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ARMY MEDICAL FIELD FEEDING OPERATIONS

HEADQUARTERS, DEPARTMENT OF THE ARMY

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PREFACE

This field manual (FM) provides information and guidance to hospital nutrition care personnel and commanders on Army Medical Feeding Operations in a table of organization and equipment (TOE) hospital. It describes nutritional care section actions, personnel, equipment, guidelines for nutrition support, and health promotion and nutrition education.

Use of trade or brand names in this publication is for illustrative purposes only, and does not imply endorsement by the Department of Defense (DOD).

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Unless otherwise stated, whenever the masculine gender is used, both men and women are included.

This publication is in consonance with the following North Atlantic Treaty Organization (NATO) Standardization Agreements (STANAGs) and American, British, Canadian, and Australian (ABCA) Quadripartite Standardization Agreements (QSTAGs):

TITLE	STANAG	QSTAG
Minimum Requirements for Water Potability and Long Term Use		245
Minimum Standards of Water Potability in Emergency Situations	2136	
Emergency Supply of Water in War	2885	
Survival, Emergency and Individual Combat Rations—Nutritional Values and Packaging	2937	
Essential Field Sanitary Requirements	2982	889

CHAPTER 1

NUTRITION CARE SECTION PREPARATION**1-1. Mission**

a. The nutrition care section provides services as part of the Army deployable hospital systems. Hospital units organized in TOE structures under the Medical Force 2000 (MF2K) concept consist of the corps combat support hospital (CSH) and the communications zone field hospital and general hospital. A new single hospital system (CSH) has been designed under the Medical Reengineering Initiative (MRI) for hospital support in the corps and communications zone. The MRI hospital system will replace the MF2K hospital system. The configuration of the MRI CSH will vary depending on the number of troops supported and the type of deployment. A nutrition care section is organic to each hospital system configuration under MF2K and MRI. This section is responsible for providing hospital nutrition care services, (meal preparation and service to patients and staff, dietetic planning, patient education, advising the commander on health and nutrition, and the theater health promotion training program).

b. In stability operations and support operations—

- Contract food service support may be procured for the deployed force. When the contract includes feeding the hospital staff and patients, only one dietitian and one or two hospital food service specialists, may be deployed. However, if the mission requires support to a large population, the full nutrition care section may be deployed. Regardless of the number of personnel deployed, the nutrition care personnel are responsible for ensuring that hospital nutrition care services are provided (dietetic planning, patient education, advising the commander on health and nutrition, and the theater health promotion training program). They are also responsible for ensuring that the correct patient diets and nourishments are provided by the contractor at the right times. To ensure that patient needs are met, a process is developed (with the contractor, the nutrition care section, and nursing services working together) for ordering and delivering patient meals and nourishments.

- Nutrition care services may involve feeding a healthy population or working with a host nation (HN) malnourished population. Nutrition care services may be provided directly to the HN population through nutrition assessment, therapeutic feeding, and population-based feeding programs. Indirect nutrition care assistance includes serving as a consultant to the HN medical education system in the development of nutrition programs for the HN population.

1-2. Deployment Actions

a. The nutrition care section must maintain the readiness of all section equipment and supplies for deployments. The section must continually train in preparation for deployments. Training may be conducted in the section, in a classroom, or during field training exercises. The key is to have all personnel trained to proficiency in their specialties and in their common soldiering tasks. Professional officer filler system (PROFIS) personnel must be included in the section training activities. Even if the PROFIS personnel cannot actively participate in the section training at the installation, they must be provided copies of all section training schedules, lesson plans, outlines, references, and other pertinent training material to ensure that they are prepared to perform their duties in the section. See Appendix A for additional information on training.

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b. During the predeployment phase, the nutrition care section staff must ensure that they are prepared for the mission. Figure 1-1 provides a checklist to assist the section’s staff in planning and coordinating their predeployment actions.

ACTIONS REQUIRED	COMPLETED
Receive mission requirements from the hospital commander.	
Ensure staff members are qualified at the skill levels needed.	
Conduct patient play scenarios with nutrition screening and assessment, modified diet preparation, and patient food delivery and service.	
Update the section SOPs.	
Ensure all equipment is operable and repair parts are on hand.	
Rehearse ARTEP task steps and performance measures.	
Train personnel using individual task list.	
Rehearse movement procedures for nutrition care section for deployment.	
Coordinate nutrition care operations/support with the following:	
PROFIS Dietitian.	
Company Commander and First Sergeant.	
Hospital Commander and hospital Layout Staking Team.	
Supply Officer/Supply Sergeant.	
Training NCO.	
Publications NCO.	
Movement Control Officer.	
Motor Pool Sergeant.	
Chief Nurse and Wardmaster.	
Supporting Class I activity.	

