FIELD MANUAL
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DENTAL SERVICE SUPPORT IN A THEATER OF OPERATIONS

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PREFACE

This field manual (FM) provides basic doctrine and the tactics, techniques, and procedures required for dental service support in a theater of operations (TO). It focuses on current health service support (HSS) AirLand Battle doctrine. The tactics, techniques, and procedures provided are not all-inclusive. They are meant only as a guide which specific units may tailor to their needs.

This manual implements North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) 2931, Camouflage of the Geneva Emblem on Medical Facilities on Land.

Echelon is a NATO term used to describe levels of medical care. For the purpose of this manual, the terms "level" and "echelon" are interchangeable.

The proponent of this publication is the United States (US) Army Medical Department Center and School (AMEDDC&S). Users of this manual are encouraged to submit comments and recommendations on Department of the Army (DA) Form 2028, directly to **Commander, AMEDDC&S, ATTN: HSMC-FCD, Fort Sam Houston, Texas 78234-6100.**

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

The use of trade names in this publication does not imply endorsement by the US Army, but is intended only to assist in the identification of a specific product.

FOREWORD

A highly trained and well equipped ready dental force is the essential ingredient for successful accomplishment of the dental service support mission.

The dramatic changes in the course of world events of the early 1990's, marked by disintegration of the former Soviet Union and the disappearance of the Iron Curtain, have become the basis for a "New World Order." The primal threat to United States interests posed by massive Warsaw Pact forces arrayed against Western Europe no longer exists; however, the threat posed as a result of regional conflicts throughout the world where United States interests are at stake remains. The defense strategy of the United States has adapted to the changing threat by shifting away from a massive forward-deployed force strategy toward one which relies on rapid projection of United States-based contingency forces in response to regional conflicts.

As part of the overall health service support system, dental service support must be responsive to the needs of the fighting force whenever and wherever they may be employed. To do so, dental units and dental assets must be prepared to support a broad range of contingencies from humanitarian assistance as part of low-intensity conflict to the high-tempo operations of mid- to high-intensity conflict. Today, more so than ever before, flexibility and the capability to adapt to rapidly changing situations will be the catalyst for successful accomplishment of the dental service support mission.

This manual contains the doctrine which will be used into the next century to provide dental service support in the theater of operations. It is the binding element of the dental service support portion of Medical Force 2000 which also includes new dental organizations and modernized dental equipment, all designed and developed as a coordinated package. The doctrine contained herein goes beyond "standard" operations. It also addresses those nonstandard situations which have been the bane of the dental service support system in the past. Most importantly, it provides options and possible solutions to problems which will be posed by a myriad of possible contingency scenarios.

This publication represents the collective input of many individuals from within and outside the Army Dental Care System. It incorporates experience and lessons learned from many exercises and deployments throughout the world. It represents the concerns of the major commands. It also addresses the concerns and experiences of the Reserve Component. It is consistent with the overall health service support doctrine contained in the keystone Field Manual 8-10. It is truly an outstanding product and will enhance dental service support to the fighting force, now and into the future.

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CHAPTER 1

OVERVIEW OF DENTAL SERVICE SUPPORT

Section I. INTRODUCTION

1-1. General

Modernization of Army forces and combat doctrine requires that HSS doctrine evolve to meet changing needs. Medical Force 2000 (MF2K) is the Army Medical Department's (AMEDD) initiative to provide effective HSS to the Army of the twenty-first century. Dental support is one of the ten functional areas which comprise the MF2K HSS organization. Dental support enhances the combat power available to the commander by providing necessary care when and where it is required. This is accomplished through the use of modern, lightweight equipment, echeloned dental care, and flexible dental organizations. Dental support maximizes the return to duty (RTD) of dental casualties and sustains and maintains the dental fitness of deployed troops.

1-2. Tenets of Health Service Support

The MF2K organization offers substantial improvement infield dental support with particular attention to the following tenets of HSS:

a. Prevention. Prevention of disease and injury is the most resource-efficient means of maintaining the health of the soldier. The majority of inflammatory dental emergencies can be prevented with appropriate treatment and continued oral hygiene on the part of the soldier.

b. Return to Duty. A healthy, well trained, and motivated soldier is the most critical resource on the modern battlefield. The primary goal of field dentistry is to attend to the soldier's dental needs and return him to his unit as quickly as possible in a condition that allows him to effectively perform his mission.

c. Modular Medical/Dental Support. Dental units are designed under a modular concept to allow flexibility and ease of augmentation, reinforcement, or reconstitution. Dental elements under the modular support system (Echelon II) are found in the area support squad of division medical companies and corps area support medical companies (ASMCs). The dental modules in these units are identical to the modules found in the forward treatment sections of the medical companies and medical detachments (dental service) and the ASMCs. The dental module is composed of a dental officer, a dental assistant, and compact, high-technology equipment. Chapter 2 provides more detail on dental modules.

d. Enhanced Far Forward Care. Dental support is designed to provide dental care which allows the soldier to be treated as far forward as possible. Far forward care reduces the time and resources needed to evacuate a soldier for dental care.

Section II. CONCEPT FOR DENTAL SERVICE SUPPORT

1-3. General

Dental service support assists in accomplishing the AMEDD's mission to conserve the Army's fighting strength by—

- Preventing oral disease.
- Promoting dental health.
- Providing dental treatment as far forward as possible to eliminate or reduce the effects of dental disease and injury.
- Providing early treatment of severe oral and maxillofacial injuries for casualties that must be evacuated.

1-4. Echelonment of Health Service Support

Health service support is arranged into echelons. Each higher echelon reflects an increase in capability, but can perform the functions of each lower echelon. Dental assets in the TO are found at Echelons II, III, and IV. The glossary provides a description of the HSS Echelons of Medical Care, I—IV. Refer to FM 8-10 for a more detailed description.

