMUNICATIONS ZONE		
WIA	.05	.05
DNBI***	.95	.95
* Use division admission rates since this most closely fits the situation.		
** Factor determined from Table 5-1 based on allowance given in problem statement.		
*** DNBI rate is the sum of the NBI and DIS rates from Table 5-4b.		

(1) The operational area (terrain) consists of plains. The time of the year is midwinter. Two of the divisions are in the theater. One division will arrive in theater on D+59.

(2) The current corps operations are defensive with offensive operations commencing on D+60 and planned through D+119.

(3) The CZ evacuation policies are 7 days for the first 60 days and 15 days for D+60 through D+119.

(4) The COMMZ evacuation policies are 30 days for the first 60 days and 60 days for D+60 through D+119.

(5) The dispersion allowance will be 25 percent for the CZ, 20 percent for the COMMZ, and 10 percent for the CONUS.

(6) Time period length is 30 days.

b. Determine the theater hospital beds required to support the given force from D through D+119. Also, determine how the theater evacuation policy impacts on CONUS bed requirements.

(1) The given information is graphically depicted in Table 5-3.

(2) The admission rates can be determined from Tables 5-4a through 5-4h based on the type units, theater, terrain, and climate given in the problem statement. In this case, you will use Table 5-4b.

(3) The DNBI rates on the example problem statement (Table 5-2) are the sum of the NBI and the DIS rates in the patient admission rate tables.

c. To solve this problem, you determine that the following rates best fit the problem statement. You choose—

- Mechanized defensive operations rates for periods 1 and 2 for the corps forward area (division troops and nondivision combat troops).

Ž Mechanized offensive operations rates for periods 3 and 4 for the corps forward area (division troops and nondivision combat troops).

- Nondivisional reserve operations rates for the corps rear area (nondivision support troops).

- Nondivisional inactive operations rates for the COMMZ (nondivision support troops).

Table 5-3. Example Preliminary Bed Requirement Information
(Problem Statement Graphically Depicted)

COMBAT ZONE (POPULATION SERVED)*											
PERIODS OF ESTIMATE**	INTRATHEATER EVACUATION POLICY (DAYS)	DIVISION TROOPS & NONDIVISION COMBAT TROOPS				NONDIVISION SUPPORT TROOPS					
		AVERAGE DAILY STRENGTH (1,000s)***	WIA ADMISSION RATE (PER 1,000)	DNBI ADMISSION RATE (PER 1,000)	AVERAGE DAILY STRENGTH (1,000s)**	WIA ADMISSION RATE (PER 1,000)	DNBI ADMISSION RATE (PER 1,000)	AVERAGE DAILY STRENGTH (1,000s)**	WIA ADMISSION RATE (PER 1,000)	DNBI ADMISSION RATE (PER 1,000)	
1	7	56	1.54	2.41	20	.28	1.87	20	.28	1.87	
2	7	56	1.54	2.41	20	.28	1.87	20	.28	1.87	
3	15	84	4.37	4.09	30	.28	1.87	30	.28	1.87	
4	15	84	4.37	4.09	30	.28	1.87	30	.28	1.87	

COMMUNICATIONS ZONE (POPULATION SERVED)****						
PERIODS OF ESTIMATE**	THEATER EVACUATION POLICY (DAYS)	AVERAGE DAILY STRENGTH (1,000s)	WIA ADMISSION RATE (PER 1,000)	DNBI ADMISSION RATE (PER 1,000)	CONUS***** AVERAGE DAILY STRENGTH (1,000s)	
1	30	20	.05	.95	0	
2	30	20	.05	.95	0	
3	60	30	.05	.95	0	
4	60	30	.05	.95	0	

* Dispersion factor is 25% (1.33).

** Thirty days each.

*** Use the closest average daily strength for the population to be served during each period.

**** Dispersion factor is 20% (1.25).

***** Dispersion factor is 10% (1.11).

Table 5-4a. Patient Admission Rates—Overall in World War II (WW II), Korean Conflict, and Vietnam: Conflict (Admissions per 1,000 Strength per Day)

OFFENSIVE OPERATIONS															
INFANTRY			MECHANIZED			ARMORED			NONDIVISIONAL						
WIA	NBI	DIS TOTAL	WIA	NBI	DIS TOTAL	WIA	NBI	DIS TOTAL	WIA	NBI	DIS TOTAL				
WW II—EUROPE (See Table 5-4b)															
3.04	.54	2.07	5.65	2.17	.43	1.61	4.21	1.29	.30	1.14	2.73	.39	.34	.99	1.72
WW II—ITALY (See Table 5-4c)															
1.97	.53	3.62	6.12	2.46	.52	2.60	5.57	2.93	.49	1.57	4.99	.40	.29	1.72	2.41
WW II—MIDEAST (See Table 5-4d)															
2.29	.38	1.58	4.25	2.30	.39	1.59	4.27	2.29	.38	1.58	4.25	.40	.35	1.25	2.00
WW II—CENTRAL AND SOUTH PACIFIC (See Table 5-4e)															
1.91	.28	.89	3.08	1.77	.25	.66	2.68	1.16	.21	.42	2.24	.63	.21	.55	1.39
WW II—SOUTHWEST PACIFIC (See Table 5-4f)															
2.08	.61	5.12	7.81	1.92	.54	3.79	6.24	1.75	.45	2.44	4.64	.99	.35	3.71	5.05
KOREAN CONFLICT (See Table 5-4g)															
.82	.62	1.05	2.49	.76	.55	.78	2.09	.69	.46	.50	1.65	.54	.40	1.74	2.68
VIETNAMESE CONFLICT (See Table 5-4h)															
.42	.15	.74	1.31	.39	.14	.55	1.08	.35	.11	.35	.81	.14	.15	.77	1.06

Table 5-4b. Patient Admission Rates—Europe, World War II
(Admissions per 1,000 Strength per Day)

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL	
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL
OFFENSIVE OPERATIONS								
MOUNTAIN-COLD	9.74	.96 4.85 15.55	6.86	.83 4.25 11.94	3.97	.68 3.64 8.29	.56	.26 1.01 1.83
PLAINS-COLD	5.31	.73 4.24 10.28	4.37	.57 3.52 8.45	3.41	.39 2.79 6.59	.38	.22 1.01 1.61
PLAINS-HOT	8.82	1.15 2.32 12.29	6.32	.75 2.59 9.66	3.80	.34 2.85 6.99	.49	.55 .90 1.94
DEFENSIVE OPERATIONS								
MOUNTAIN-COLD	7.48	1.92 2.24 11.64	5.55	1.38 2.12 9.04	3.61	.82 1.98 6.41	2.46	1.42 1.38 5.26
PLAINS-COLD	1.79	.64 2.35 4.78	1.54	.45 1.96 3.94	1.28	.24 1.55 3.07	.20	.33 1.11 1.64
PLAINS-HOT	4.58	.50 1.70 6.78	3.06	.41 1.64 5.10	1.52	.31 1.56 3.39	.12	.16 .48 .76
RESERVE OPERATIONS								
MOUNTAIN-COLD	.30	.51 1.49 2.30	.28	.45 1.11 1.84	.25	.38 .71 1.34	.13	.38 .91 1.42
PLAINS-COLD	.86	.52 2.43 3.81	.79	.44 1.81 3.03	.70	.34 1.18 2.22	.28	.38 1.49 2.15
PLAINS-HOT	1.74	.34 1.82 3.90	1.46	.31 1.38 3.15	1.17	.27 .93 2.37	.57	.25 1.12 1.94
PURSUIT OPERATIONS								
MOUNTAIN-COLD	3.62	1.75 1.99 7.36	3.57	1.06 1.70 6.32	3.50	.36 1.39 5.25	1.19	1.30 1.22 3.71
PLAINS-COLD	2.71	.60 1.67 4.98	2.46	.49 1.36 4.30	2.19	.36 1.03 3.58	.89	.44 1.03 2.36
PLAINS-HOT	1.47	.44 .73 2.64	2.28	.45 .67 3.40	3.08	.44 .60 4.12	.48	.33 .45 1.26
INACTIVE OPERATIONS								
PLAINS-COLD	.16	.32 1.15 1.63	.09	.27 .88 1.23	.01	.20 .59 .80	.05	.24 .71 1.00
PLAINS-HOT	.42	.25 .50 1.17	.54	.20 .45 1.19	.65	.14 .38 1.17	.14	.19 .31 .64
AIRBORNE OPERATIONS								
PLAINS-COLD	10.47	2.33 .66 13.46	0	0 0 0	0	0 0 0	3.44	1.72 .41 5.57
PLAINS-HOT	9.20	.25 1.02 10.47	0	0 0 0	0	0 0 0	3.03	.19 .63 3.85
AMPHIBIOUS OPERATIONS								
PLAINS-HOT	10.45	.28 .53 11.26	9.63	.25 .40 10.28	8.80	.21 .25 9.26	3.44	.21 .33 3.95
RIVER-CROSSING OPERATIONS								
MOUNTAIN-COLD	4.84	.83 3.17 8.84	6.58	.76 3.67 11.01	8.31	.68 4.15 13.14	1.59	.61 1.95 4.15
PLAINS-COLD	5.57	.52 3.02 9.11	5.14	.46 2.23 7.83	4.69	.38 1.44 6.51	1.83	.38 1.85 4.06
PLAINS-HOT	5.46	.51 2.32 8.29	3.80	.35 1.35 5.49	2.12	.18 .36 2.66	1.80	.38 1.42 3.60
MOUNTAIN-HOT	10.22	.64 6.24 17.10	9.42	.56 4.61 14.59	8.61	.47 2.97 12.05	3.36	.47 3.83 2.66

Table 5-4c. Patient Admission Rates Italy, World War II
(Admissions per 1,000 Strength per Day)

