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AIR UNIVERSITY

NURSING LEADERSHIP IN AIR FORCE THEATER HOSPITALS:
THE CHIEF NURSE REQUIREMENT

by

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Abstract

In 1987 the United States Air Force (USAF) had 119 medical treatment facilities (MTFs)-81 with inpatient capabilities. Today, the USAF has 74 MTFs with just 14 inpatient facilities world-wide. This 83% reduction of inpatient facilities during the past 20 years and the focus on outpatient care has produced fewer nursing leaders with the requisite knowledge, education, training and experience required to lead theater hospital nursing operations. This is a critical because the skills nurses need for deployment are honed in hospital environment.

The purpose of this paper is to justify the need to add a colonel chief nurse (CN) requirement to the EMEDS manpower detail based on three underlying principles. First, USAF and civilian guidance require a CN to lead nursing operations. Second, the doctrine that drove EMEDS development has significantly changed over the past ten years. The linear battlefield no longer exists, casualty flows have changed and joint operations require theater hospitals to have consistent capabilities regardless of service-origin. Third, colonel CNs are authorized in all but one USAF hospital and are best prepared to lead nursing operations in theater hospitals.

This paper offers an operationally-based, standards-driven justification for deploying the best-prepared nursing leaders to lead nursing operations in USAF theater hospitals. It concludes with a recommendation to add the CN requirement to the EMEDS unit type code along with additional recommendations on how to better administratively and operationally prepare CNs for deployment.

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Introduction

In 1987 the United States Air Force (USAF) had 119 medical treatment facilities (MTFs)-81 of which possessed inpatient capability. Today, the USAF has 74 MTFs with just 14 inpatient facilities world-wide.¹ The 83% reduction of inpatient facilities over the past 20 years and the focus on outpatient care has produced fewer nursing leaders with the requisite knowledge, education, training and experience required to lead theater hospital nursing operations. This is a critical because the skills nurses need for deployment are honed in the hospital environment.

In the Global War on Terrorism, USAF medics are deploying into the combat zone to provide medical support for U.S. and non- U.S. military personnel and civilians. This is a significant change from the original planning and programming factors used by the USAF for development of its contingency platforms. The USAF designed, equipped and staffed its Expeditionary Medical Support (EMEDS) platform to meet USAF medical needs at secure aircraft bed-down locations.² Clinical capability focused on meeting the health care needs of the base population and injuries resulting from contingency airbase operations rather than casualties resulting from ground combat operations. The Department of Defense's (DoD's) shift toward joint operations has created an environment where the USAF is currently providing sustained EMEDS capability in forward locations primarily treating blast and gunshot wounds resulting from ground combat operations.

The purpose of this paper is to justify the need to add a colonel chief nurse (CN) requirement to the EMEDS manpower detail based on three underlying principles. First, USAF and civilian guidance require a CN to lead nursing operations. Second, the doctrine that drove EMEDS development has significantly changed over the past ten years. The linear battlefield no

longer exists, casualty flows have changed and joint operations require theater hospitals to have consistent capabilities regardless of service origin. Third, colonel CNs are authorized in all but one USAF hospital and are best prepared to lead nursing operations in theater hospitals. Chief nurses are competitively selected through a centralized board to ensure they have the required education, training and experience before they can be assigned to a MTF therefore, it is inappropriate to randomly assign CN duties to an inexperienced field grade nurse in the deployed environment.

This paper is divided into five main sections. It opens with a discussion of USAF and civilian CN standards. The next section contains a review of past, present and emerging doctrine, followed by an analysis of the disconnect between programmed and “real-world” manning requirements of Army and USAF theater hospitals. The third section provides an in-depth analysis of the clinical and operational complexities of deployed nursing operations. The fourth section compares methods currently used to select and prepare CNs for deployment and contrasts them to the methods used to select CNs for home-station assignments. The fifth section of contains insights from clinical leaders on the unique challenges of deployed operations and the need for proven nursing leadership. The paper concludes with a recommendation to add the CN requirement to the EMEDS unit type code along with additional recommendations to better prepare CNs for deployment both administratively and operationally.

¹ Sheila A. Marcusen, associate, Booz Allen Hamilton, to author, email, 22 January 2008. Email contained a 1987 AFMS recruiting pamphlet, “Modern Facilities: Total Environment” which listed each of the 119 USAF MTFs identifying inpatient bed capability or clinic designation.