Figure 1-1. Nutrition care section preparation checklist.

c. During the deployment, the nutrition care section provides staff and patient feeding activities or ensures that feeding is accomplished as required by the contractor. They ensure that food and medical diet supplements are requisitioned, received, stored, and prepared in a sanitary manner. They provide nutrition and health promotion education programs for supported organizations, as well as, for hospital staff and patients. They also serve as consultants to the command on nutrition issues.

d. Upon redeployment the section cleans, repairs, or requests replacement items and repair parts for unserviceable equipment, obtains new stocks of expendable supplies, and stores supplies and equipment for the next deployment. They continue to provide the required nutrition and health promotion education programs, as directed.

1-3. Administrative Procedures

a. Establish a reference library for the section of all essential publications and blank forms. The section is authorized a “Nutrition Care Book Set” that must be kept up to date. The set issued to the section may not have current editions of publications. Therefore, it is critical that new and revised publications be obtained and placed in the set, as they are available (see DA Pam 25-30 and references in this publication). Publications are available on the Reimer Digital Library at website <http://www.adtdl.army.mil/> or the US Army Publishing Agency at website: <http://www.usapa.army.mil/>.

b. The section develops and updates, as necessary, standing operating procedures (SOPs). Several SOPs may be needed to ensure that personnel have guidance on how the section will conduct operations. Nutrition care section SOPs describe how the section provides support. They should describe any special supply requirements, (such as procedures for securing subsistence, supplies, funds, and equipment). See Appendix B for SOP topics that should be included in the nutrition care section SOPs.

c. Establish and maintain records and logs that reflect unit activities such as, records of training; equipment and maintenance; ration accounting; and patient meals served.

d. Prepare and submit daily reports as directed or in accordance with the command SOP.

e. Prepare after action reports on the deployment/training exercise. See Appendix C for a sample after action report format.

CHAPTER 2

NUTRITION CARE PERSONNEL**2-1. Introduction**

This chapter lists nutrition care personnel requirements. Each unit has a TOE that provides the personnel requirements. It is important that the chief and noncommissioned officer in charge (NCOIC) work together to identify personnel shortages and request fills in anticipation of short notice deployments. Some personnel may be PROFIS to your unit. The chief and NCOIC must ensure that the PROFIS roster for their section is current. Any section positions, including PROFIS, not filled must be reported to the chief, administrative services for replacements.

2-2. Organic Personnel Requirements

The specific personnel requirements for the nutrition care sections of the MF2K and MRI hospitals are based on the type of parent unit. The MF2K hospitals are being converted to MRI configured CSHs. The MRI CSH will consist of two types: The CSH Echelons Above Corps (EAC) and the CSH (Corps). Each CSH can provide hospitalization for up to 248 patients and is organized under two companies, a 164-bed hospital company and an 84-bed hospital company (see FM 4-02.10 for details on the CSH). The nutrition care personnel requirements for each type of CSH are as follows:

a. The 248-bed CSH (EAC) cannot operate as two separate hospital companies (an 84-bed company and a 184-bed company). Because the CSH (EAC) cannot operate as two companies, the entire nutrition care section is assigned to the 84-bed hospital company with 2 officers and 18 enlisted (see Figure 2-1).

Rank	Title	Number
LTC	Chief	1
1LT	Dietitian	1
SFC	NCOIC	1
SSG	Nutrition Care Sergeant	1
SGT	Nutrition Care Sergeant	3
SPC	Nutrition Care Specialist	6
PFC	Nutrition Care Specialist	7

Figure 2-1. Echelon above corps combat support hospital nutrition care section staff.

b. The 248-bed CSH (Corps) can operate as two separate hospital companies. Each company has a nutrition care section (one in the 164-bed hospital company and one in the 84-bed hospital company). The 84-bed hospital company can operate as the 84-bed or forward deploy a functional 44-bed hospital. When the hospital forward deploys a 44-bed hospital, the entire nutrition care section (personnel and equipment)

deploys with it. There are no nutrition care personnel or equipment that would be left with the stay behind 40-bed slice. Personnel in the stay behind 40-bed slice must obtain food service support from the 164-bed company or from another unit in the area. The nutrition care section of the 84-bed company has one officer and seven enlisted personnel (see Figure 2-2). The CSH (Corps) 164-bed company has one officer and fifteen enlisted personnel (see Figure 2-3).