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL	
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL
OFFENSIVE OPERATIONS								
MOUNTAIN-COLD	4.68	.82 4.69 10.19	4.32	.72 3.47 8.50	3.94	.61 2.23 6.78	.07	.14 1.54 1.75
PLAINS-COLD	15.60	.71 4.79 21.10	14.38	.62 3.54 18.54	13.14	.52 2.28 15.94	5.13	.53 2.94 8.60
PLAINS-HOT	12.51	.71 2.18 15.40	11.53	.62 1.62 13.76	10.53	.52 1.04 12.09	.58	.32 1.39 2.29
MOUNTAIN-HOT	4.26	.62 3.61 8.49	4.44	.61 2.83 7.87	4.60	.58 2.04 7.22	.69	.41 1.45 2.55
DEFENSIVE OPERATIONS								
MOUNTAIN-COLD	.26	.25 1.49 2.00	.25	.22 1.11 1.57	.22	.18 .71 1.11	.19	.25 1.74 2.15
PLAINS-COLD	2.18	.55 4.57 7.30	2.02	.49 3.38 5.88	1.84	.41 2.18 4.43	.72	.41 2.81 3.94
PLAINS-HOT	.75	.58 2.64 3.97	.70	.51 1.96 3.16	.63	.43 1.26 2.32	.25	.43 1.62 2.30
RESERVE OPERATIONS								
MOUNTAIN-HOT	.45	.49 1.48 2.42	.42	.43 1.10 1.95	.38	.36 .70 1.44	.15	.36 .91 1.42
PLAINS-COLD	.19	.49 3.09 3.77	.18	.43 2.29 2.90	.16	.36 1.47 1.99	.06	.36 1.90 2.32
PLAINS-HOT	.14	.61 3.93 4.68	.08	.56 2.83 3.47	.01	.50 1.71 2.22	.05	.45 2.41 2.91
PURSUIT OPERATIONS								
MOUNTAIN-HOT	3.61	.62 2.51 6.74	3.33	.55 1.86 5.73	3.04	.46 1.19 4.69	1.19	.46 1.54 3.19
PLAINS-COLD	.63	.66 1.03 2.32	.58	.58 .77 1.93	.53	.49 .49 1.51	.21	.49 .63 1.33
PLAINS-HOT	1.28	.54 1.46 3.28	1.46	.48 1.14 3.08	1.62	.41 .81 2.84	.42	.40 .90 1.72
INACTIVE OPERATIONS								
PLAINS-COLD	.52	.43 4.29 5.24	.81	.38 3.17 4.36	1.08	.32 2.04 3.44	.17	.32 2.63 3.12
PLAINS-HOT	1.15	.34 2.19 3.68	1.07	.30 1.62 2.99	.97	.25 1.04 2.26	.38	.25 1.34 1.97
AMPHIBIOUS OPERATIONS								
PLAINS-COLD	6.06	.27 1.30 7.63	5.59	.24 .97 6.79	5.10	.20 .62 5.92	1.99	.20 .80 2.99
PLAINS-HOT	16.05	1.36 6.30 23.71	14.79	1.19 4.66 20.63	13.51	1.00 3.00 17.51	5.38	1.01 3.87 10.26
RIVER-CROSSING OPERATIONS								
MOUNTAIN-COLD	1.78	.32 4.32 6.42	1.65	.29 3.20 5.13	1.50	.24 2.06 3.80	.59	.24 2.65 3.48
PLAINS-COLD	2.68	.71 4.39 7.78	2.48	.62 3.25 6.34	2.26	.52 2.09 4.87	.88	.53 2.70 4.11
PLAINS-HOT	5.64	.57 2.16 8.37	5.20	.50 1.60 7.30	4.75	.42 1.04 6.20	1.86	.42 1.33 3.61
MOUNTAIN-HOT	1.08	.33 2.88 4.29	1.00	.29 2.13 3.42	.91	.24 1.37 2.52	.36	.24 1.77 2.37

*Table 5-4d. Patient Admission Rates—Mideast Wars (Between Opposing Non-US Forces)
(Admissions per 1,000 Strength per Day)*

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL										
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL									
ALL OPERATIONS	2.29	.38	1.58	4.25	2.30	.39	1.59	4.27	2.29	.38	1.58	4.25	.40	.35	1.25	2.00	
DESERT-HOT																	

*Table 5-4e. Patient Admission Rates—Central and South Pacific, World War II
(Admissions per 1,000 Strength per Day)*

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL										
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL									
OFFENSIVE OPERATIONS	9.12	.46	2.20	11.78					3.00	.34	1.35	4.69					
MOUNTAIN-HOT																	
RESERVE OPERATIONS	.45	.26	3.93	4.64					.15	.19	2.41	2.75					
PLAINS-COLD																	
INACTIVE OPERATIONS	0	.27	.72	.99					0	.20	.44	.64					
MOUNTAIN-HOT									0	.05	.20	.25					
PLAINS-COLD																	
AMPHIBIOUS OPERATIONS	4.48	.43	.76	5.67					1.47	.32	.47	2.26					
MOUNTAIN-JUNGLE									1.86	.47	.39	2.72					
PLAINS-JUNGLE									4.20	.36	.44	5.00					
PLAINS-HOT																	

*Table 5-4f. Patient Admission Rates—Southwest Pacific, World War II
(Admissions per 1,000 Strength per Day)*

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL	
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL
DEFENSIVE OPERATIONS								
MOUNTAIN-COLD	4.13	.42 5.21 9.76					1.36	.31 3.20 4.87
MOUNTAIN-HOT	2.68	.49 4.64 7.81					.78	.38 4.00 5.18
PLAINS-HOT	3.65	.40 4.23 8.28					1.20	.30 2.60 4.10
MOUNTAIN-JUNGLE	1.61	.56 3.70 5.87					.53	.41 2.27 3.21
PLAINS-JUNGLE	4.16	2.05 2.29 8.50					1.37	1.52 1.41 4.30
RESERVE OPERATIONS								
PLAINS-COLD	0	.55 5.46 6.01					0	.41 3.35 3.76
AIRBORNE OPERATIONS								
MOUNTAIN-HOT	17.75	.61 2.50 20.86					5.84	.35 1.54 7.73
INACTIVE OPERATIONS								
PLAINS-COLD	0	.67 5.47 6.14					0	.50 3.36 3.86

Table 5-4g. Patient Admission Rates—Korean Conflict
(Admissions per 1,000 Strengths per Day)

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL									
	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL	WIA	NBI DIS TOTAL								
OFFENSIVE OPERATIONS																
MOUNTAIN-COLD	3.54	1.40	1.67	6.61	3.27	1.22	1.24	5.72	2.98	1.08	.79	4.80	.19	.34	1.48	2.01
PLAINS-COLD	1.46	1.37	2.12	4.95	1.35	1.20	1.57	4.12	1.23	1.01	1.01	3.25	.48	1.01	1.30	2.79
MOUNTAIN-HOT	2.42	.75	1.58	4.75	2.24	.66	1.17	4.06	2.04	.55	.75	3.34	.07	.29	1.02	1.38
DEFENSIVE OPERATIONS																
MOUNTAIN-COLD	4.75	3.51	1.35	9.61	4.38	3.06	1.00	8.44	4.00	2.59	.64	7.23	.43	.41	1.62	2.16
PLAINS-COLD	.70	3.31	1.41	5.42	.65	2.88	1.05	4.48	.59	2.44	.67	3.70	.23	2.45	.87	3.55
PLAINS-HOT	8.03	.70	2.51	11.24	7.40	.62	1.86	9.88	6.76	.52	1.19	8.47	2.64	.52	1.54	4.70
MOUNTAIN-HOT	2.99	.86	2.28	6.13	2.76	.75	1.69	5.20	2.52	.63	1.09	4.24	1.47	.55	2.54	4.56
RESERVE OPERATIONS																
MOUNTAIN-COLD	.05	.56	1.18	1.79	.05	.49	.88	1.42	.04	.41	.56	1.01	.02	.41	.72	1.15
PLAINS-COLD	.29	1.11	1.40	2.80	.27	.97	1.04	2.28	.24	.82	.67	1.73	.10	.82	.86	1.78
PLAINS-HOT	.04	.38	.94	1.36	.04	.34	.70	1.08	.03	.28	.45	.76	.01	.28	.58	.87
MOUNTAIN-HOT	.07	.45	.92	1.44	.07	.40	.69	1.15	.06	.33	.44	.83	.02	.33	.56	.91
PURSUIT OPERATIONS																
MOUNTAIN-COLD	.64	1.85	1.33	3.82	.60	1.62	.99	3.20	.54	1.37	.63	2.54	.21	1.37	.82	2.40
PLAINS-COLD	.39	1.23	.89	2.51	.27	.84	.66	1.77	.13	.44	.42	.99	0	0	0	0
MOUNTAIN-HOT	1.40	.56	1.27	3.23	1.30	.49	.94	2.73	1.18	.41	.60	2.19	.60	.44	1.28	2.32
INACTIVE OPERATIONS																
MOUNTAIN-COLD	.15	.60	.89	1.64	.15	.53	.66	1.33	.13	.44	.42	.99	.01	.25	1.27	1.53
PLAINS-COLD	.07	.23	.46	.76	.07	.21	.35	.62	.06	.17	.22	.45	.02	.17	.28	.47
PLAINS-HOT	.14	.18	.32	.64	.14	.16	.24	.54	.12	.13	.15	.40	.05	.13	.20	.38
MOUNTAIN-HOT	.14	.24	.54	.92	.14	.22	.41	.76	.12	.18	.26	.56	.05	.18	.33	.56
AMPHIBIOUS OPERATIONS																
PLAINS-HOT	1.83	.18	.26	2.27	1.69	.16	.20	2.05	1.54	.13	.12	1.79	.60	.13	.16	.89
RIVER-CROSSING OPERATIONS																
MOUNTAIN-COLD	6.94	1.37	2.62	10.93	6.40	1.20	1.94	9.53	5.84	1.01	1.25	8.10	2.28	1.01	1.61	4.90
PLAINS-COLD	7.20	1.19	1.22	9.61	6.64	1.04	.91	8.58	6.06	.88	.58	7.52	2.37	.88	.75	4.00
PLAINS-HOT	3.32	.55	1.46	5.33	3.07	.49	1.08	4.63	2.80	.41	.69	3.90	1.09	.41	.90	2.40

Table 5-4h. Patient Admission Rates—Vietnamese Conflict
(Admissions per 1,000 Strength per Day)

TERRAIN AND CLIMATE	INFANTRY		MECHANIZED		ARMORED		NONDIVISIONAL	
	WIA	DIS	WIA	DIS	WIA	DIS	WIA	DIS
ALL OPERATIONS	.42	.15	.39	.14	.35	.11	.14	.15
JUNGLE-MOUNTAIN-HOT	1.31	1.08	.81	.77	1.06			

5-9. Methodology for the Combat Zone

a. Using Tables 5-2 and 5-5 (or appropriate actual figures), select the type CZ population to be served according to the expected admission experience of *division and nondivision combat troops* and *nondivision support troops*, the number of 30-day periods, and the evacuation policy for each period. Process for determining hospital beds required is described in paragraph 5-9b and c, below. (Table 5-6 shows the completed example calculations.)

b. Perform steps in paragraphs 5-9b(1) through (4) for WIA patients and then again for DNBI patients for each period of estimate.

(1) Use the example problem as shown in Table 5-2 (or appropriate actual figures) to obtain the total average daily CZ admissions (WIA or DNBI) for the current period of estimate. Multiply the average daily strength (for each type population served) by the corresponding admission rate (per 1,000 troops), then sum the results obtained for each population served separately (division and nondivision combat troops and nondivision support troops). (Table 5-7 illustrates the process used to obtain *time period 1 CZ average admissions*.) Check numbers obtained for correctness with numbers shown in the example solution in Table 5-6. Note that in Table 5-6, the totals reflected are broken down by patient classifications.