² Taylor, Lt Gen George P. Jr., “Air Force Medical Service Keeps Pace with Change,” *US Medicine Inc*, Jan 2003, <http://www.usmedicine.com/column.cfm?columnID=111&issueID=46>.

Standards

The CN is a pivotal position within a health care organization. The United States Air Force, Joint Commission, and American Nurses Association standards all require a CN to direct nursing operations across a health care organization. The USAF theater hospital does not include a CN requirement which conflicts with the standards discussed below.

United States Air Force

The USAF directs that any unit (hospital, clinic, aeromedical evacuation squadron) providing nursing care will have a CN who has been competitively selected in a centralized CN screening board. The CN as member of the executive team has primary responsibility for ensuring nursing competency, directing all nursing care delivery and for maintaining nursing practice standards across the organization.¹ Air Force Instruction (AFI) 44-102 *Medical Management* requires each MTF to include the office of the Chief Nurse Executive.² The manpower detail in the EMEDS unit type codes (UTCs)³ does not include this requirement which is in direct conflict with AFI 44-102.

The Joint Commission

The Joint Commission is the nation's "predominant standards-setting and accrediting body in health care."⁴ It is an independent non-profit organization that evaluates and accredits over 15,000 health care organizations in the United States.⁵ All USAF hospitals and medical centers submit to Joint Commission accreditation at least once every three years. Joint commission standards direct that a "nurse executive establishes nursing policies and procedures, nursing standards, and a nurse staffing plan(s). The nurse executive shall possess similar qualifications as leadership peers (e.g., if leadership peers are expected to have masters or

doctoral degree, the nurse executive shall have a masters or doctoral degree).”⁶⁷ This standard emphasizes the need for the CN to have the same preparation as the rest of the executive team. In the military, similar qualifications not only mean education and experience but also translate into rank.

American Nurses Association

The American Nurses Association directs that a nurse executive is responsible and accountable for the overall management of nursing practice throughout the health care organization.⁸ Nurse administrators at all levels have the responsibility to oversee nursing care, advocate for patients and staff, and to seek solutions to improve the environment of care. The American Nurses Association makes a clear distinction between the nurse manager and the CN. Both nurse managers and CNs are nurse administrators with professional standards of practice and performance, but their scope of responsibility is considerably different. The nurse manager focuses tactically on one or two defined clinical areas, whereas the CN is a member of the executive team and focuses operationally on nursing services across the entire organization.⁹

The CN is more than a duty-title. The position requires an individual who possesses the required rank, education, training and experience. Air Force, Joint Commission and American Nurses Association standards drive a CN requirement rather than the nurse manager position currently found in the EMEDS manpower detail. The following section discusses doctrinal changes and underscore the need for proven nursing leaders to direct nursing operations.

¹ Air Force Instruction (AFI) 46-101, *Nursing Service and Operations*, 17 August 2004, 2.

² Air Force Instruction (AFI) 44-102, *Medical Care Management*, 1 May 2006, 10.

³ Definition of unit type code- “A potential capability focused upon accomplishment of a specific mission that the military Service provides. It can consist of manpower force element (MFE) only, equipment (LOGDET) only, or both manpower and equipment.” (AFI 10-401 *Force Planning*, para 5.2).

⁴ The Joint Commission, “Facts about the Joint Commission,” http://www.jointcommission.org/AboutUs/joint_commission_facts.htm (accessed 3 Feb 2008).

⁵ The Joint Commission, "Facts about the Joint Commission,"

http://www.jointcommission.org/AboutUs/joint_commission_facts.htm (accessed 3 Feb 2008).

⁶ Stay Alert! Your Virtual Compliance Administrator, "Review of Revised JCAHO Standard NR 3 10 Effective January 1 2007," From the Experts at MCN Healthcare, <http://www.mcnstayalert.com/Alerts/621/TJC/Review-of-Revised-JCAHO-Standard-NR-3-10-Effective-January-1-2007.htm> (accessed 3 Feb 2008).

⁷ The term chief nurse is equivalent to nurse executive.

⁸ American Nurses Association, *Scope and Standards for Nurse Administrators*, Silver Spring, MD: Nursebooks.org., 2004, 5.