Rank	Title	Number
CPT	Chief, Nutrition Care Section	1
SFC	NCOIC, NCS	1
SSG	Nutrition Care Sergeant	1
SGT	Nutrition Care Sergeant	1
SPC	Nutrition Care Specialist	2
PFC	Nutrition Care Specialist	2

Figure 2-2. 84-bed company nutrition care section.

Rank	Title	Number
MAJ	Chief, Nutrition Care Section	1
SFC	NCOIC	1
SSG	Nutrition Care Sergeant	1
SGT	Nutrition Care Sergeant	2
SPC	Nutrition Care Specialist	6
PFC	Nutrition Care Specialist	5

Figure 2-3. 164-bed company nutrition care section.

2-3. Personnel Task Organization

- a. The CSH (EAC) nutrition care section is not staffed to operate split-based.
- b. The CSH (Corps) 248-bed has two nutrition care sections with corresponding chiefs and NCOICs. When operating split-based the two sections are organized on the TOE appropriately. When operating together the sections will combine and task organize according to the number of personnel and rank to perform the mission.

2-4. Staff Responsibilities

- a. The dietitian—

- Formulates policies, develops procedures, and directs and supervises the operation of nutrition care services and the provision of comprehensive nutrition care programs in the deployable hospital.

- Manages medical food preparation and service systems.

- Coordinates and ensures the procurement and receipt of safe, wholesome food items/rations for patients and staff.

- Provides nutrition health promotion programs for the military community and develops and directs nutrition education or dietary intervention programs for the military.

- Assists the physician with patient nutritional assessment and therapeutic dietary intervention.

- Serves as a consultant at all levels of nutrition related health and performance issues, and medical food service operation.

- Develops, implements, and directs nutrition and medical food service education programs for nutrition care specialists and other medical personnel.

b. The nutrition care specialist—

- Performs clinical dietetic functions in the dietary management and treatment of patients and staff.

- Assists in the nutritional assessment and screening of individual patients.

- Assists in the health promotion program activities.

- Prepares and serves modified and regular food items in the management of the nutritional needs of individuals (across the life span and a diversity of people, cultures, and religions in support of the mission), under the supervision of a dietitian or senior NCO.

c. For detailed information on the qualifications and responsibilities of the dietitian and nutrition care specialist see DA Pam 611-21.

2-5. Additional Personnel Requirements

The hospital commander is responsible for providing military personnel for support duties in the nutrition care section. Based on the mission, additional personnel support will be required for sanitation duties and patient food delivery. It is essential that representatives from the nutrition care sections be involved in the initial planning stage of all deployments to ensure nutrition care section requirements are included. The number of personnel needed for support duties will be based on the mission. The soldiers assigned for

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support duties may be unfamiliar with food service sanitation principles and patient food delivery support; therefore, extensive supervision is required. In operations where civilian contracted dining facility attendants are available, the chief and NCOIC will provide the contracting representative with the number of attendants required, a clear statement of work, and shift schedules. Interpreter support and translation of work instructions may be required for the contracted attendants.

2-6. Additional Duties

Based on the unit's mission, nutrition care section personnel may have additional duties that interfere with or disrupt patient feeding requirements. The chief and NCOIC must accurately communicate the section's nutrition care workload to the hospital commander to ensure that the nutrition care section can accomplish its primary mission of feeding the staff and patients. When additional duties interfere with or disrupt patient feeding it must be communicated to the hospital commander.

CHAPTER 3

EQUIPMENT

3-1. Introduction

The hospital TOE lists the authorized nutrition care section equipment. The hospital TOE lists the nomenclatures and quantities of the nutrition care section's equipment. This chapter only discusses the major line items. Common items that are also found in other sections of the CSH such as tentage, communication equipment, and vehicles are not described in this chapter. Regardless of the type of equipment, every piece should have a corresponding technical manual (TM) or manufacturer's instructions that describe its operation, user maintenance, and support maintenance. The TM also lists repair parts and special tools for each item of equipment. The nutrition care section should maintain and deploy with all equipment TMs. All nutrition care section personnel must be familiar with the TMs to ensure that all equipment is maintained and operated properly. The TMs are critical references for training personnel on use and maintenance of the equipment.