(2) Note that the period of estimate numbered "1" (7 days) in Table 5-6 corresponds to the current period in Table 5-5 (7 days). Whatever period of estimate you are computing becomes the *current period* and the *subsequent period* is "2" from Table 5-5. Locate the appropriate accumulation factor column (WIA or DNBI) in Table 5-5 by noting the evacuation policy for that current period of estimate. Various combination

sets of evacuation policies are identified. For subsequent consecutive periods, locate the appropriate evacuation policy combination which applies to your particular problem. (Table 5-8 illustrates the process used to obtain accumulation factors for period 1.)

(3) Using the same solution shown in Table 5-6 (or appropriate actual figures), obtain the number of current period admissions (WIA or DNBI) that are still remaining in the CZ hospitals at the end of the current period by multiplying the first accumulation factor by the total average-daily admissions in the current period. (Table 5-9

illustrates the process used to obtain the number of CZ patients remaining at the end of period 1.)

(4) Obtain the number of current period admissions (WIA or DNBI) that are still remaining in CZ hospitals at the end of the *next* period by multiplying the *second* accumulation factor by the total average daily admissions in the current period. (Table 5-10 illustrates the process used to obtain the number of CZ patients remaining at the end of period 2.) Continue this process for patients remaining at the end of other successive periods until all nonzero accumulation factors have been used.

Table 5-5. Example Accumulation and Disposition Factors—Combat Zone*

CURRENT AND SUBSEQUENT PERIODS**	INTRA-THEATER EVACUATION POLICY (DAYS)	BASED ON THE ASSUMPTION OF ONE ADMISSION PER DAY OF THE SPECIFIED CLASSIFICATION OF PATIENTS DURING THE FIRST PERIOD OF ESTIMATE (30 DAYS AND NONE THEREAFTER).				WOUNDED IN ACTION				DISEASE/NONBATTLE INJURIES				
		ACCUMULATION***		RETURN TO DUTY*	DIED IN HOSPITALS**	EVACUATED***		RETURN TO DUTY*	DIED IN HOSPITALS**	ACCUMULATION		RETURN TO DUTY*	DIED IN HOSPITALS**	EVACUATED
1	5	2.0265	9736	.3243	26.6756	1.7676	5.7175	.0370	22.4779	1.7676	5.7175	.0370	22.4779	
2	5	0	.1034	.0177	1.9054	0	.5825	.0020	1.1831	0	.5825	.0020	1.1831	
1	7	3.1063	1.6371	.3660	24.9006	2.7768	8.6334	.0419	18.5479	2.7768	8.6334	.0419	18.5479	
2	7	0	.2524	.0250	2.8284	0	1.2336	.0031	1.5401	0	1.2336	.0031	1.5401	
1	10	4.7076	2.4207	.3850	22.4867	4.2450	11.9923	.0463	13.7164	4.2450	11.9923	.0463	13.7164	
2	10	0	.5373	.0350	4.1353	0	2.4287	.0047	1.8116	0	2.4287	.0047	1.8116	
1	15	6.6306	3.3581	.4053	19.6060	6.1563	14.5346	.0481	9.2610	6.1563	14.5346	.0481	9.2610	
2	15	0	1.1599	.0477	5.4230	0	4.0714	.0059	2.0790	0	4.0714	.0059	2.0790	
1	5	2.0265	9736	.3243	26.6756	1.7676	5.7175	.0370	22.4779	1.7676	5.7175	.0370	22.4779	
2	10	0	.2288	.0229	1.7748	0	.9886	.0026	.7764	0	.9886	.0026	.7764	
1	7	3.1063	1.6371	.3660	24.9006	2.7768	8.6334	.0419	18.5479	2.7768	8.6334	.0419	18.5479	
2	15	0	.5210	.0323	2.5530	0	1.9036	.0038	.8694	0	1.9036	.0038	.8694	
1	10	4.7076	2.4207	.3850	22.4867	4.2450	11.9923	.0463	13.7164	4.2450	11.9923	.0463	13.7164	
2	15	0	.7796	.0401	3.8879	0	2.9169	.0050	1.3230	0	2.9169	.0050	1.3230	
1	10	4.7076	2.4207	.3850	22.4867	4.2450	11.9923	.0463	13.7164	4.2450	11.9923	.0463	13.7164	
2	5	0	.1034	.0177	4.5865	0	.5825	.0020	3.6605	0	.5825	.0020	3.6605	
1	15	6.6306	3.3581	.4053	19.6060	6.1563	14.5346	.0481	9.2610	6.1563	14.5346	.0481	9.2610	
2	7	0	.2529	.0250	6.3527	0	1.2336	.0031	4.9196	0	1.2336	.0031	4.9196	
1	15	6.6306	3.3581	.4053	19.6060	6.1563	14.5346	.0481	9.2610	6.1563	14.5346	.0481	9.2610	
2	10	0	.5393	.0350	6.0583	0	2.4287	.0047	3.7229	0	2.4287	.0047	3.7229	

* Derived from the complete hospitalization and evacuation experience of all US Army WIA and DNBI patients admitted to hospitals in the Korean Conflict and all US Army DNBI cases admitted to hospitals in any overseas area during the same period.
 ** Thirty days each.
 *** Accumulation of patients at end of period.
 # Return to duty dispositions during the period.
 ## Died in hospital dispositions during the period.
 ### Patient evacuation dispositions out of the CZ during the period.

Table 5-6. Example Calculations of Combat Zone Hospital Bed Requirements

PATIENT CLASS	PERIOD OF ESTIMATE	CZ AVERAGE DAILY ADMISSIONS		TOTAL X	CZ ACCUMULATION FACTORS FOR CONSECUTIVE PERIODS				CZ PATIENTS REMAINING AT END OF CONSECUTIVE PERIODS			
		EVAC	NONDIV		1	2	3	4	1	2	3	4
WIA	1	7	5.60	91.84	3.1063	0	0	0	285.28	0	0	0
	2	7	5.60	91.84	3.1063	0	0	0	285.28	0	0	0
	3	15	8.40	375.48	6.6306	0	0	0	2,489.66	0	0	0
	4	15	8.40	375.48	6.6306	0	0	0	2,489.66	0	0	0
DNBI	1	7	37.40	172.36	2.7768	0	0	0	478.61	0	0	0
	2	7	37.40	172.36	2.7768	0	0	0	478.61	0	0	0
	3	15	56.10	399.66	6.1563	0	0	0	2,460.43	0	0	0
	4	15	56.10	399.66	6.1563	0	0	0	2,460.43	0	0	0
TOTAL PATIENTS REMAINING IN COMBAT ZONE HOSPITALS (FROM POPULATION SERVED)					763.89	763.89	763.89	763.89	4,950.09	4,950.09	4,950.09	4,950.09
COMBAT ZONE DISPERSION FACTOR (1.33)(DISPERSION ALLOWANCE = 25%)					X 1.33	X 1.33	X 1.33	X 1.33	X 1.33	X 1.33	X 1.33	X 1.33
COMBAT ZONE BED REQUIREMENTS AT END OF EACH 30-DAY PERIOD					1,016	1,016	1,016	1,016	6,584	6,584	6,584	6,584

NOTE: The above example numbers must be substituted with actual numbers when calculating actual operational bed requirements. Total bed requirements rounded to next higher whole number.

Table 5-7. Example for Obtaining Combat Zone Average Daily Admissions

DAILY PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	EVACUATION POLICY (DAYS)	AVERAGE DAILY STRENGTH (1000s)	X	ADMISSION RATE	=	TOTAL
WIA							
DIVISION AND NONDIVISION COMBAT TROOPS	1	7	56	X	1.54	=	86.24
NONDIVISION SUPPORT TROOPS	1	7	20	X	.28	=	5.60
					TOTAL		91.84
DNBI							
DIVISION AND NONDIVISION COMBAT TROOPS	1	7	56	X	2.41	=	134.96
NONDIVISION SUPPORT TROOPS	1	7	20	X	1.87	=	37.40
					TOTAL		172.36

Table 5-8. Example for Finding Accumulation Factors

PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	EVACUATION POLICY (DAYS)	ACCUMULATION FACTORS
WIA	1	7	3.1063
	2	7	0
DNBI	1	7	2.7768
	2	7	0

Table 5-9. Example for Obtaining Total Combat Zone Patients Remaining (Period 1)

PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	FIRST PERIOD ACCUMULATION FACTOR	X	TOTAL AVERAGE DAILY ADMISSION	=	CZ PATIENTS REMAINING AT END OF PERIOD 1
WIA	1	3.1063	X	91.84	=	285.28
DNBI	1	2.7768	X	172.36	=	478.61

Table 5-10. Example for Obtaining Total Combat Zone Patients Remaining (Period 2)

PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	SECOND PERIOD ACCUMULATION FACTOR	X	TOTAL AVERAGE DAILY ADMISSION	=	CZ PATIENTS REMAINING AT END OF PERIOD 2
WIA	1	0*	X	91.84	=	0
DNBI	1	0*	X	172.36	=	0

* This example is to show process only. Since this is a zero, computation is not necessary.

(5) Using the same solution shown in Table 5-6 (or appropriate actual figures), add admissions remaining in CZ hospitals at the end of successive periods of estimate with any *previous* admissions still remaining in these hospitals at the end of the same successive periods. Disease and nonbattle injury results, as they are obtained, should be added at this point with WIA results to obtain total patients remaining in CZ hospitals. (Table 5-11 illustrates the process used to obtain

the total patients remaining in CZ hospitals for period 1.)

c. Obtain the CZ bed requirements using total WIA and DNBI requirements at the end of each 30-day period of estimate as follows: Multiply the total patients remaining figures derived earlier by the CZ dispersion factor as shown in Table 5-2. (Table 5-12 illustrates the process used to obtain total CZ bed requirements for period 1.)

Table 5-11. Example for Obtaining Total Patients Remaining in Combat Zone Hospitals (Period 1)

PATIENT CLASSIFICATION	PERIOD 1
WIA	285.28
DNBI	478.61
TOTAL	763.89

Table 5-12. Example for Obtaining Total Combat Zone Bed Requirements (Period 1)

	PERIOD 1
TOTAL PATIENTS REMAINING IN CZ HOSPITALS	763.89
CZ DISPERSION FACTOR	X 1.33
CZ BED REQUIREMENTS AT END OF FIRST 30-DAY PERIOD	1,016

5-10. Methodology for the Communications Zone

a. Using Tables 5-2 and 5-13 (or appropriate actual figures), select the COMMZ population to be served according to expected admission experience, the number of 30-day periods, and the evacuation policies for each period. Note that this has already been done for the CZ; therefore, only the COMMZ population is considered in this calculation. Process for determining hospital beds required in the COMMZ is described in paragraph 5-10b, c, and d, below. (Table 5-14 shows the completed example calculations.)

b. Perform steps in paragraphs 5-10b(1) through (5) for WIA patients and then again for DNBI patients (for the population to be served in the COMMZ).