1-5. Categories of Dental Care

Dental support in a TO is classified into three categories of care: emergency, sustaining, and maintaining. A fourth category of highly specialized support termed comprehensive care is available only in the continental United States (CONUS). These categories are not absolute in their limits; however, they are the general basis for the definition of dental service capability at the various echelons of HSS. Each category is successively greater in service provided and corresponding resources required to provide that service. Sustaining care is capable of less definitive treatment than maintaining care, but requires less equipment and is more suited to use further forward in the battlefield where weight and mobility are greater concerns. Conversely, maintaining care provides a much wider spectrum of services, but is far more resource dependent and less suited to use in a rapidly moving scenario. Again, categories of dental care are not intended as absolute boundaries. They are better thought of as additive zones with each higher category including the capability of those lower.

a. Emergency Care. Emergency dental care is given for relief of oral pain, elimination of acute infection, control of life threatening oral conditions (hemorrhage, cellulitis, or respiratory difficulties) and treatment of trauma to teeth, jaws, and associated facial structures. Consistent with the HSS tenet of RTD, this care is expeditious and is available throughout the TO. It is the most austere type of care and is even available to soldiers engaged in tactical operations. Common examples of emergency treatments are simple extractions, antibiotics, pain medication, and temporary fillings.

b. Sustaining Care. Sustaining care is dental treatment necessary to intercept potential emergencies. This type of care is essential for prevention of lost duty time and preservation of fighting strength. Soldiers in Dental Class 3 (potential dental emergencies) should be provided sustaining care as the tactical situation permits (see Appendix A for dental classifications). Common examples of sustaining care procedures are basic restorations, extractions, interim pulpal therapy (pulpectomy), treatment of periodontal conditions, and simple prosthetic repairs. Sustaining dental care is consistent with Echelon II HSS. Dental modules organic to divisions, separate brigade-size unit medical companies, ASMCSs, special forces groups (SFGs), and forward treatment sections of area support dental units are equipped to provide sustaining care.

c. Maintaining Care. Maintaining care is intended to maintain the overall oral fitness of soldiers at a level consistent with combat readiness. Soldiers in Dental Class 2 should be provided maintaining care as the tactical situation and availability of dental resources permit. Maintaining care is the highest category of care available in the TO and is provided by area support dental units. The scope of services includes restorative, exodontic, minor oral surgical, periodontics, endodontics, prosthodontic, and preventive procedures.

d. Comprehensive Care. Comprehensive dental care consists of those highly specialized procedures normally accomplished in fixed facilities in CONUS. Examples are reconstructive maxillofacial surgery, maxillofacial prosthodontics, and extensive oral rehabilitation and dental restoration. Though usually not available in the TO, comprehensive care is nevertheless a critical part of the dental continuum of care which extends from forward areas of the combat zone (CZ), through the communications zone (COMMZ), to CONUS base.

CHAPTER 2

ORGANIZATION OF FIELD DENTAL SUPPORT

Section I. INTRODUCTION

2-1. General

Dental service support is an integral part of the theater HSS system and shares in the overall AMEDD mission to conserve the fighting strength. The responsibility of the field dental care system is to maintain the soldiers' oral health by preventing and treating dental disease and injury. To accomplish this, dental support in the TO is organized into a flexible system which can respond to rapidly changing conditions across the continuum of dental care. Approximately two-thirds of the dental assets in the theater are organized into dental units whose primary mission is to provide dental service. The remainder are organic to Echelon II medical companies and Echelons III and IV hospitals.

2-2. Types of Dental Support

There are three types of dental support in the TO—unit, hospital, and area. They are defined primarily by the relationship of the dental assets with the supported patient population. Each type of support is described in this chapter.

Section II. UNIT DENTAL SUPPORT

2-3. General

UNIT dental support is provided by dental personnel organic to Echelon II medical units. Dental modules, briefly described in Chapter 1, are organic to the area support squads in the medical companies of divisions, separate brigades and armored cavalry regiments (ACRs), and the medical element of the SFG. Dental modules are also found in the area support squads of the ASMCs located throughout the CZ and COMMZ. The dental modules which are the basis of unit dental support have the capability to provide sustaining care as discussed in Chapter 1. Their primary objective, however, is to RTD the soldier as rapidly as possible consistent with the tactical situation. At times, circumstances may allow provision of expedient emergency care only, while at other times circumstances may allow the full range of sustaining care.

2-4. Unit Dental Support Organization

a. Dental modules are organic to the area support squad in the medical companies of each division, separate brigade/ACR, SFG, and area support medical battalion (ASMB). Each division has one comprehensive dentist (MAJ 63B) in the dental module of the main support battalion medical company and a general dentist (CPT 63A) in the dental module of each forward support battalion. A dental specialist (91E10) is also assigned as part of each of these modules.

b. The modules in separate brigade/ACR medical companies and SFGs have a CPT (63A) and a SPC (91E10). Similar to the division, the dental modules in separate brigades/ACRs are in the area support squads of the medical company/troop of the support battalion/squadron. The dental module in the SFGs is located in the medical platoon of the service companies.

c. Each unit support dental officer also functions as the dental surgeon for his supported unit–a special staff position. In the division, the 63B comprehensive dentist of the main support medical company is the division dental surgeon. The unit dental surgeon's responsibilities are discussed in greater detail in Section V of this chapter.

2-5. Concept of Operations

a. Unit dental personnel are not present in sufficient numbers to provide dental care to all the members of their supported units on a continuous basis without support from area support dental units. Therefore, depending on the situation, it may be necessary to return personnel to their units with other than definitive treatment (for example, temporary as opposed to permanent restorations).

The primary concern of unit dental personnel is to RTD the soldier as expeditiously as possible in a condition to continue his duties. Unit dental support relies on corps-level area dental support units for provision of higher categories of care (maintaining). Modules of area dental support units also augment or reconstitute unit dental elements when necessary.

b. Dental casualties in maneuver battalions are evacuated from forward areas to the battalion aid station. Here they are evaluated and, if required, are further evacuated to the clearing station of the medical company to be seen by the dental officer assigned to the area support squad. This officer will examine the patient and provide treatment necessary to return him to duty. If the treatment required is beyond the capability available, the patient will be evacuated or referred to the supporting corps area dental support unit or hospital, consistent with the patient's condition and the tactical situation.