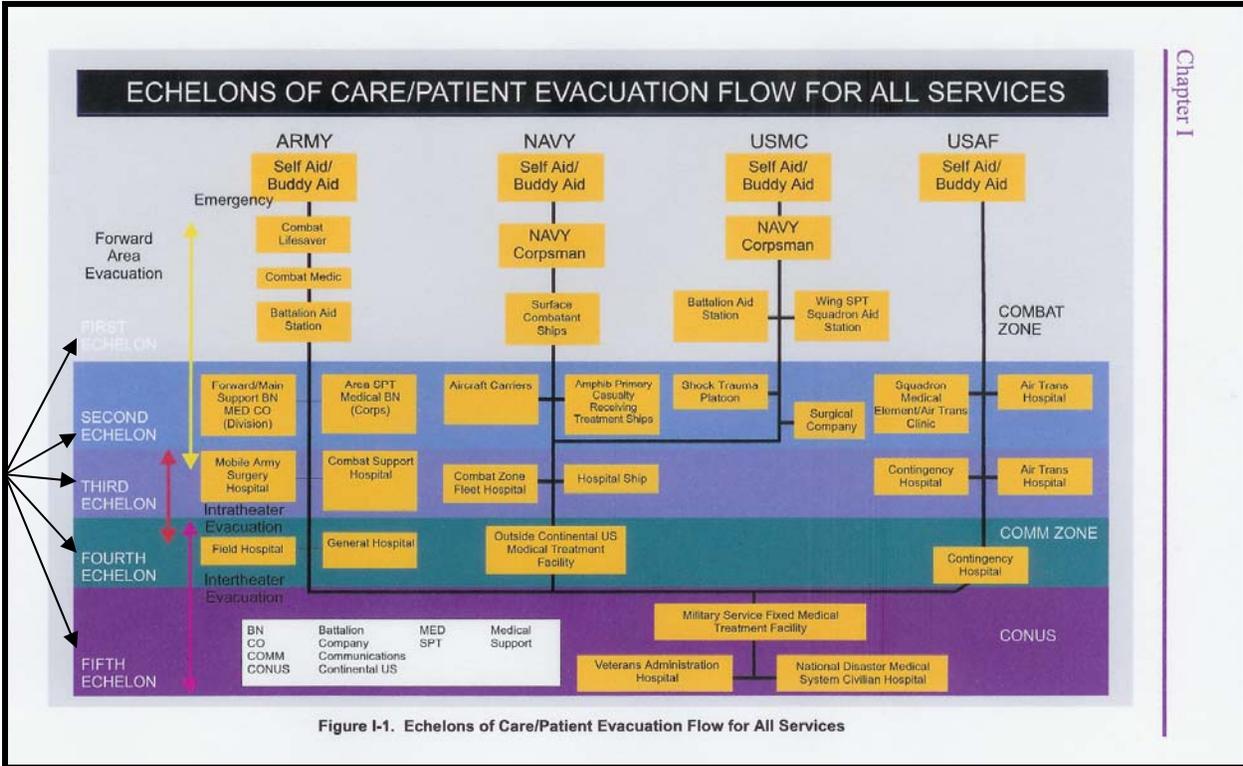
⁹ American Nurses Association, *Scope and Standards for Nurse Administrators*, 83-84.

Doctrine

This section examines past, present and emerging medical doctrine and how these doctrinal changes have impacted the patient care continuum. Interim measures have been used to augment EMEDS manpower levels to meet today's challenges but the time has come to institutionalize these measures to ensure sustainment over the long-term.

Joint Doctrine

There have been significant changes to joint doctrine since the EMEDS was first designed in the late 1990s. In 1996, Joint Publication 4-02.2 *Joint Patient Movement* described echelons of care and a process where casualties moved sequentially through each echelon receiving more definitive care at each subsequent level (see figure 1).¹ The levels of care fit nicely within each service's anticipated casualty flow but did not always provide interchangeable capability. The USAF developed its EMEDS platform using the echelon/level of care framework. Joint Publication 4-02.2 stated that Echelon 3 facilities (theater hospitals) may not possess the "crisis aspects of initial resuscitative care" as Echelon 2 facilities already provide this capability. Echelon 3 facilities are described as having limited surgical capability and focus on moving patients toward restorative health.² This subtle division of capabilities between the two levels of care meant that level/echelon 3 facilities would be caring for patients who had already received initial stabilization and perhaps even damage-control surgery. In essence there was a sharp contrast in the intensity of clinical operations between the two facilities. This division of capabilities no longer exists.