(1) Use the example problem as shown in Table 5-2 (or appropriate actual figures) to obtain the total average daily theater admissions (WIA or DNBI) for the current period of estimate. Multiply the average daily strength (for each

population served) by the corresponding admission rate (per 1,000 troops). Note that a total for the CZ has already been obtained. (Table 5-15 illustrates the process used to obtain time period 1 theater average admissions.) Check numbers obtained for correctness with those numbers shown in the example solution in Table 5-14. Note that in Tables 5-6 and 5-14 the totals reflected are broken down by patient classifications (WIA/DNBI and not by the type of troop population.

(2) Note that the period of estimate numbered "1" (30 days) in Table 5-14 corresponds to the current period in Table 5-13. Whatever period of estimate you are computing becomes the current period and subsequent periods become 2 and 3, respectively. Locate the appropriate accumulation factor column (WIA or DNBI) in Table 5-13 by noting the theater evacuation policy for that current period of estimate. *Various combination sets of evacuation policies are identified.* For subsequent consecutive periods, locate the appropriate evacuation policy combination which applies to your particular problem. (Table 5-16 illustrates the process used to find theater accumulation factors for period 1.)

(3) Using the example solution in Table 5-14 (or appropriate actual figures), obtain the number of current period admissions (WIA or DNBI) that are still remaining in theater hospitals at the end of the current period by multiplying the first accumulation factor by the theater's total average daily admissions in the current period. (Table 5-17 illustrates the process used to obtain the number of theater patients admitted during and remaining at the end of period 2.)

(4) Obtain the number of current period admissions (WIA or DNBI) that are still remaining in theater hospitals at the end of the next period by multiplying the second accumulation factor by the theater's total average daily admissions in the current period. Carefully select the proper combination of evacuation policies reflecting current and consecutive period accumulation factors. Continue this process for patients remaining at the end of other successive periods until all nonzero accumulation factors have been used. In Table 5-14, the 30-day period (period 2), followed by a 60-day period (period 3), has a subsequent period additional accumulation factor of 2.6179 (WIA) and .9543 (DNBI) from the sixth combination in Table 5-13. (Table 5-18 illustrates the process used to obtain the number of theater patients remaining at the end of period 3.)

(5) Using the example solution shown in Table 5-14 (or appropriate actual figures), add admissions that are still remaining in theater hospitals at the end of successive periods of estimate

with any previous admissions still remaining in theater hospitals at the end of the same successive periods. Disease and nonbattle injury results, as they are obtained, should be added at this point with WIA results to obtain total patients remaining in theater hospitals. (Table 5-19 illustrates the process used to obtain the total patients remaining in theater hospitals for period 1.)

c. Using the example solution shown in Table 5-14 (or appropriate actual figures), obtain total patients remaining in COMMZ hospitals at the end of each successive period of estimate as follows: For each period, subtract patients remaining in CZ hospitals from all patients remaining in theater hospitals (that is, subtract the final results from the corresponding results of (5), above). If CZ hospital bed requirements are not calculated first, the CZ accumulation factors can be obtained from theater factors in Table 5-13. This can be done by subtracting equivalent CZ factors in Table 5-6 before calculating beds as in the sample in Table 5-14. (Table 5-20 illustrates the process used to obtain the total patients remaining in COMMZ hospitals for period 1.)

d. Obtain the COMMZ bed requirements at the end of each consecutive period of estimate as follows: Multiply the results of paragraph 5-10c, above, by the COMMZ dispersion factor (as shown in Table 5-2). (Table 5-21 illustrates the process used to obtain total COMMZ bed requirements for period 1.)

Table 5-13. Example Accumulation and Disposition Factors—Theater*

CURRENT AND SUBSEQUENT PERIODS**	EVACUATION POLICY (DAYS)	BASED ON THE ASSUMPTION OF ONE ADMISSION PER DAY OF THE SPECIFIED CLASSIFICATION OF PATIENTS DURING THE FIRST PERIOD OF ESTIMATE (30 DAYS AND NONE THEREAFTER).							
		WOUNDED IN ACTION		DISEASE/NONBATTLE INJURIES		DIED IN HOSPITALS			
		ACCUMULATION***	RETURN TO DUTY	ACCUMULATION	RETURN TO DUTY	ACCUMULATION	RETURN TO DUTY		
1	15	9.5249	3.3581	.4053	16.7117	7.4828	14.5346	0.481	7.9345
2	15	0	1.1599	.0477	8.3173	0	4.0714	.0059	3.4055
1	30	15.0607	4.6585	.4146	9.8662	10.8494	16.1905	.0493	2.9108
2	30	0	4.5875	.0684	10.4048	0	7.6175	.0077	3.2242
1	60	20.5087	4.6586	.4146	4.4182	12.9982	16.1905	.0493	.7620
2	60	4.4283	8.5607	.0763	7.4434	1.6680	9.5856	.0108	1.7338
3	60	0	3.0868	.0871	1.3354	0	1.2479	.0029	.4172
1	15	9.5249	3.3581	.4053	16.7117	7.4828	14.5346	0.481	7.9345
2	30	0	2.7310	.0377	6.7362	0	5.6336	.0088	1.8424
1	15	9.5249	3.3581	.4053	16.7117	7.4828	14.5346	0.481	7.9345
2	60	1.8227	3.9242	.0597	3.7184	.6372	6.1329	.0076	.7051
3	60	0	1.1526	.0030	.6671	0	.4665	.0010	.1697
1	30	15.0607	4.6585	.4146	9.8662	10.8494	16.1905	.0493	2.9108
2	60	2.6179	6.6269	.0725	5.7434	.9543	8.6518	.0093	1.2340
3	60	0	1.5839	.0036	1.0304	0	.6558	.0015	.2969
1	30	15.0607	4.6585	.4146	9.8662	10.8494	16.1905	.0493	2.9108
2	15	0	1.1599	.0477	13.8531	0	4.0714	.0059	6.7721
1	60	20.5087	4.6585	.4146	4.4182	12.9982	16.1905	.0493	.7620
2	15	0	1.1599	.0477	19.3011	0	4.0714	.0059	8.9209
1	60	20.5087	4.6585	.4146	4.4182	12.9982	16.1905	.0493	.7620
2	30	0	4.5875	.0684	15.9528	0	7.6175	.0077	5.3730

* Derived from the complete hospitalization and evacuation experience of all US Army WIA and DNBI patients admitted to hospitals in the Korean Conflict and all US Army DNBI cases admitted to hospitals in any overseas area during the same period.

** Thirty days each.

*** Accumulation of patients at end of period.

Return to duty dispositions during the period.

Died in hospital dispositions during the period.

Patient evacuation dispositions out of the CZ during the period.

Table 5-14. Example Calculations of Communications Zone Hospital Bed Requirements

PATIENT CLASS	PERIOD OF ESTIMATE	THEATER AVERAGE DAILY ADMISSIONS				TOTAL	THEATER ACCUMULATION FACTORS FOR CONSECUTIVE PERIODS				THEATER PATIENTS REMAINING AT END OF CONSECUTIVE PERIODS			
		EVAC	CZ	COMMZ	+		TROOPS	+	TROOPS	=	TOTAL	1	2	3
WIA	1	30	91.84	1.00		92.84	15.0607	0	0	0	1,398.24	0	0	0
	2	30	91.84	1.00		92.84	15.0607	2.6179	0	0	1,398.24	243.05	0	0
	3	60	375.48	1.50		376.98	20.5087	4.4283	0	0	7,731.37	1,669.38	7,731.37	0
	4	60	375.48	1.50		376.98	20.5087	20.5087	0	0	7,731.37	7,731.37	0	0
DNBI	1	30	172.36	19.00		191.36	10.8494	0	0	0	2,076.14	0	0	0
	2	30	172.36	19.00		191.36	10.8494	0.9543	0	0	2,076.14	182.61	0	0
	3	60	399.66	28.50		428.16	12.9982	1.6680	0	0	5,565.31	714.17	5,565.31	0
	4	60	399.66	28.50		428.16	12.9982	12.9982	0	0	5,565.31	5,565.31	0	0
<p>ALL PATIENTS REMAINING IN THE THEATER</p> <p>ALL PATIENTS REMAINING IN THE CZ HOSPITALS (FROM POPULATIONS SERVED)</p> <p>ALL PATIENTS REMAINING IN THE COMMZ HOSPITALS (FROM POPULATION SERVED)</p> <p>COMMZ DISPERSION FACTOR (1.25)(DISPERSION ALLOWANCE = 20%)</p> <p>COMMZ BED REQUIREMENTS AT END OF EACH 30-DAY PERIOD</p>											3,474.38	3,474.38	13,722.34	15,680.23
											-763.89	-763.89	-4,950.09	-4,950.09
											2,710.49	2,710.49	8,772.25	10,730.14
											X 1.25	X 1.25	X 1.25	X 1.25
											3,388	3,388	10,965	13,413

NOTE: The above example numbers must be substituted with actual numbers when calculating actual operational bed requirements. Total bed requirements rounded to next higher whole number.

Table 5-15. Example for Obtaining Communications Zone and Theater Average Daily Admissions

COMMZ							
PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	EVACUATION POLICY (DAYS)	AVERAGE DAILY STRENGTH (1,000s)	X	ADMISSION RATE	=	TOTAL
WIA	1	30	20	X	.05	=	1.00
DNBI	1	30	20	X	.95	=	19.00

THEATER		
AVERAGE DAILY ADMISSIONS		
	WIA	DNBI
CZ TROOPS (TABLE 5-7)	91.84	172.36
COMMZ TROOPS	1.00	19.00
THEATER TOTAL	92.84	191.36

Table 5-16. Example for Finding Theater Accumulation Factors

PATIENT CLASSIFICATION	PERIODS OF ESTIMATE (30 DAYS)	EVACUATION POLICY (DAYS)	ACCUMULATION FACTORS
WIA	1	30	15.0607
	2	30	0
DNBI	1	30	10.8494
	2	30	0

Table 5-17. Example for Obtaining Total Theater Patients Remaining (Period 2)

PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	FIRST ACCUMULATION FACTOR	X	TOTAL THEATER AVERAGE DAILY ADMISSIONS	=	THEATER PATIENTS REMAINING AT END PERIOD 2
WIA	2	15.0607	X	92.84*	=	1,398.24**
DNBI	2	10.8494	X	191.36*	=	2,076.14**

* Includes COMMZ and CZ figures.
 ** For each current period you evaluate, you define what happens in it and in subsequent time periods. The next step gives an example of theater patients remaining in subsequent time period 3.