Section III. HOSPITAL DENTAL SUPPORT

2-6. General

HOSPITAL dental support is provided by dental personnel organic to the combat support hospital (CSH), table of organization and equipment (TOE) 08705L; the field hospital (FH), TOE 08715L; and the general hospital (GH), TOE 08725L. Under MF2K, the mobile army surgical hospital (MASH), TOE 08765L, has no capability for dental support. Prior to the L-edition TOE, the dental sections organic to the hospitals were different from one type hospital to another. Under the L-edition TOEs, all hospital dental sections are identical.

2-7. Organization

a. The primary mission of hospital dental sections is to minimize loss of life and disability resulting from severe oral and maxillofacial injuries and wounds. When casualty care work load permits, dental resources provide dental treatment to hospital patients and staff. In addition, treatment is provided to patients referred by other dental and medical facilities when required oral and maxillofacial care is beyond the capability of the referring facility.

b. All three types of hospitals with organic dental capabilities (CSH, FH, and GH) are organized under the modular concept. Each has a hospital unit, base (HUB) and one or two additional hospital components. A CSH has an additional hospital unit, surgical (HUS). A field hospital has an additional hospital unit, holding (HUH). A general hospital has an additional HUS and an additional hospital unit, medical (HUM).

c. The dental capability of all three hospitals is found in the HUB and consists of four personnel—

- An oral surgeon (MAJ 63N).
- A comprehensive dental officer (CPT 63B).
- A preventive dentistry specialist (SGT 91E20X2).
- A dental specialist (91 E10/91E20).

d. The maxillofacial surgery capability in these hospitals can be augmented by attaching a medical team, head and neck surgery, TOE 08527LA. This team includes an oral surgeon (MAJ 63N). As with other units under the modular concept, the dental sections of the different hospitals are interchangeable. Significant pieces of equipment in the dental section of these Deployable Medical Systems (DEPMEDS) -equipped hospitals include—

- A dental hygiene materiel set.
- Two hospital dentistry materiel sets.
- A dental x-ray set.
- Three chair and stool units with lights.
- Three treatment units and compressors.
- Supporting items of equipment.

Section IV. AREA DENTAL SUPPORT

2-8. General

AREA dental support is provided by dental personnel and equipment organized into dental service units capable of providing all categories of dental care up to and including maintaining care. These units are the medical company (dental service), TOE 08478L; medical detachment (dental service), TOE 08479L; and medical team (prosthodontics), TOE 08588L. They are assigned to and under the command and control of the medical battalion (dental service), TOE 08476L (Figure 2-l).

As the name suggests, area dental support is provided within a designated geographic area of responsibility. However, within this area of responsibility, area dental support units may be tasked to provide direct support (DS) to unit or hospital dental support elements. They may also be tasked to reconstitute unit dental support modules with like modules within their own unit. Area dental support represents a major share of the dental capability within the TO. The remainder of this manual will focus primarily on area dental support and the units which provide it.

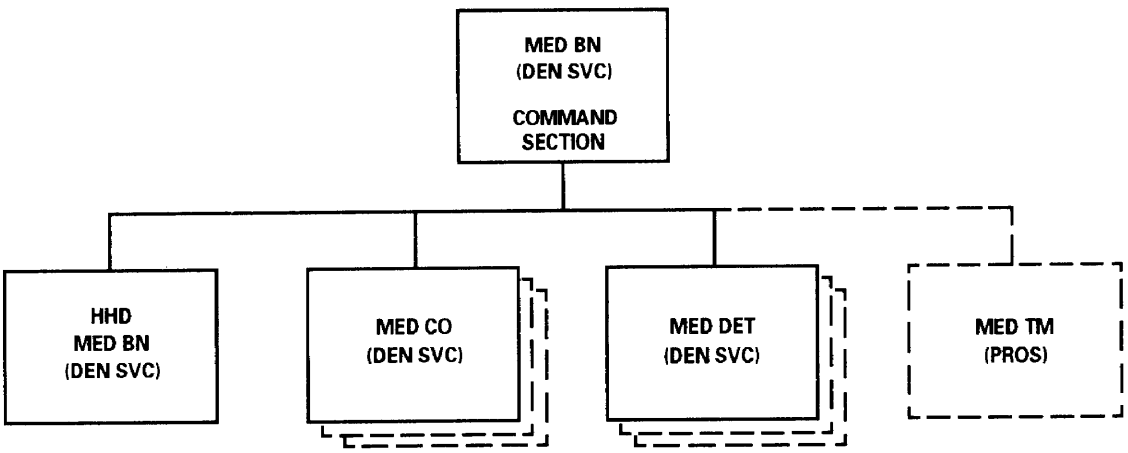

Figure 2-1. Medical battalion (dental service).

2-9. Headquarters and Headquarters Detachment, Medical Battalion (Dental Service) TOE 08476L

The headquarters and headquarters detachment (HHD) of the medical battalion (dental service) is the MF2K equivalent to the H-edition TOE unit, team AI, dental service headquarters. It is almost identical in size and capability.

a. Organization. The HHD is composed of three officers and seven enlisted members organized into two sections (Figure 2-l). The command section (two officers and one enlisted) has the commander (COL 63R), the executive officer (MAJ 67H), and the battalion's senior dental noncommissioned officer (NCO) (SGM 91E). The operations/administration section is composed of the medical operations officer (CPT 67H); the battalion nuclear, biological, and chemical (NBC) NCO (SFC 54B); a medical equipment repairer/supervisor (SSG 35U); the battalion personnel services NCO (SSG 75B); a medical supply sergeant (SGT 76J); the detachment clerk (SPC 75B); and a patient administration specialist (SPC 71G).

b. Mission. The HHD provides command and control to assigned and attached dental organizations. It also provides administrative, logistics, and personnel support to the headquarters and technical guidance to subordinate units on medical equipment maintenance and Class VIII supply.

c. Assignment. This unit is assigned to a medical command, TOE 08611L; medical brigade, TOE 08422L; or medical group, TOE 08432L.

d. Capabilities. This unit provides—

(1) Command and control of three to eight assigned or attached dental units.

(2) Allocation of dental resources (personnel and equipment) to ensure adequacy of dental service to all units within the assigned area of responsibility.

(3) Technical expertise, coordination, and support to subordinate units for accomplishing their medical equipment maintenance and Class VIII supply.