3-2. Equipment Systems

The nutrition care section normally conducts operations in a tent extendable, modular, personnel (TEMPER) using standard Army field feeding equipment. The major items of equipment include—

- *Modular field kitchen.*
 - The number of modular field kitchen (MFK) sets authorized by TOE is determined by the number of staff and patients that the specific hospital is required to support. For example the 84-bed CSH (Corps) is authorized 1 MFK; the 164-bed CSH (Corps) is authorized two MFKs; whereas, the 84-bed CSH (EAC) is authorized four MFKs. The reason for the greater numbers authorized in the CSH (EAC) is that they must provide food service for the combined staff and patient load of the 84-bed and the 164-bed CSH (EAC) and the attached medical detachment, minimal care staff and patients. The 164-bed CSH (EAC) is not authorized any MFKs.
 - The MFK is comprised of a two-section TEMPER, a storage rack assembly, an oven assembly, a griddle assembly, a steam table assembly, a heater tank assembly, six modern burner units (MBU), worktables, food containers, and storage cabinets.
 - One MFK with assigned personnel can serve three hot meals per day to 250 staff and patients combined.

NOTE

A containerized kitchen (CK) is under development and will eventually replace the MFK in all units. The CK is a self-contained kitchen on a trailer with multiration preparation and serving capabilities. One each CK will be fielded to hospital company (84-bed and 164-bed) in the CSH (Corps) and two CKs will be fielded to the 84-bed hospital company in the CSH (EAC).

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- *Food sanitation center.*
 - The food sanitation center (FSC) provides the nutrition care section with the capability to clean and sanitize food preparation and serving equipment. The number of centers authorized is dependent upon the staff and patient support requirements. Example, the CSH (Corps) 84-bed is authorized one; where as the CSH (EAC) 84-bed is authorized two.
 - Each FSC is comprised of a two-section TEMPER, storage rack assembly, sink assembly, three MBUs, a drain table, and a worktable.
 - Each FSC can provide the capability to clean and sanitize equipment required to serve 400 personnel.
- *Modern burner unit.* The MBU features modular construction that allows for easy replacement of malfunctioning components. The MBU external dimensions are similar to the M2A Burner, which it replaces. It can be installed into and used with the kitchen and sanitation equipment. The MBU features automated ignition (electrical power required) and uses JP-8 or alternate approved diesel fuel.

CAUTION

When fueling a burner, all burners that are connected and/or within 10 feet of the burner being fueled should be shut down. The MBU can be fueled in the tent but the fuel storage area must be at least 50 feet from all tents, sheltered areas, and vehicles.

- *Food preparation set.* The food preparation set contains additional equipment not found in the MFK necessary to prepare and deliver the therapeutic diets. This set includes blenders, food and beverage containers, and wheeled litters. There are two sets for the CSH (EAC) and one per nutrition care section in the CSH (Corps).
- *Refrigeration.* Each nutrition care section is assigned one 150 cubic foot refrigerator. Depending on the ration delivery schedule, the 150 cubic foot refrigerator may not have enough storage space for all perishable rations. To ensure sufficient refrigeration space is available, the nutrition care chief or NCOIC should request the issue of an 8 x 8 x 20 foot refrigerated container. When a standard 8 x 8 x 20 refrigerated container is not available, a request for contract should be submitted to obtain one, if funds are available.

CHAPTER 4

GUIDELINES FOR NUTRITION SUPPORT**4-1. Normal Nutrition**

a. Normal nutrition and assessment are addressed in the American Dietetic Association's (ADA) *Manual of Clinical Dietetics*, hereafter referred to as the ADA Manual. It is not the intent of this chapter to repeat any of the information from the ADA Manual. This chapter provides other sources of information that enhances the application of the ADA Manual procedures for use in a field setting with limited types of food items available to prepare patient meals.

b. For military dietary reference intakes (MDRI) see AR 40-25. The MDRI is intended for healthy and fit soldiers performing their mission. The MDRI is provided in the currently fielded operational rations. Consuming the daily ration provides soldiers with essential calories, vitamins, and minerals. Appendix D provides an overview of the nutrient functions and sources in operational rations.