Table 5-18. Example for Obtaining Total Theater Patients Remaining (Period 3)

PATIENT CLASSIFICATION	PERIOD OF ESTIMATE (30 DAYS)	SECOND ACCUMULATION FACTOR	X	TOTAL THEATER AVERAGE DAILY ADMISSION	=	THEATER PATIENTS REMAINING AT END OF PERIOD 3
WIA	2	2.6179	X	92.84	=	243.05
DNBI	2	.9543	X	191.36	=	182.61

Table 5-19. Example for Obtaining Total Patients Remaining in Theater Hospitals (Period 1)

PATIENT CLASSIFICATION	PERIOD 1
WIA	1,398.24
DNBI	2,076.14
TOTAL PATIENTS REMAINING IN THEATER HOSPITALS	3,474.38

Table 5-20. Example for Obtaining Total Patients Remaining in Communications Zone Hospitals

	PERIOD 1
ALL PATIENTS REMAINING IN THE THEATER	3,474.38
ALL PATIENTS REMAINING IN CZ HOSPITALS	- 763.89
TOTAL PATIENTS REMAINING IN COMMZ HOSPITALS	2,710.49

Table 5-21. Example for Obtaining
Total Communications Zone
Bed Requirements

	PERIOD 1
ALL PATIENTS REMAINING IN THE COMMZ HOSPITALS	2,710.49
COMMZ DISPERSION FACTOR	X 1.25
COMMZ BED REQUIREMENTS AT END OF 30-DAY PERIOD	3,388

5-11. Methodology for the Continental United States

a. This methodology is presented to show how the conditions within the TO impact on bed requirements for CONUS. Some examples of these conditions are battle intensity, strengths, and evacuation policy. Using Tables 5-2, 5-22, and 5-23, categorize total hospitalization system population served according to expected admission experience. Note that categories have already been developed for that portion of the system's population residing in the theater (paragraph 5-10a). Normally, a HSS planner is only concerned with computing those CONUS requirements generated by operations in a particular theater. In such cases, assume there is no population to be served that resides outside the theater of interest. Process for determining hospital beds required is described in paragraph 5-11 *b, c, and d*, below, and graphically depicted in Table 5-23.

b. Perform steps in paragraph 5-11b(1) through (4) for WIA patients and then again for DNBI patients.

(1) Use the example problem as shown in Table 5-2 (or appropriate actual figures).

Obtain total average daily worldwide system admissions for the current period of estimate by multiplying the average daily strength (in thousands) of each category of population by the corresponding admission rate and then by summing the results for all population categories. Note that worldwide system subtotals (theater totals) have already been obtained (paragraph 5-10 *b* (1)). Also, note that CONUS is only serving requirements generated by this theater (see Table 5-23).

(2) Note that the period of estimate numbered "1" in Table 5-23 corresponds to the current period of estimate in Table 5-22. Since an evacuation policy is not applicable to the total hospitalization system, Table 5-22 need only provide a single column of accumulation factors for each patient type.

(3) Obtain the estimate of admissions remaining in hospitals anywhere at the end of the current period by multiplying the first accumulation factor by the worldwide system's total average daily admissions in the current period. Obtain the estimate of current period admissions remaining in hospitals anywhere at the end of the next period by multiplying the second accumulation factor by the worldwide system's total average daily admissions in the current period. Continue this process for patients remaining at the end of all subsequent periods.

(4) Accumulate admissions still remaining in hospitals anywhere at the end of the various periods of estimate with all previous admissions still remaining at the end of the corresponding periods. Note that DNBI results, as they are obtained, should be added here to WIA results.

c. Obtain the total patients remaining in CONUS hospitals at the end of each period of estimate as follows: For each period, subtract patients remaining in theaters from all patients remaining anywhere.

Table 5-22. Accumulation and Disposition Factors—Total Hospitalization System*

BASED ON THE ASSUMPTION OF ONE ADMISSION PER DAY OF THE SPECIFIED CLASSIFICATION OF PATIENTS DURING THE FIRST PERIOD OF ESTIMATE (30 DAYS AND NONE THEREAFTER).

CURRENT AND SUB-SEQUENT PERIODS**	WOUNDED IN ACTION			DISEASE/NONBATTLE INJURIES			
	ACCUMULATION***	RETURN TO DUTY*	DIED IN HOSPITALS#	ACCUMULATION***	RETURN TO DUTY*	DIED IN HOSPITALS#	DISABILITY DISCHARGE###
1	24.9269	4.6585	.4146	13.7602	16.1905	.0493	.00
2	16.2899	8.5607	.0763	4.1615	9.5856	.0108	.0023
3	11.1763	5.0915	.0161	2.1701	1.9687	.0038	.0189
4	8.5651	2.5657	.0107	1.3283	.8071	.0021	.0326
5	7.0059	1.4791	.0033	.8922	.3928	.0021	.0412
6	5.8345	1.0709	.0010	.6309	.2164	.0011	.0438
7	4.9412	.7688	0	.4520	.1328	.0028	.0433
8	4.2085	.5716	.0006	.3252	.0827	.0009	.0432
9	3.5763	.4302	.0024	.2344	.0527	.0021	.0360
10	3.0439	.3252	.0009	.1713	.0363	0	.0278
11	2.5614	.2512	.0021	.1226	.0241	0	.0246
12	2.1526	.1926	0	.0931	.0141	0	.0134

* Derived from the complete hospitalization and evacuation experience of all US Army WIA and DNBI patients admitted to hospitals in the Korean conflict and all US Army DNBI cases admitted to hospitals in any overseas area during the same period.

** Thirty (30) days each.

*** Accumulation of patients at end of period.

Returns to duty during the period.

Died in hospitals during the period.

Disability discharge during the period.

Table 5-23. Example Computation of Continental United States Bed Requirements

PATIENT TYPE	TOTAL SYSTEM AVERAGE DAILY ADMISSIONS PERIOD OF				TOTAL SYSTEM ACCUMULATION FACTORS FOR SUCCESSIVE PERIODS				TOTAL SYSTEM ACCUMULATION FACTORS PATIENTS REMAINING ANYWHERE AT END OF SUCCESSIVE PERIODS				
	ESTIMATE	THEATER	+ CONUS	= TOTAL X	1	2	3	4	=	1	2	3	4
WIA	1	92.84	0	92.84	24.9269	16.2899	11.1763	8.5651		2,314.21	1,512.35	1,037.61	795.18
	2	92.84	0	92.84	24.9269	24.9269	11.1763	11.1763		2,314.21	1,512.35	1,037.61	1,037.61
	3	376.98	0	376.98			24.9269	16.2899		9,396.94	6,140.97		
	4	376.98	0	376.98				24.9269					9,396.94
DNBI	1	191.36	0	191.36	13.7602	4.1615	2.1701	1.3283		2,633.15	796.35	415.27	254.18
	2	191.36	0	191.36	13.7602	13.7602	4.1615	2.1701		2,633.15	796.35	415.27	415.27
	3	428.16	0	428.16			13.7602	4.1615		5,891.57	1,781.79		
	4	428.16	0	428.16				13.7602					5,891.57
ALL PATIENTS REMAINING ANYWHERE:													
ALL PATIENTS REMAINING IN THEATER:													
ALL PATIENTS REMAINING IN CONUS:													
CONUS DISPERSION FACTOR: 1.11 (DISPERSION ALLOWANCE = 10%):													
CONUS BED REQUIREMENTS AT END OF EACH 30-DAY PERIOD:													
										4,947.36	7,256.06	19,050.09	25,713.51
										-3,474.38	-3,474.38	-13,722.34	-15,680.23
										1,472.98	3,781.68	5,327.75	10,033.28
										X 1.11	X 1.11	X 1.11	X 1.11
										1,635	4,198	5,914	11,137

NOTE: The above example numbers must be substituted with actual numbers when calculating actual operational bed requirements. Total bed requirements rounded to next higher whole number.

d. Obtain the CONUS bed requirements for each period of estimate as follows: Multiply the results of paragraph 5-11 c, above, by the CONUS dispersion factors (1.11).

5-12. Medical Services for Other Special Category Patients

In modern military operations, health care services may be required by a wide category of potential patients. These potential demands should be carefully considered in initial planning. Categories that require careful consideration include indigenous allies, friendly and unfriendly civilians, paramilitary organizations, representatives of various US agencies, US civilian contractor personnel, mercenary units employed by the allied forces, and so forth. As a general rule, any individual may be treated on a humanitarian basis, if space and staff are available. Fine lines of distinction often exist which must be clarified by the command. For example, wounded unfriendly civilians may be detainees, subject to restrictions and regulations which do not apply to EPW. See AR 190-8 for further information regarding detainees.

5-13. Medical Services for Prisoners of War

In accordance with the law of land warfare, EPW patients should be afforded the same level of medical care as patients of the detaining power. Seriously injured, sick, or wounded EPW will be evacuated through medical channels, but will be segregated from US and allied patients. Enemy prisoners of war will be evacuated from the CZ as soon as possible. They will not be hospitalized in hospital wards with US military prisoners. Except in emergencies, EPW will be hospitalized in housing equal to that used for US military personnel. Accountability and security of EPW and their possessions in MTFs are the responsibility of the echelon commander. Ambulatory EPW patients

will be processed through EPW channels following treatment. Qualified medical retained personnel (RP) will be used as much as possible in medical and hygiene work needed for the well-being of EPW. However, medical RP will belong to the same armed forces as the EPW.

5-14. Estimation of Enemy Prisoner of War Bed Requirements

Bed requirements for the total EPW patient load can be estimated grossly on the basis of 4 percent of the total EPW population at any given time multiplied by the appropriate dispersion factor. The dispersion factor would, however, be small since the EPW population is homogeneous and the geographic considerations favor stability of location. The proportion of total bed requirements that are made available for specialized care will depend upon local conditions. Provision is made for specialized treatment beds on the basis of medical intelligence reports of morbidity among enemy troops, diseases endemic to the AO, and type of injuries and wounds resulting from the tactical situation (see Tables 5-4 a through 5-4 h). Table 5-24 shows an example problem used in determining EPW beds based on 2100 EPW captured during a 30-day period by a division in attack of a defensive position with complete surprise attained.

Table 5-24. Estimate of Enemy Prisoner of War Bed Requirements

EPWs CAPTURED PER DIVISION IN A 30-DAY PERIOD	2100
MEDICAL PLANNING FACTOR (.04)	<u>X .04</u>
BEDS REQUIRED	84
DISPERSION FACTOR (LOWER) (1.05)	<u>X 1.05</u>
TOTAL EPW BED REQUIREMENTS	88

5-15. Statistics

Table 5-25 indicates estimated hospital admission rates for several geographical areas based on World War II, the Korean conflict, the Vietnam experience, and subsequent study of the world health situation. These rates should be used only as a basis for planning gross theater HSS. Each rate represents a first-year experience typical of the area involved. (When data are aggregated for greater or lesser periods, the same experience source produces significantly different rates.) The planner must modify these rates, using the latest pertinent medical intelligence data, and consider their historical bases before he applies them in developing HSS work loads and bed requirements for a specific plan or type of combat action.

days the patient spends in hospitals at lower levels. See Table 5-26 for the effects of reducing this policy.