(4) Current information concerning the dental aspects of the combat service support (CSS) situation to higher headquarters.

e. Basis of Allocation. One per three to eight subordinate dental service organizations.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-10. Medical Company (Dental Service), TOE 08478L

The medical company (dental service) is the MF2K equivalent to the H-edition TOE unit, team HA, dental service detachment. It is almost identical in size and capability.

a. Organization. The medical company (dental service) has 16 officers and 44 enlisted members organized into four sections (Figure 2-2).

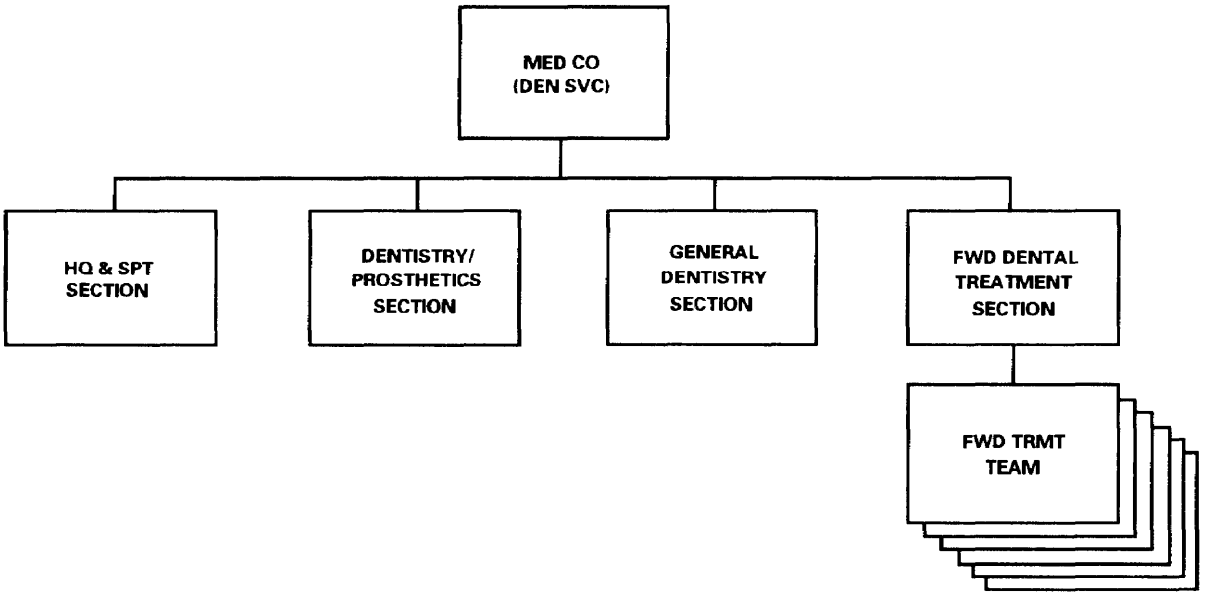

Figure 2-2. Medical company (dental service).

(1) The headquarters and support section (2 officers and 14 enlisted) is composed of the commander (LTC 63R), the executive officer (CPT 67B), and the company's senior NCO (MSG 91E), along with support personnel. These support personnel specialize in NBC operations; unit supply; health service logistics; administration; and automotive, power generation, and medical equipment maintenance. A cook is assigned, but as the company does not have the capability for independent field feeding, the cook is generally attached to the supporting field feeding facility.

(2) The dentistry/prosthetics section has a prosthodontist (63F) and three general dental officers (63A), a dental facility NCO (9lE), preventive dental specialists (91EX2), dental laboratory personnel (42D), and supporting dental specialists (91E). The medical company (dental service) commander also acts as chief of the dentistry/prosthetics section.

(3) The general dentistry section has a comprehensive dental officer as chief, three general dental officers, a dental facility NCO, preventive dental specialists, and supporting dental specialists.

(4) The forward dental treatment section is organized into six independent dental modules with organic power and transportation.

b. Mission. This unit provides emergency, sustaining, and maintaining dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L.

d. Capabilities. This unit provides maintaining care, including prosthodontic specialty care, for 20,000 troops, or sustaining care for 30,000 troops on an area support basis. It is composed of from one to eight field dental treatment facilities (DTFs) consisting of one or two base DTFs providing maintaining care, and up to six dental treatment modules which can reinforce or reconstitute the division dental modules when necessary, or provide sustaining care for small or forward troop concentrations. The unit also provides unit maintenance of organic equipment for the HHD, medical battalion (dental service), TOE 08476L. It is capable of augmenting the advanced trauma management (ATM) capabilities of other medical treatment facilities (MTFs) during mass casualty situations.

e. Basis of Allocation. One per 20,000 troops supported.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-11. Medical Detachment (Dental Service), TOE 08479L

The medical detachment (dental service) is the MF2K equivalent to the H-edition TOE unit, team HB, dental service augmentation, general dentistry; however, it is larger and has much greater capability.

a. Organization. The medical detachment (dental service) has 6 officers and 22 enlisted members organized into three sections (Figure 2-3).

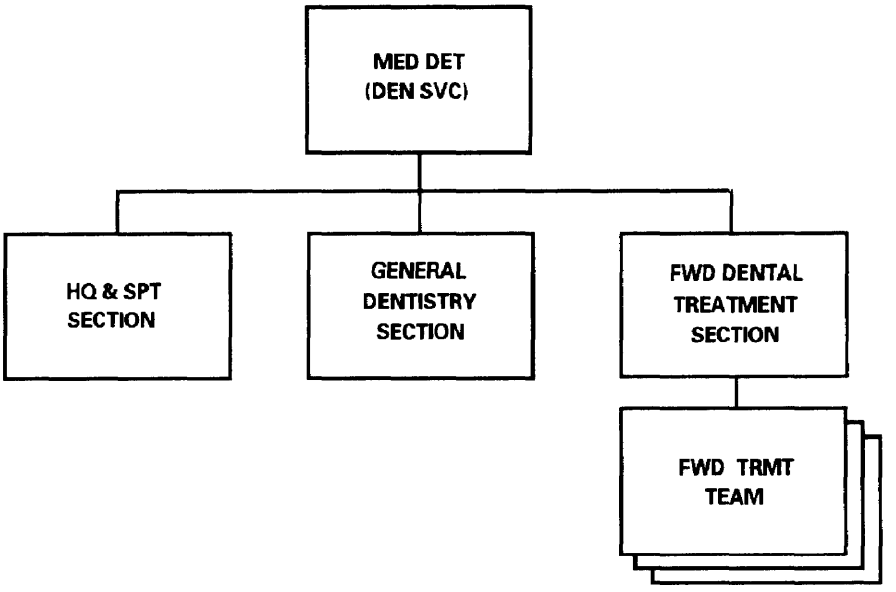

Figure 2-3. Medical detachment (dental service).