4-2. Nutrition and Disease

The medical nutrition therapy for specific conditions and diagnoses are defined in the ADA Manual. This publication provides dietetic modifications, related physiology, examples of food selection, and adequacy of each therapy.

a. Diet Orders. The most common diet orders on a deployment are Regular, High Calorie-High Protein, Clear Liquid, and Full/Blenderized Liquid. Use available rations and medical diet supplements to prepare other therapeutic diets listed in the ADA Manual. Humanitarian assistance deployments will be in support of civilians (ages from infants to the very old) for whom a wide variety of dietetic needs will be required. Thus, health care personnel must be prepared to respond to these complex patient needs. Even in war, nutrition care personnel may be required to respond to situations where the very young and very old require support.

b. Disease and Health Risk. Considering worldwide deployments, it is important to understand the diseases and health risks inherent to each country. The dietary habits of the culture impact on humanitarian support missions. When contracting agents hire local civilians to work in the food service facility, there may be additional health risk to the supported population. Preventive medicine personnel should have detailed reports on endemic/epidemic diseases and possibly dietary habits of local civilians in the deployment area. Invaluable information on diseases, injuries, and nutritional requirements in areas of deployment can be obtained from—

- United States Armed Forces Medical Intelligence Center (AFMIC). Web site: <http://mic.afmic.detrack.army.mil/>.
- United States Army Research Institute of Environmental Medicine (USARIEM). Web site: <http://www.usariem.army.mil/>.
- United States Army Medical Research Institute of Infectious Diseases (USAMRIID). Web site: <http://www.usamriid.army.mil/>.

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- United States Army Center for Health Promotion and Preventive Medicine (CHPPM). Web site: <http://chppm-www.apgea.army.mil/>.
- World Health Organization (WHO). Web site: <http://www.who.int/en/>.
- The Centers for Disease Control and Prevention (CDC). Web site: <http://www.cdc.gov/>.
- Center for Army Lessons Learned (CALL). Web site: <http://call.army.mil/>.

4-3. Nutrition for Military Operations

a. Nutrition Guidance. The USARIEM publishes technical notes that are valued references for nutrition in military operations. The technical notes are periodically updated with new information on nutritional information. Example: Technical notes on “Nutritional Guidance for Military Operations in Temperate and Extreme Environments” may be obtained from USARIEM (see web site address above).

b. Military Rations. The rations most often used by deployable hospitals are described below. Other available military rations are listed in Natick Pam 30-25.

- *Unitized group ration.* Unitized group rations (UGR) are designed to simplify and streamline the process of providing the highest quality meals in the field. They integrate modules of Heat and Serve (H&S) (formerly T-Rations) and A-Rations with quick-prepared, user friendly brand name commercial products. The UGR is used by unit food service facilities to sustain groups of personnel during worldwide operations. Refrigeration is required with UGR-A-Rations, but not with the UGR-H&S. Menus and recipes are included with each module. Each module provides 50 complete meals. The UGR contains supplements of milk, bread, and cold cereal, and provides an average of 1450 kilocalories (commonly referred to as calories). For additional information on preparing regular diets, refer to FM 10-23.

- *Medical diet supplement to the unitized group ration.* The medical diet supplement list is used in combination with the UGR to prepare modified patient diets. See Appendix D for a list of medical diet supplements to support 50 patients for five days. The medical diet supplements can be combined with the UGR to meet the requirements for High-Calorie-High-Protein, Blenderized Liquid, Full Liquid, and Clear Liquid diets. The purchase and resupply of these items must be coordinated for during the hospital’s predeployment phase.

- *Meal, ready-to-eat, individual.* The meal, ready-to-eat, individual (MRE) is a packaged meal designed for issue, either in individual meals or in multiples of three meals for a complete ration. The components are packaged in flexible envelopes with Flameless Ration Heaters. Each meal provides an average of 1250 kilocalories. There are 24 MRE menus of which four are vegetarian menus. Each box of 12 MRE meals has two vegetarian menu meals. See Appendix D for a list of medical diet supplements to support 50 patients for five days. As with the UGRs, the medical diet supplements can be combined with the MREs to meet the requirements for High-Calorie-High-Protein, Blenderized Liquid, Full Liquid, and Clear Liquid diets.

4-2