Table 5-25. Rate of Admissions to Hospitals per 1,000 Strengths per Day

1	2	3
AREA	DISEASE AND NONBATTLE INJURIES	WOUNDED IN ACTION
NORTH AMERICA	1.36	0.55
EUROPE	1.62	0.55
NORTHEAST ASIA	2.07	0.37
SOUTHEAST ASIA	0.60	0.20
AFRICA	2.87	0.37
MIDDLE EAST	1.96	0.37
SOUTH AMERICA	1.72	0.37

5-16. Changes in Evacuation Policy

Changes in this policy affect hospital bed requirements. The number of days specified for a level of hospitalization includes the number of

NOTE: In using experience factors from TO, remember that WIA rates are not primarily related to geography. In using such rates for planning, the theater must be considered from the standpoint of the type of combat, size and organization of forces, and weapon employment.

Table 5-26. Effects of a Reduction in Theater Evacuation Policy on Bed Requirement in Continental United States

TYPE CASUALTY	60-DAY EVAC POLICY	-	30-DAY EVAC POLICY	=	DIFFERENCE	X	ADMISSION RATE**	X	AVG THEATER STRENGTH (1,000)	=	PATIENTS
DNBI	13.00*	-	10.85*	=	2.15	X	1.36	X	500	=	1,462
WIA	20.51*	-	15.06*	=	5.45	X	0.55	X	500	=	1,499
TOTAL PATIENTS										=	2,961
20% DISPERSION ALLOWANCE										=	X 1.25
TOTAL ADDITIONAL BEDS REQUIRED										=	3,701

* Accumulation factors from Table 5-13. (Figures have been rounded up.)

** Admission rates from Table 5-25.

Section IV. SUPPORT AGREEMENTS

5-17. Host-Nation Support

Wartime host-nation support will be planned to augment joint medical assets for patient care only when available, of acceptable quality, and documented in host-nation support agreements.

5-18. Joint Hospital Agreements

a. Health care facilities may provide service on a joint basis when directed by the

combatant, subunified, or task force commander to make maximum use of available beds and services, Joint staffing is not a prerequisite to joint use; however, staff augmentation from Service components may be required.

b. When one Service component receives personnel from another Service component, the establishing authority will specify the authority the gaining component will exercise such as OPCON. Administrative responsibility remains with the lending Service.

Section V. MEDICAL FORCE 2000 HOSPITALS

5-19. Hospitalization System

The four Medical Force 2000 hospitals are the MASH, the CSH, the FH, and the GH. The CSH, FH, and GH are designed using a four-module concept. This concept includes the hospital unit, base (HUB); hospital unit, surgical (HUS); hospital unit, medical (HUM); and hospital unit, holding (HUH). The base can operate independently, is clinically similar, and is located in each hospital as the initial building block. The other three mission-adaptive modules are dependent upon the base. This capability may be further enhanced by medical detachment augmentation.

a. Hospitalization Units at Echelon III. The MASH and the CSH are at this echelon. (The medical company, holding, is also found at this echelon. Paragraph 5-24c discusses this unit's capability to be employed by platoon to expand a hospital's minimal care ward facilities. However, these cots are not counted against hospital bed requirements.)

b. Hospitalization Units at Echelon IV. The GH and FH are at this echelon. The FH may also be employed in the CZ. The MASH, CSH, and medical company, holding, may also be deployed in the COMMZ to support rear operations or contingency operations.

5-20. Mobile Army Surgical Hospital, TOE 08-765L000

a. Mission. The mission of the MASH is to provide hospitalization for patients who require resuscitative surgical care and medical treatment to stabilize them for further evacuation to either CZ or COMMZ hospitals from the TO. Although the MASH is an Echelon III unit, it will be deployed as far forward as tactically feasible, preferably the division rear area. As the situation permits, part of the MASH may be deployed in the division support area or a brigade support area along with a divisional medical company to provide an early emergency surgical capability.

b. Assignment. The MASH is assigned to a Medical Brigade, TOE 08-422 L100/200. It may be further attached to a Medical Group, TOE 08-432L000.

c. Capabilities. This unit provides—

- Command and control and supervision of the hospital.
- Emergency medical treatment (EMT) Team A and Team B to receive, triage, and stabilize incoming patients.
- Initial resuscitative surgery and medical treatment for patients requiring stabilization prior to further evacuation.

Ž Three wards (10 beds each) providing preoperative and postoperative acute nursing care (encompasses both the hospital unit, surgical main [HUSM] [two 10-bed elements] and the hospital unit, surgical forward [HUSF] [10-bed]).

Ž Surgical capability based on three operating room (OR) tables for general, thoracic, and orthopedic surgical capacity of 60 OR table hours per day. (These hours encompass both the 20-bed HUSM [one table at 24 hours and one table at 12 hours] and the 10-bed HUSF [one table at 24 hours]).

- Echelon I care for organic personnel.
- Pharmacy, clinical laboratory, liquid blood, radiology, central materiel service, and nutrition care services.

Ž Patient administration, unit administration, religious support, food service, and health service logistics.

- A HUSF, TOE 08-577LA00 that can operate detached for up to 48 hours with the following capabilities:

Ž EMT Team B to receive, triage, and stabilize incoming patients.

- Surgical capability based on one OR table for a general surgical capacity of 24 OR table hours per day for up to two days.

- One ward providing preoperative and postoperative acute nursing care for up to 10 patients.

d. Dependency. This unit depends on—

- Medical Detachment, Surgical, TOE 08407L100, and Medical Detachment, Surgical (Airborne), TOE 08407L200, to increase capacity by 12 OR table hours per day.

- Hospital Unit, Surgical Forward, TOE 08-5771A00, to augment the emergency room, operating room, and acute care ward.

e. Mobility. The MASH is 100 percent mobile.

f. Basis of Allocation. Two MASHs are allocated per corps.

5-21. Combat Support Hospital, TOE 08-705L000

a. Mission. The mission of this 296-bed hospital is to provide resuscitation, initial wound surgery, and postoperative treatment. Patients are stabilized for further evacuation or they are RTD if they fall within the corps evacuation policy. This hospital is capable of handling all types of patients and will normally be employed in the corps area.

b. Assignment. The CSH is assigned to a medical brigade and maybe further attached to an HHD, medical group.

c. Capabilities. At full strength, this unit provides—

- Hospitalization for up to 296 patients. The hospital has—

- Ž Eight wards providing intensive nursing care for up to 96 patients.

- Seven wards providing intermediate nursing care for up to 140 patients.

- Ž One ward providing neuro-psychiatric care for up to 20 patients.

- Two wards providing minimal nursing care for up to 40 patients.

- Ž Surgical capacity based on eight OR tables for surgical capacity of 144 OR table hours per day.

- Consultation services for patients referred from other MTFs.

- Ž Echelon I HSS for organic personnel.

- Pharmacy, clinical laboratory, blood banking, radiology services, and nutrition care services.

- Ž Physical therapy services including patient and staff care, injury prevention, health maintenance, and consultation.

- Medical administrative and logistical services to support work loads.

- Dental treatment to staff and patients and oral surgery support for military

personnel in the immediate area plus patients referred by the area HSS units.

d. Mobility. The CSH is 35 percent mobile.

e. Basis of Allocation. The CSHs are allocated based on 100 percent of the projected beds required in the CZ.

5-22. Field Hospital, TOE 08-715L000

a. Mission. This 504-bed facility provides hospitalization—

- For patients within the theater who require further stabilization prior to evacuation.

- For patients who will RTD within the prescribed theater evacuation policy.

The majority of patients within this facility will be in the reconditioning and rehabilitating category. The FH will normally be located in the COMMZ; however, circumstances may direct that this hospital be employed in the corps.

b. Assignment. The FH is assigned to a MEDCOM. It may be further attached to a medical brigade.

c. Capabilities. At full strength, this unit provides—

- Hospitalization for up to 504 patients. The hospital has—

- Two wards providing intensive nursing care for up to 24 patients.

- Seven wards providing intermediate nursing care for up to 140 patients.

- One ward providing neuro-psychiatric care for up to 20 patients.

- Two wards providing minimal nursing care for up to 40 patients.

- Seven patient support sections providing convalescent care for up to 280 patients.

Ž Surgical capability based on four operating tables for a surgical capacity of 48 OR table hours per day.

- Consultation services for patients referred from other MTFs.

Ž Echelon I HSS for organic personnel.

Ž Pharmacy, clinical laboratory, blood banking, radiology, and nutrition care services.

- Physical and occupational therapy services including patient and staff care, injury prevention, health maintenance, and consultation.

- Medical administrative and logistical services.

- Dental treatment to staff and patients and oral surgery support for military personnel in the immediate area plus patients referred by area HSS units.

d. Mobility. This unit requires organic vehicles to perform housekeeping functions. All movement requirements are the responsibility of theater transportation units.

e. Basis of Allocation. Field hospitals are allocated based on 70 percent of the projected hospital beds required in the COMMZ.

5-23. General Hospital, TOE 08-725L000

a. Mission. This 476-bed facility provides stabilization and hospitalization for general classes of patients. The GH serves as the primary conduit for patient evacuation to CONUS. The GH will be located in the COMMZ.

b. Assignment. The GH is assigned to a MEDCOM and maybe further attached to a medical brigade.

c. Capabilities. At full strength, this unit provides—

- Hospitalization for up to 476 patients consisting of eight wards providing intensive nursing care for up to 96 patients; sixteen wards providing intermediate nursing care for up to 320 patients; one ward providing neuro-psychiatric care for up to 20 patients; and two wards providing minimal nursing care for up to 40 patients.

- Surgical capability based on eight OR tables for a surgical capacity of 144 OR table hours per day.

Ž Consultation services for patients referred from other MTFs.

- Echelon I HSS for organic personnel.

- Pharmacy, clinical laboratory, blood banking, radiology, and nutrition care services.

Ž Physical and occupational therapy services including patient and staff care, injury prevention, health maintenance, and consultation.

- Medical administrative and logistical services.

Ž Dental treatment to staff and patients and oral surgery support for military personnel in the immediate area plus patients referred by the area medical units.

d. *Mobility.* This unit requires organic vehicles to perform housekeeping functions. All movement requirements are the responsibility of theater transportation units.

e. *Basis of Allocation.* General hospitals are allocated based on 30 percent of the projected hospital beds required in the COMMZ.

NOTE

Minimal reequipping of RTD soldiers from Echelons III and IV hospitals will consist of basic uniform items to protect the soldier during transit to replacement companies.