(1) The headquarters and support section (1 officer and 10 enlisted members) is roughly similar to that of the company, but smaller in size. The commander is a MAJ (63B) and the chief dental NCO is an SFC (91E). There is no executive officer. This section includes personnel for administration; health service logistics; and automotive, power generation, and medical equipment maintenance; but no field feeding capability. The detachment has no assigned cook or unit supply NCO.

(2) The general dentistry section has the unit commander as chief, two general dental officers, a facility NCO, preventive dental specialists, and supporting dental specialists.

(3) The forward dental treatment section is organized into three independent dental modules with organic power and transportation.

b. Mission. This unit provides emergency, sustaining, and maintaining dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L.

d. Capabilities. This unit provides maintaining care for 8,000 troops, or sustaining care for 12,000 troops on an area basis. It is composed of from one to four field DTFs. These consist of a base DTF providing maintaining care and up to three dental treatment modules to reinforce or reconstitute the division dental modules when necessary, or provide sustaining care for small or forward troop concentrations. The unit is capable of augmenting the ATM capabilities of other MTFs during mass casualty situations.

e. Basis of Allocation. One per 8,000 troops.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-12. Medical Team (Prosthodontics), TOE 08588L

The medical team (prosthodontics) is the MF2K equivalent to the H-edition TOE unit, team HC, dental service augmentation, removable prosthodontics; and team HD, dental service augmentation, fixed prosthodontics. It is about the same size and has similar capabilities; however, it incorporates the consolidation of the removable and fixed prosthodontics specialties (63F).

a. Organization. The medical team (prosthodontics) is composed of a commander (prosthodontist) and four enlisted members, including a dental laboratory NCO, two dental laboratory specialists, and one dental specialist.

b. Mission. This unit provides additional prosthodontic dental support when required by augmenting existing dental and hospital organizations.

c. Assignment. This unit is assigned to the medical brigade (CZ) or medical brigade (COMMZ) with further attachment to a medical battalion (dental service).

d. Capabilities. This unit provides additional fixed and removable prosthodontics support for up to 40,000 troops.

e. Basis of Allocation. As required, based on stated capabilities.

f. Mobility. This unit is capable of transporting 33 percent of its personnel and equipment in a single lift using organic vehicles.

Section V. DENTAL STAFF

2-13. General

Coordination of the collective efforts of unit, hospital, and area dental support activities with the overall HSS operation is accomplished through dental representation on appropriate command and control staffs, usually in the form of a command dental surgeon. The dental surgeon is a special staff officer

under the coordinating staff supervision of the Adjutant (Sl)/Assistant Chief of Staff (Personnel) (Gl). In the medical brigade, the dental surgeon is a separate TOE position. In divisions, this position is filled by the comprehensive dental officer assigned to the main support battalion of the division support command (DISCOM). A dental unit commander who also serves as dental surgeon is described as being "dual-hatted." In some cases, the dental surgeon position is not clearly identified and becomes an ad hoc arrangement. In all of these cases, the dental surgeon works closely with the command surgeon to accomplish his mission. Staff advocacy is a critical element in the development of a coordinated dental service support system throughout the TO. Chapter 5—Command, Control, and Communications—discusses staff functions in much greater detail.

2-14. Responsibilities

a. The dental staff officer provides input to the commander on policy, procedures, and plans that concern oral health and dental care. He prepares the dental estimate and assists in preparing the dental portion of the HSS operation plan (refer to FM 8-55 for information concerning the preparation of HSS estimates and plans). He assists in writing the dental support portion of operation orders (OPORDs). He provides technical guidance on dental matters to subordinate dental resources. He monitors the oral health of the supported population, the readiness of unit dental assets, and the tactical and strategic situation of supported units. He also assesses HSS plans to determine dental resource requirements. Specific duties may include surveillance of—

(1) The oral health and dental readiness of supported units.

(2) Severe oral and maxillofacial surgery cases in hospitals.

(3) Status of dental resources in the area of responsibility.

(4) Operational requirements of supported troops (for example, number and types of units supported or in the area of responsibility; number of troops in supported units or area of responsibility; tactical and strategic situation; location and distribution of supported units; and expressed needs of commanders).

(5) The provision of dental services to enemy prisoners of war (EPW), refugees, and others.

b. The dental staff officer also serves as advisor to the commander on dental matters. On the basis of the information from surveillance, he makes recommendations concerning oral health and dental delivery for plans, OPORDs, and policy.

2-15. Dental Staff Officer Positions

a. Division. The senior dental officer in a division is assigned to the main support battalion. In addition to his patient care responsibilities, he acts as the division dental surgeon and exercises technical supervision over the dental assets in the division forward support battalions. Dental officers in the forward support battalions serve as dental surgeon to the supported maneuver brigades.

b. Separate Brigades, Armored Cavalry Regiments, and Special Forces Groups. The dental officer in the medical element of these units also serves as dental surgeon for the parent unit.

c. Medical Brigade (Corps: TOE 08422L1; COMMZ: TOE 08422L2). A dental surgeon (COL 63R) is located in the command section. He exercises technical control over dental assets in hospitals and dental units subordinate to the medical brigade. Dental surgeons of corps medical brigades are dual-hatted as the corps dental surgeon and provide technical supervision for unit-level dental support (in divisions, separate brigades, and ACRs) as well as for dental assets assigned within the brigade. The medical brigade dental surgeon is complemented by a senior dental NCO (MSG 91E50) assigned to the security, plans, and operations section.

d. Medical Command (TOE 08611 L). There are three dental staff officers in the headquarters company.

(1) The medical command (MEDCOM) dental surgeon (BG) establishes and disseminates

Army theater policy on dental matters. He exercises technical control over all dental units in the TO through the medical brigade dental surgeons. He directs the dental service element of the headquarters and provides dental staff support to the MEDCOM commander.

(2) The MEDCOM assistant dental surgeon (COL 63R) is located in the dental service element of the headquarters. He assists the MEDCOM dental surgeon by recommending policies and procedures and providing dental coordination with other staff elements.

(3) The MEDCOM preventive dentistry officer (LTC 63H) supports the MEDCOM dental surgeon and assistant dental surgeon in all staff actions. Specific duties include—

- Providing oral health surveillance information in support of policy and procedure development.
- Developing plans and orders concerning oral fitness and preventive dentistry programs.
- Recommending treatment policies.
- Developing programs for dental support of humanitarian and civic action operations.

CHAPTER 3

FIELD DENTISTRY

Section I. INTRODUCTION

3-1. General

The practice of dentistry in the TO requires employment of the same fundamental skills and standards of practice as would be employed in a garrison clinic. The basic principles learned by dental officers in dental school and graduate education, and by enlisted personnel during the course of their military occupational specialty (MOS) training are applicable in the field environment. The limitations imposed by availability of equipment and the demands of the tactical situation require flexibility and expediency on the part of both the dentist and ancillary personnel. In no case, however, can the basic principles of dentistry be compromised. Dental commanders at all levels must establish a sound quality assurance (QA) plan as described in Appendix B.

3-2. Objective

The primary objective of field dentistry is to RTD the patient as quickly as possible based on the tactical situation, while at the same time attending to his dental needs. In the case of troops in contact, the situation may permit only temporary alleviation of pain and suffering. Under less-demanding circumstances, the situation may permit more definitive treatment. In all cases, the practitioner should endeavor to accomplish as much as possible in a single sitting, thus avoiding return visits and subsequent lost duty time. This requirement places a great emphasis on the professional judgment of the practitioner and a need to reconcile patient needs with the tactical situation. Likewise, field DTFs should be organized to accomplish the task at hand consistent with the mission of the supported organization(s).

3-3. Evacuation Versus Referral of Dental Patients

This FM frequently mentions the need to evacuate a dental casualty with the word "evacuate" being used in a very general sense. In reality, there are times when dental patients will require *evacuation* in the doctrinal sense of the word. At other times, there will be a need, depending on the tactical situation, for expeditious RTD after the accomplishment of emergency treatment and subsequent *referral* for a higher level of treatment (sustaining or maintaining) when the tactical situation permits. When to evacuate, when to RTD, and when to refer are matters of clinical judgment based on patient presentation and beyond the scope of this manual. It is left to the reader, therefore, to make the proper interpretation of the generic term "evacuate" based on the situation to which it might apply.

a. *Evacuation* — transfer of a patient from a lower echelon of care to a higher echelon at either an MTF or a DTF using medical evacuation assets and established evacuation procedures.

b. *Referral* — referral of a patient from a DTF for follow-up treatment when the tactical situation permits. Generally, transportation to a referral DTF is the responsibility of the patient's unit. Use of medical evacuation assets may be feasible, however, when the situation permits transfer of routine or convenience category patients.

c. *Return to Duty* — assumes that a soldier is capable of performing his mission in an austere combat environment. Soldiers who cannot be placed in a fully capable condition, or who require pharmaceutical regimens which impair performance, should be evacuated to the next higher echelon of care rather than RTD.

Section II. FIELD DENTAL EQUIPMENT

3-4. General

Field dental equipment is organized into dental equipment sets (DES) and dental instrument and supply sets (DISS). In the DEPMEDS-equipped hospitals, the dental staff is equipped with DEPMEDS dental materiel sets (DMS) and additional supporting items. Most modernized DES are organized to support

a specific category of dental care (emergency, sustaining, and/or maintaining). Consistent with the earlier definition of these categories, each set has the capability for subordinate categories of care. The DES are assigned to the TOE of medical/dental organizations consistent with their mission.

3-5. Design

Dental sets are designed according to the category of dental care they are expected to support; however, other important factors are also considered. Mobility factors such as weight, volume, and low power demand were important considerations for design of sets intended for use in forward organizations, and a lesser consideration in those units to be employed further to the rear. Standardization of the materiel within the sets is consistent with Army policy and eases Class VIII resupply. Each set provides dental equipment and materials necessary for accomplishment of those dental procedures normally associated with the category of dental care to be supported.

3-6. Description

The unit's TOE shows the type and quantity of dental sets authorized. Current authorized contents for each set are listed in the DA supply catalog for that particular set. Recommended changes to DES and DISS can be submitted through command channels on DA Form 2028 to the Commander, AMEDDC&S, ATTN: HSMC-FCO-S, Fort Sam Houston, Texas 78234-6100.

a. Emergency Care. Every dental officer in a TOE position, with the exception of those in staff positions, is assigned a DISS, emergency treatment, field. This small (13 lb, 1 cu ft), dental emergency kit is contained in a hand-carried medical aid bag. It contains the bare minimum of instruments and materials for simple extractions and expedient temporary restorations. Key in this kit is a battery-operated handpiece which allows the dental officer to open an infected tooth, prepare a cavity for temporary restoration, or section a tooth for extraction. The DISS, emergency treatment, field, is intended for use when the situation does not permit setup of the dental officer's standard equipment.

b. Sustaining Care. The DES, designed to provide sustaining care, is the backbone of the dental module described in Chapters 1 and 2. This equipment is light in weight, compact, rugged, has limited power demand, and is highly mobile. It represents the latest in dental technology. Authorized to units with a unit dental support mission and the forward treatment sections of the medical company (dental service) and medical detachment (dental service), it consists of—

- *Dental support, DES.* This set, found in both maintaining care sections and the dental modules providing sustaining care, provides necessary support items including: sterilizer, sink, laboratory table, oxygen, and an emergency medical resuscitation kit.