5-24. Medical Company, Holding, TOE 08-458L000

a. *Mission.* The medical company, holding, provides—

- Holding capability within the CZ for up to 1,200 minimal care patients.
- Minor medical treatment and physical rehabilitation for patients being held.

b. *Assignment.* The medical company, holding, is assigned to Medical Brigade, TOE 08-422L100 or 08-422L200. It is normally attached to the medical group within the CZ.

c. *Capabilities.* This unit—

Ž Provides five holding platoons, each capable of operating a holding facility with

240 supplemental cots for minimal care type patients. Platoons are organized consisting of six holding squads, each having a capacity of 40 patients, and one treatment squad.

Ž May be employed by platoon to expand hospital minimal care ward facilities.

- May be employed by platoon in conjunction with CSC squads to hold combat fatigue casualties.

- May be employed to augment USAF MASF.

Ž May be assigned responsibility for providing limited area HSS.

d. *Mobility.* This unit—

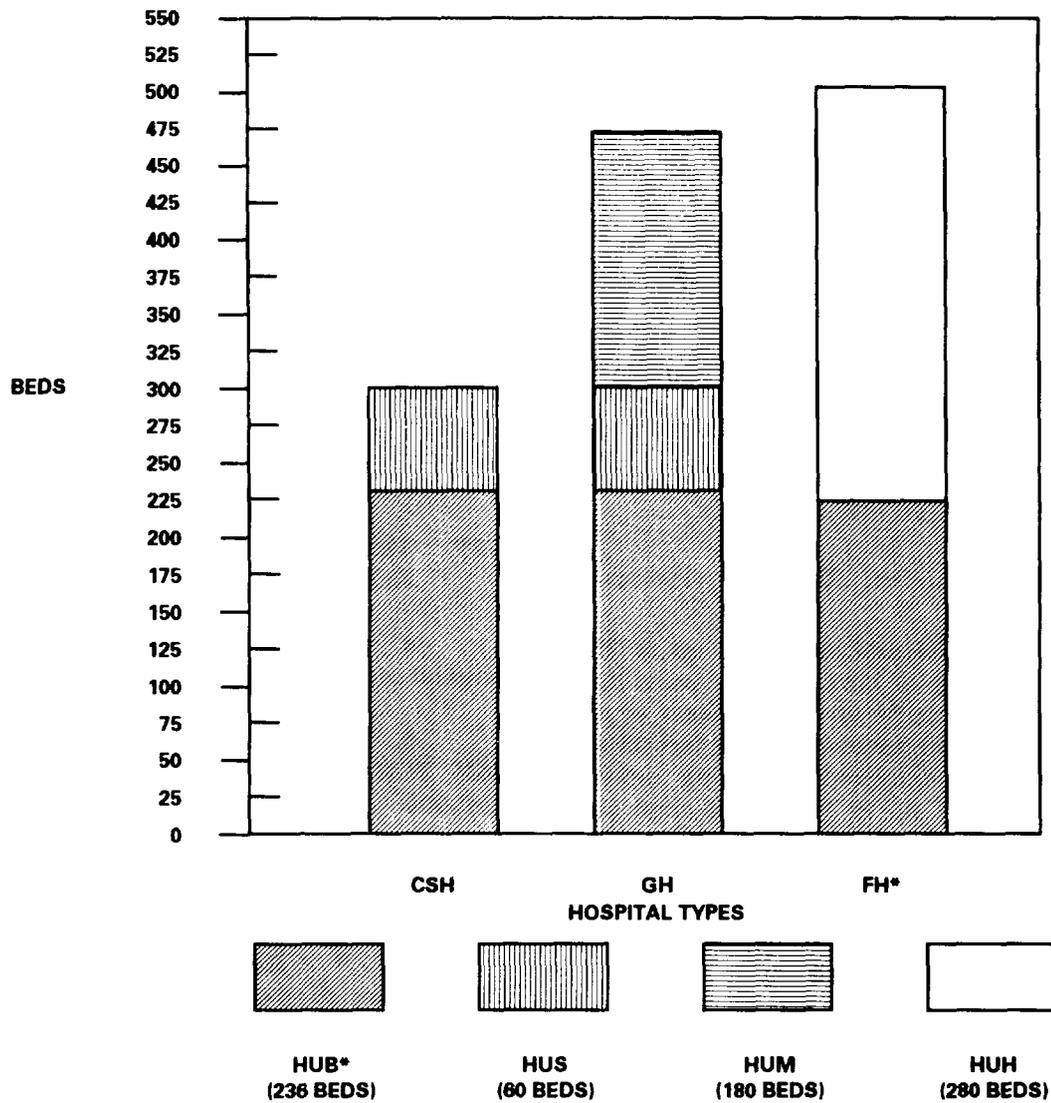
Ž Is capable of transporting 113,000 pounds (9,978.0 cubic feet) of TOE equipment with organic vehicles.

- Has 40,831 pounds (2,864.3 cubic feet) of TOE equipment requiring transportation.

e. *Basis of Allocation.* This unit is allocated on the basis of one per corps.

5-25. Various Hospital Configurations

As stated earlier, all of the hospitals, except the MASH, are configured using various combinations of the component hospital system. The CSH, the FH, and the GH consist of a base component which is clinically similar in all hospitals and one or more mission-adaptive component(s) to meet work load requirements. The components are the HUB, HUS, HUM, and HUH. Figure 5-1 depicts the component hospital system.



* ALTHOUGH THE HUB HAS 236 BEDS, WHEN IT IS USED AS THE BASE COMPONENT FOR THE FH, IT IS ONLY STAFFED TO PROVIDE HOSPITALIZATION FOR 224 PATIENTS. IN THE FH CONFIGURATION, THE HUB HAS TWO INTENSIVE CARE WARDS THAT PROVIDE CARE FOR UP TO 24 PATIENTS. BY CONTRAST, IN THE CSH AND GH CONFIGURATIONS, THE HUB HAS THREE INTENSIVE CARE WARDS THAT PROVIDE CARE FOR UP TO 36 PATIENTS. THIS IS THE REASON FOR THE 12-PATIENT DIFFERENCE IN THE FH CONFIGURATION.

Figure 5-1. Component hospital system.

5-26. The Hospital Unit, Base, TOE 08-736L000

a. Mission. The HUB provides hospitalization for patients within the CZ and COMMZ.

b. Assignment.

(1) The HUB, TOE 08-736L100, is organic to CSH, TOE 08-705 L000.

(2) The HUB, TOE 08-736 L200, is organic to FH, TOE 08-715L000.

(3) The HUB, TOE 08-736L300, is organic to GH, TOE 08-725L000.

c. Capabilities. This unit provides—

- Hospitalization for up to 236 patients consisting of three wards providing intensive nursing care for up to 36 patients, seven wards providing intermediate nursing care for up to 140 patients, one ward providing neuropsychiatric care for up to 20 patients, and two wards providing minimal nursing care for up to 40 patients.

- Surgical capability based on four OR tables for 48 OR hours per day.

NOTE

This capability does not apply to a HUB assigned to a FH.

- Consultation services for outpatients referred from other MTFs.

Ž Echelon I HSS for organic personnel only.

- Pharmacy, clinical laboratory, blood bank, radiology, and nutrition care services.

Ž Physical therapy support to patients.

- Medical administrative and logistical services to support work loads.

- Oral and maxillofacial services, oral surgical consultation and referral services to area support dental units, and general dental services for patients and staff.

Ž Occupational therapy support.

5-27. The Hospital Unit, Surgical, TOE 08-737L000

a. Mission. The HUS provides increased surgical capability to a HUB.

b. Assignment. A HUS is organic to a CSH, TOE 08-705L000, and to a GH, TOE 08-725L000.

c. Capabilities. As a component in the CSH or GH, this unit provides—

Ž Hospitalization for up to 60 patients consisting of five wards providing intensive nursing care.

Ž Surgical capability based on four OR tables for a surgical capacity of 96 OR table hours per day.

- Echelon I HSS, less dental, for organic personnel.

Ž Radiology augmentation services up to 60 patients.

- Medical administrative services.

d. Mobility. The mobility of the HUS is dependent on corps or TA transportation support.

e. Basis of Allocation. The HUS is assigned (a component) as follows—

- One per CSH, TOE08-705L000.
- One per GH, TOE 08-725L000.

5-28. The Hospital Unit, Medical, TOE 08-738L000

a. Mission. The mission of the HUM is to provide medical augmentation to a HUB.

b. Assignment. A HUM must be assigned to a GH, TOE 08-725L000.

c. Capabilities. As a component of the GH, this unit provides—

- Hospitalization for up to 180 patients consisting of nine wards providing intermediate nursing care.

Consultation services for outpatients referred from other MTFs.

- Pharmacy, clinical laboratory, and radiology augmentation services for up to 180 inpatients.

- Physical and occupational therapy augmentation support.

d. Mobility. The mobility of the HUM is dependent on corps or TA transportation support.

e. Basis of Allocation. One HUM is allocated per GH.

5-29. The Hospital Unit, Holding, TOE 08-739L000

a. Mission. The mission of the HUH is to provide hospitalization for patients returning to duty within the prescribed theater policy.

b. Assignment. The HUH must be assigned to the FH, TOE 08-715L000.

c. Capabilities. As a component of the FH, this unit provides—

- Hospitalization for up to 280 patients consisting of seven patient support sections providing convalescent care for up to 280 patients.

- Echelon I HSS, less dental, for organic personnel.

• Physical and occupational therapy support to patients.

- Medical administrative and logistical services.

d. Mobility. The mobility of the HUH is dependent on corps or TA transportation support.

e. Basis of Allocation. One HUH is allocated per FH.

5-30. Surgical Service Teams

a. Mission. The mission of these teams is to provide surgical augmentation to CZ and COMMZ hospitals.

b. Assignment. These teams are assigned to a MEDCOM, medical brigade, or a medical group and may be further attached to subordinate hospitals as required.

c. Detailed Characteristics of Teams.

(1) Medical Team, Head and Neck Surgery, TOE 08-527LA00.

(a) *Capabilities.* This team provides initial and secondary maxillofacial and ear, nose, and throat surgery in support of theater hospitals.

(b) *Basis of allocation.* This team is allocated as follows:

- \tilde{Z} .25 per CSH.
- .25 per FH.
- .25 per GH.

(2) Medical Team, Neurosurgery, TOE 08-527LB00.

(a) *Capabilities.* This team provides initial and secondary neurosurgery in support of theater hospitals.

(b) *Basis of allocation.* This team is allocated as follows:

- \tilde{Z} .37 per CSH.
- .37 per FH.
- .37 per GH.

(3) Medical Team, Eye Surgery, TOE 08-527LC00.

(a) *Capabilities.* This team provides initial and secondary ophthalmologic surgery in support of theater hospitals and consultative services as required on an area basis.

(b) *Basis of allocation.* This team is allocated as follows:

- .25 per CSH.

- .25 per FH.
- .25 per GH.