- *Lightweight operating and treatment unit.* This unit has a self-contained compressor and suction unit and is supported by a lightweight field dental chair and operating light. It replaces the heavier operating and treatment unit and separate compressor currently authorized in the dental modules.

- *Operatory, field, lightweight, DES.* This set contains instruments and materials to accomplish basic restorative dental procedures, extractions, cleanings, and stabilization of minor oral and maxillofacial injuries. It replaces the heavier DES, general dentistry, currently authorized in the dental modules.

- *Hand-held dental x-ray.* This high-technology device supported by self-developing dental film replaces the much heavier DES, x-ray, and x-ray apparatus currently authorized in the dental modules.

- *Emergency denture repair, DISS.* This small set provides basic materials for expedient denture repairs.

c. Maintaining Care. Maintaining care basically provides for the full range of dental service normally associated with general dentistry including operative dentistry, oral surgery, endodontics, periodontics, prosthodontics, and dental prophylaxis. Units with a maintaining care mission are equipped accordingly. The major equipment items of the maintaining care DES are much the same as were authorized in the old H-edition TOES; however, the

sets have been significantly upgraded and modernized. Capability consistent with maintaining care requirements, sometimes at the expense of mobility, was a major consideration in the design of the maintaining care sets. Maintaining care DES are assigned to the dentistry/prosthetics and general dentistry sections of the medical company (dental service) and to the general dentistry section of the medical detachment (dental service). The DMS found in the DEPMEDS-equipped hospitals are much the same as the maintaining care DES. Maintaining care DES include-

- *Dental support, DES.* This set, described in paragraph *3-6b* above, provides necessary support items.

- *General dentistry, DES.* This set includes the basic instruments and materials to accomplish most restorative dental procedures. Associated with this set are a dental chair and stool unit, an ADEC operating and treatment unit, a separate compressor, and a conventional dental light.

- *Dental hygiene, field, DES.* This set includes those instruments and materials necessary for the provision of preventive dentistry services by the preventive dental specialist, 91EX2. It has the same associated items of equipment as described above for the general dentistry, DES.

- *Maintaining care, augmentation, DES.* This set contains instruments and materials necessary to augment the general dentistry, DES for the provision of endodontics, periodontics, and oral surgical treatment. It is authorized on the basis of one each for the dentistry/prosthetics and general dentistry sections of the medical company (dental service) and one each for the general dentistry section of the medical detachment (dental service).

- *Dental x-ray, field, DES.* This modernized set, along with its associated 70 kilovolt (kv), 7 milliampere (ma) x-ray apparatus provides standard dental x-ray capability to the dentistry/prosthetics and general dentistry sections of dental units.

- *Prosthodontics, DES.* This set provides clinical and laboratory items necessary to support fixed and removable prosthodontic procedures in the dentistry/prosthetics section of the medical company (dental service) and the medical team (prosthodontics). It will be described in detail in a later discussion of prosthodontics in the TO. The prosthodontics DES must be used in conjunction with the general dentistry, DES.

3-7. Deployable Medical Systems/Hospital Dentistry

The DEPMEDS initiative is ajoint-service response to a congressional mandate to standardize Echelons III and IV hospital medical equipment throughout the theater. The DEPMEDS is managed by the Defense Medical Standardization Board under the direction of a joint-service committee made up of a general officer representing each service. Dental interests are represented at the joint-service colonel level.

a. Patient-Condition Based. The configuration of both DEPMEDS medical materiel sets (MMS) and DMS is based on a listing of patient conditions determined from sophisticated modeling. Medical materiel sets and DMS were designed based on treatment protocols (codes) developed by panels of consultants representing each service to treat the above patient conditions. Medical materiel sets and DMS are designed only to treat specific patient conditions based on these standardized treatment protocols.

b. Dental Materiel Sets. The DEPMEDS DMS, hospital dentistry and dental x-ray, along with other supporting DMS and equipment found in the hospital dental module, provide a maintaining care capability for the dental offcers assigned to the module. With the exception of greater oral and maxillofacial capability, there is little difference in the DES, general dentistry, and the DEPMEDS hospital dentistry set. The same is true for the x-ray set. The major supporting items of equipment (compressors, chair, x-ray, and so forth) are exactly the same for each.

c. Oral and Maxillofacial Surgery. Current DEPMEDS configuration requires the hospital oral surgeon to access any or all of three MMS and the DMS, hospital dentistry, to treat maxillofacial patients. The three MMS are

- Operating Room.
- Ear, Nose, and Throat Augmentation.
- Central Materiel Service COMMZ Augmentation.

Section III. DENTAL TREATMENT FACILITY ORGANIZATION

3-8. General

Dental treatment assets are organized into DTFs for the provision of dental service. The DTF may consist of a single dental treatment module, or a collection of dental assets collocated in a single facility. In most cases the organization of the DTF closely follows the TOE; however, DTFs may also be task-organized by the commander consistent with the mission. The dentistry/prosthetics and general dentistry sections, though originally designed to function as a collocated DTF, may be further split into self-sufficient DTFs using organic equipment.

3-9. Site Selection for the Dental Treatment Facility

Site selection is based on the geographic location, unit to be supported, and guidance from the base cluster commander and/or the base cluster operations center (BCOC). Other operational considerations for the DTF are the responsibility of the unit commander based on his mission and the tactical situation. These operational considerations are discussed in Chapter 4. Actual site selection is the responsibility of the officer in charge (OIC) of the DTF, determined in concert with the supporting unit. The best host unit for a DTF is a self-sustaining medical unit or MTF. Site selection considerations for the DTF are the same as those for MTF and include—

- Space required.
- Availability of power source if organic generators are not to be used.
- Terrain suitability.
- Accessibility to patients.
- Access to water supply, fuel, and food service facilities.
- Field sanitation and waste disposal.
- Security arrangements and camouflage requirements.
- Availability of medical support.

3-10. Shelter

The practice of dentistry and consideration for its associated materiel requires shelter from the elements and some degree of environmental control. The requirement for concealment of the dental shelter is a matter of unit standing operating procedure (SOP) and may be required by the supporting unit. It is an important consideration in both site selection and the type of shelter used. Selection of the appropriate shelter to fit the situation requires a great deal of flexibility and resourcefulness on the part of the DTF OIC. Dental units and Echelon II medical units with organic dental assets are equipped with tentage and associated environmental support items in accordance with (IAW) the common table of allowances (CTA) of the particular unit. Tentage, however, is not the best form of shelter for the DTF. Possibilities for shelter of the DTF are shown below in their order of desirability.

a. Established Dental Clinic. Some current TO plans call for the use of established dental clinics. Though the most desirable shelter option, it is the least likely.

b. Semipermanent Construction. Circumstances, particularly in long-term peacekeeping operations, may permit semipermanent DTF construction.

c. Deployable Medical Systems Hospital. The dental assets assigned to the DEPMEDS-equipped hospitals have allocated space; however, the tactical situation may permit occupation of unused space within the hospital by a supporting or collocated DTF. This option is also highly desirable, but not very likely, particularly during periods of high-tempo operations.

d. Buildings of Opportunity. Whenever possible, DTFs should be located in suitable buildings of opportunity. Though this may present a challenge in the DTF layout, buildings of opportunity offer obvious advantages as opposed to using tentage.

e. Tentage. Tentage, thoughtless desirable, is the most likely shelter option available for DTF location, particularly for forward deployed DTFs and during high-tempo operations. Tentage is the option most amenable to camouflage and concealment and offers the most flexibility in site selection.

f. Expedient Shelter. Expedient shelter is the most likely location for the provision of emergency care—

- While on the move between locations and dental equipment is not available.
- During humanitarian assistance and civic action operations.

It maybe as simple as a shaded area or the tailgate of a truck.

3-11. Power Generation and Distribution

Layout of a DTF is largely determined by the availability of electrical power and power-distribution equipment. Dental resources assigned to Echelon II medical units and Echelons III and IV hospitals are incorporated into the power-distribution plan of their unit. Dental units are equipped with power generation and distribution equipment. Tents are easily arranged to satisfy the constraints placed on the DTF by length of power cables; however, an effective power-distribution scheme when using buildings of opportunity can often challenge the ingenuity of the DTF staff. The use of nonorganic power sources is a desirable economy; however, care must be taken when using other power sources, particularly with the maintaining care equipment which has high-amperage (amp) requirements. As always, safety is a paramount concern and alternative power sources should be carefully evaluated before using them. The power-generation equipment repairer (52D) assigned to the dental unit is the best source of advice on this matter.

a. Power-Generation Equipment. The dentistry/prosthetics and general dentistry sections of the medical company (dental service) and the general dentistry section of the medical detachment (dental service) are each equipped with two 15 kilowatt (kw), trailer-mounted, diesel generators. The forward treatment teams of the forward treatment sections each have an organic 5 kw, skid-mounted, diesel generator. These generators provide adequate electrical power for each section. Power requirements for the dental modules in the forward treatment sections will be reduced considerably upon completion of fielding of the lightweight treatment unit and hand-held x-ray, thus allowing assignment of a smaller, lighter generator in the future.

b. Power Distribution. Power distribution and lighting capability, which has long been a serious deficiency in dental units, will be greatly enhanced with the completed fielding of the Distribution Illumination System, Electrical (DISE). The DISE configuration for dental units consists of 60 amp distribution boxes and feeder cables along with an appropriate number of utility receptacles and lighting systems for each section.

c. Power Operations in the Dental Treatment Facilities. Dental units have no dedicated power-generation equipment operators; therefore, operator responsibilities must be assigned to selected personnel as an additional duty. Army regulations require licensure of power-generation equipment operators. In dental units, responsibility for licensure is delegated to the unit's power-generation equipment repairer who, along with the unit's medical equipment repairer, is also a source of technical advice. Technical manuals on the power generation and dental equipment used in the DTF provide mandatory guidelines for operation and operator care and maintenance, and must be readily available. Electrical power usage represents a significant safety hazard in the DTF and must be covered in both the DTF clinical standing operating procedure (CSOP) and the unit's tactical standing operating procedure (TSOP).

3-12. Dental Treatment Facilities Internal Design and Layout

Once a site and type of shelter have been selected for the DTF, actual layout of the facility and internal

design are largely determined by the number of shelters to be used, power-distribution capability and equipment, and staff assigned. Within these constraints, layout and internal design become a matter of preference and DTF staff ingenuity, consistent with operational considerations and unit TSOP. Shown below are suggested layouts and internal designs for DTFs. Illustrations use the organic resources and authorized CTA tentage of the dentistry/prosthetics section, the general dentistry sections, and a forward treatment team of the forward treatment section of the medical company (dental service) and medical detachment (dental service). A suggested power-distribution scheme is shown in each diagram. Refer to Technical Manual (TM) 5-6150-226-13&P for detailed guidance on electrical power-distribution systems, maintenance procedures, and parts.

a. Dentistry/Prosthetics Section, Medical Company (Dental Service). Figure 3-1 illustrates a proposed layout and internal design for the dentistry/prosthetics section of the medical company (dental service). Unique to this section is the prosthetics laboratory. Note in this illustration, as in others, the isolated location of the dental x-ray which is another significant safety hazard in the DTF. X-ray operation is covered later in this chapter and again in Appendix C.

b. General Dentistry Section, Medical Company (Dental Service). Figure 3-2 illustrates a proposed layout and internal design for the general dentistry section of the medical company (dental service).

c. General Dentistry Section, Medical Detachment (Dental Service). Figure 3-3 illustrates a proposed layout and internal design for the general dentistry section of the medical detachment (dental service). It is similar to the layout and design of the medical company (dental service), but smaller in terms of staffing size.

d. Forward Treatment Team, Forward Treatment Section. Figure 3-4 illustrates a proposed layout and internal design for a forward treatment team organic to both the medical company (dental service) and medical detachment (dental service). The illustration shows the soon to be fielded hand-held dental x-ray, not the DES x-ray currently authorized in these teams.

e. Echelon II and Echelons III and IV Hospital Dental Treatment Facilities. Layout and design of the DTFs in hospitals and medical companies are dependent upon the overall plan of the parent unit.