5-31. Medical Service Teams

a. *Mission.* The mission of medical service teams is to provide medical augmentation to CZ and COMMZ hospitals.

b. *Assignment.* These teams are assigned to a MEDCOM, a medical brigade, or a medical group and may be further attached to subordinate hospitals as required.

c. *Detailed Characteristics of Teams.*

(1) Medical Team, Pathology, TOE 08-537LA00.

(a) *Capabilities.* This team provides investigative pathology support. It can provide a limited investigative response to NBC agents and perform aviation pathology investigations of aviation facilities, to include examining forensic pathology cases of command interest.

(b) *Basis of allocation.* One team is allocated per theater.

(2) Medical Team, Renal Dialysis, TOE 08-537LB00.

(a) *Capabilities.* This team provides renal hemodialysis care for patients with acute renal failure and consultative services on an area basis.

(b) *Basis of allocation.* One team is allocated per theater.

(3) Medical Team, Infectious Disease, TOE 08-537LC00.

(a) *Capabilities.* This team provides infectious diseases investigative and consultative services to the hospital to which attached.

(b) *Basis of allocation.* This team is allocated as follows:

- .185 per CSH.
- .185 per FH.
- .185 per GH.

5-32. Medical Detachment, Surgical, TOE 08-407L100, and Medical Detachment, Surgical (Airborne), TOE 08-407L200

a. *Mission.* This unit provides a rapidly deployable initial surgical service forward in a division's AO.

b. *Assignment.* This unit may be assigned to MEDCOM, TOE 08111, Medical Brigade, TOE 08112, or Medical Group, TOE 08122, and attached to subordinate AMEDD command and control units as required by the nature of operations of the forces being supported.

c. *Capabilities.* This unit provides-

(1) Life- and limb-saving (initial) surgery in the CZ.

(2) Initial surgery forward in support of Echelon II HSS for a period of up to 48 hours.

(3) Initial surgery with its organic medical equipment set for up to 40 critically wounded/injured patients.

(4) Personnel augmentation to Echelon III hospitals when not task-organized to support Echelon II HSS.

(5) Preoperative and postoperative care to patients with the assistance of the patient holding squad when attached to Echelon II HSS units.

d. *Dependency.* This unit is dependent on—

(1) The unit to which it is operationally attached to provide sheltered working space, commonly used equipment such as patient holding medical equipment sets, and services such as food service, security, and unit maintenance.

(2) When attached to an Echelon II HSS unit, the surgical detachment is dependent upon that unit for food services, administration services, and local security. It is dependent upon division-level military police for response force operations when deploying into and moving through the division area.

(3) Appropriate units of the COSCOM for rigging when airdrop operations are required (airborne version only).

e. *Basis of Allocation.* One unit is allocated per division supported. (One of every four surgical detachments in a corps area will be airborne qualified.)

Section VI. SPECIAL PATIENT ADMINISTRATION FUNCTIONS

5-33. Initiating, Maintaining, and Disposing of Health Records

a. *Health Records of Deployed Soldiers.* The health record (HREC) is a permanent and

continuous file. Health records will be prepared and maintained for all active duty (AD) personnel; however, HRECs of deployed soldiers will not accompany them to combat areas. During mobilization, when processing soldiers for

deployment, the MTF and DTF will perform the following:

(1) Audit each soldier's HREC and record essential health- and dental-care information on DA Form 8007. This form is a single-page document that will be prepared for every soldier in CONUS and OCONUS and will replace the HREC during deployment. ADA Form 8007 should be initiated and/or updated during record screening. (The AMEDD officer in charge must ensure that any health problems of a newly arrived person are treated, and thus, that the person's HREC is reviewed when received.) The DA Form 8007 is intended for use until an electronic device that stores medical or dental, personnel, and finance data is fielded. The preparation and use of DA Form 8007 is applicable as well to civilian employees who may accompany deploying units. Units in the CONUS and OCONUS are encouraged to use DA Form 8007 during training exercises. (See AR 40-66 and AR 640-10.)

(2) If the HREC is not available, complete DA Form 8007 by interviewing the soldier and obtaining information from locally available data. An HREC may not be available for most Individual Ready Reserve, Individual Mobilization Augmentee, and retired personnel because these HRECs may remain on file at the US Army Personnel Center (USARPERCEN).

(3) Provide the completed DA Form 8007 to the soldier's command, or to the soldier if he is an individual replacement. The command or the soldier will hand off DA Form 8007 to the MTF in the AO responsible for providing primary medical care. That MTF will maintain DA Form 8007 in an outpatient field file for reference as needed. The field file will consist of, in part, DA Form 8007 and possibly SF 600, SF 558, SF 603, or DD Form 1380.

(4) The soldier's field file may be managed as a drop file (forms not attached).

(5) After deployment processing, the HREC and the dental record will be placed in the DA Form 201. The Military Personnel Records Jacket, US Army (MPRJ), to include medical records, will remain at the mobilization station at least 90 days after deployment before forwarding to the USARPERCEN, St. Louis, Missouri.

b. Forward Deployed Force. If the battle field situation permits, follow the procedures in 5-33a(1)-(4) described above. If not, consolidate HRECs in-country and process them when time permits.

c. Limited Contingency Operation. Retain the HREC at the MTF/DTF providing primary care. If the primary care facility closes, forward the HREC to the MTF indicated by the servicing medical department activity and dental activity. Should full mobilization occur, follow guidance in 5-33a(1)-(4) above.

d. Units That Do Not Process Through a Mobilization Station. For rapid deployment units that do not process through a mobilization station prior to deployment or otherwise do not have access to an MTF, procedures will be similar to those of a forward deployed force. See 5-33b above. Records will be consolidated by the unit and processed as time permits at the first MTF encountered during preparations for deployment or after deployment.

5-34. Procedures After Deployment

Procedures for filing and storing permanent HRECs after deployment will be as deemed appropriate by USARPERCEN.

5-35. Use of Field Files

a. If a soldier's primary MTF changes, the field file should be moved to the gaining MTF.

b. If a soldier requires admission to the hospital, every attempt will be made to forward the field file. The file will be returned to the soldier's primary MTF if disposition is return to duty.

5-36. Operation After Hostilities Cease

a. Field files will be used to update the original HREC after hostilities cease. This will be accomplished by the activity responsible for maintaining the record after demobilization such as—

- USARPERCEN for soldiers leaving the service, returning to reserve status, or who otherwise would be serviced by USARPERCEN.
- National Guard Bureau for soldiers who are returning to National Guard (NG) service.

• Medical treatment facility for soldiers remaining on active duty. Each MTF must request records from USARPERCEN for those soldiers who are assigned for support upon demobilization.

b. Identification entries on SF 600, SF 603, and DD Form 1380 for outpatient treatment will include at least the patient's name, grade, social security number, status (AD, Reserve, NG), permanent unit of assignment, and unit or home address.

6-37. Use and Disposition of Inpatient Treatment Records

a. An Inpatient Treatment Record (ITR) will be prepared for every bed patient. If the theater surgeon, or equivalent, determines that their use is temporarily inconsistent with combat operations, the Field Medical Card (FMC) maybe

substituted for the ITR until complete ITR usage can be established.

b. Inpatient Treatment Records will be prepared and maintained according to AR 40-66. Upon demobilization, ITRs remaining in the MTF will be retired according to guidance from the Chief, Patient Administration Division, Office of The Surgeon General.

5-38. Use of DD Form 1380

The DD Form 1380 is used to record data similar to that recorded on the ITR cover sheet. The FMC will be used by combat medics, aid stations, clearing stations, and treatment teams operating at nonfixed troop clinics for individuals working overseas, on maneuvers, or attached to commands moving between stations. It may also be used to record outpatient visits when the patient's HREC is not readily available. For preparation instructions, refer to AR 40-66.

5-39. Reporting Requirements

a. Timely reporting and dissemination of information to facilitate tracking of patients must be closely coordinated between the PAD, patient's unit, MRO, Adjutant General's office, and mortuary affairs.

b. Daily bed status reports contain the number of occupied and available beds by clinical specialty. Additionally, surgical backlog, in hours, as well as other work load information, is reported on at least a daily basis to the parent medical group, medical brigade, or MEDCOM. Based upon the tactical situation, more frequent reporting may be required. The bed status report is either transmitted directly by the PAD to a higher headquarters, or it may be consolidated within the MTF as part of the MTF daily medical situation report.

c. Admission and disposition (MD) reports will be prepared daily for each calendar day the MTF is in operation. Distribution of the AWI report will be locally determined based upon the recipient's demonstrated need to know.

d. DA Form 3647 and DA Form 2985 are all part of the Individual Patient Data System (IPDS) and will be prepared according to AR 40-66 and AR 40-400.

(1) DA Form 3647 and DA Form 2985 will be prepared for each patient admitted to a contingency MTF. The records generated from the 1st through the 15th day of the month must be transmitted no later than the last day of the month. The records generated from the 16th through the last day of the month must be transmitted no later than the 16th of the following month.

(2) These forms will be transmitted by priority mail to the Commander, US Army Patient Administration Systems and Biostatistics Activity, ATTN: HSHI-QPI, Fort Sam Houston, TX 78234-6070.

(3) The forms will be transmitted in register number sequence. Each transmittal will include all forms for all dispositions and carded for record only cases for that report period. A transmittal will not be delayed because of incomplete records. Negative reports are required for control purposes. Each transmittal will include a transmittal letter. See AR 40-400.

e. The DA Form 2789-R series is used for the Medical Summary Reporting System (MSRS). Each functioning MTF will prepare and submit the initial, monthly, and final DA Form 2789-R series per AR 40-400. One copy of the report will be submitted to the command surgeon's

office and one to the Patient Administration Systems and Biostatistics Activity, ATTN: HSHI-QBR, Fort Sam Houston, TX 78234-6070.

f. Casualty reporting will be accomplished according to AR 600-8-1.

g. The TAMMIS Medical Patient Accounting and Reporting (MEDPAR) subsystem will be used, when available, to support the automated management and reporting of patients within, around, and out of the TO. The MEDPAR operates within the corps and the EAC. Individual patient data are accumulated to determine the availability of medical resources and to support the personnel and casualty reporting system. The existence of MEDPAR does not eliminate the requirement for medical statistical reporting referenced above.

5-40. Medical Records and Forms for Enemy Prisoners of War and Retained Personnel

The medical records and forms used for hospitalization and treatment of US Army personnel (AR 40-66 and AR 40-400), together with those described in AR 190-8, will be used for EPW and RP personnel. They will be stamped properly with the letters EPW or RP at the top and bottom of each form. Medical and dental records will accompany persons when they are transferred.

5-41. Funds and Valuables

Patient funds and valuables will be identified and secured by a designated custodian for safekeeping during a soldier's hospitalization. Further information concerning the definition of funds and valuables and the actual process of securing these items may be found in AR 40-2.