Echelons/
Levels

Figure I-1. Echelons of Care/Patient Evacuation Flow for All Services

Figure 1. Levels of care and casualty movement³

In 2006, to account for the non-linear nature of today’s battlefield, Joint Publication 4-02 *Joint Health Service Support* made echelons of care obsolete and instead described seven capabilities essential to delivering health service support (see figure 2).⁴ Those capabilities are as follows:

- Policy and resource acquisition
- Prevention and protection
- First responder
- Forward resuscitative care
- Theater hospitalization
- Enroute care

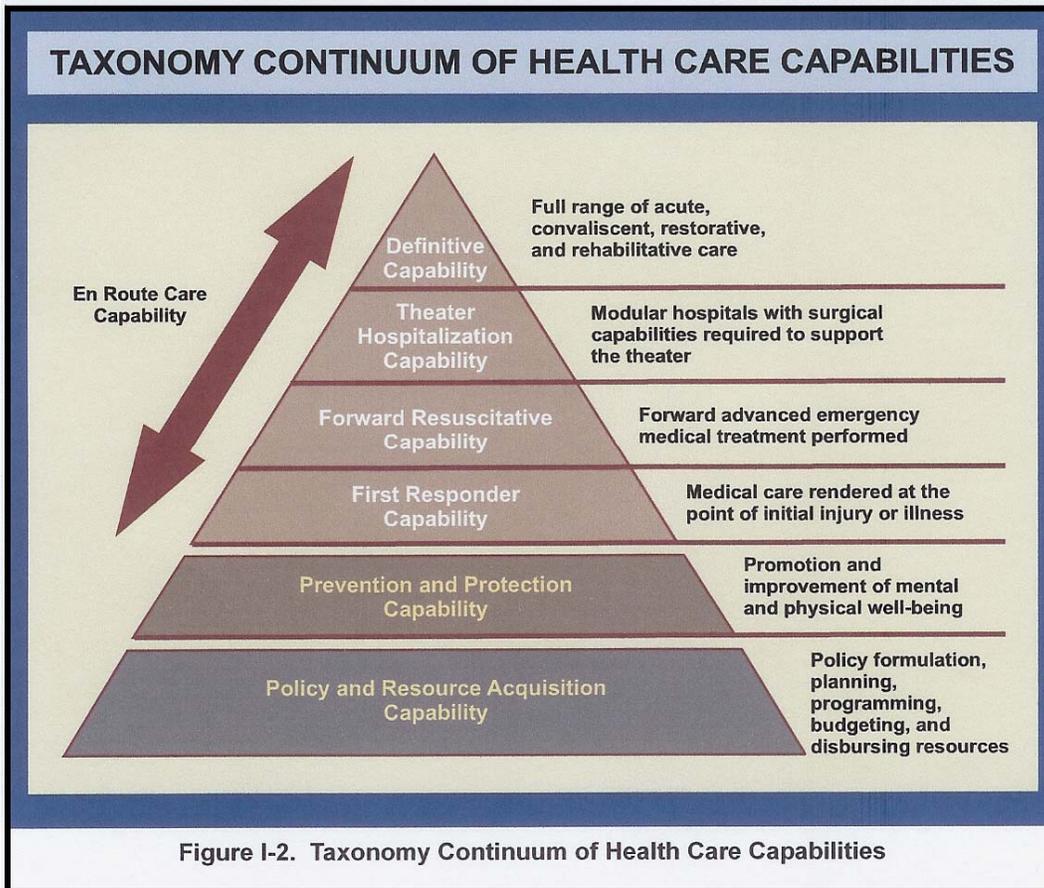


Figure 2. Taxonomy continuum of health care capabilities

In 2007, the Joint Force Health Protection (JFHP) concept of operations (CONOPS) built upon this new concept by providing greater detail for each capability and striving for consistency across the services. This effort is based on the 2005 Global Force Management concept where the DoD began moving towards ensuring consistent capability across the services for shared functions.⁵ The non-linear relationship of the capabilities depicted in figure 3 is in sharp contrast to the linear progression shown in figure 1.

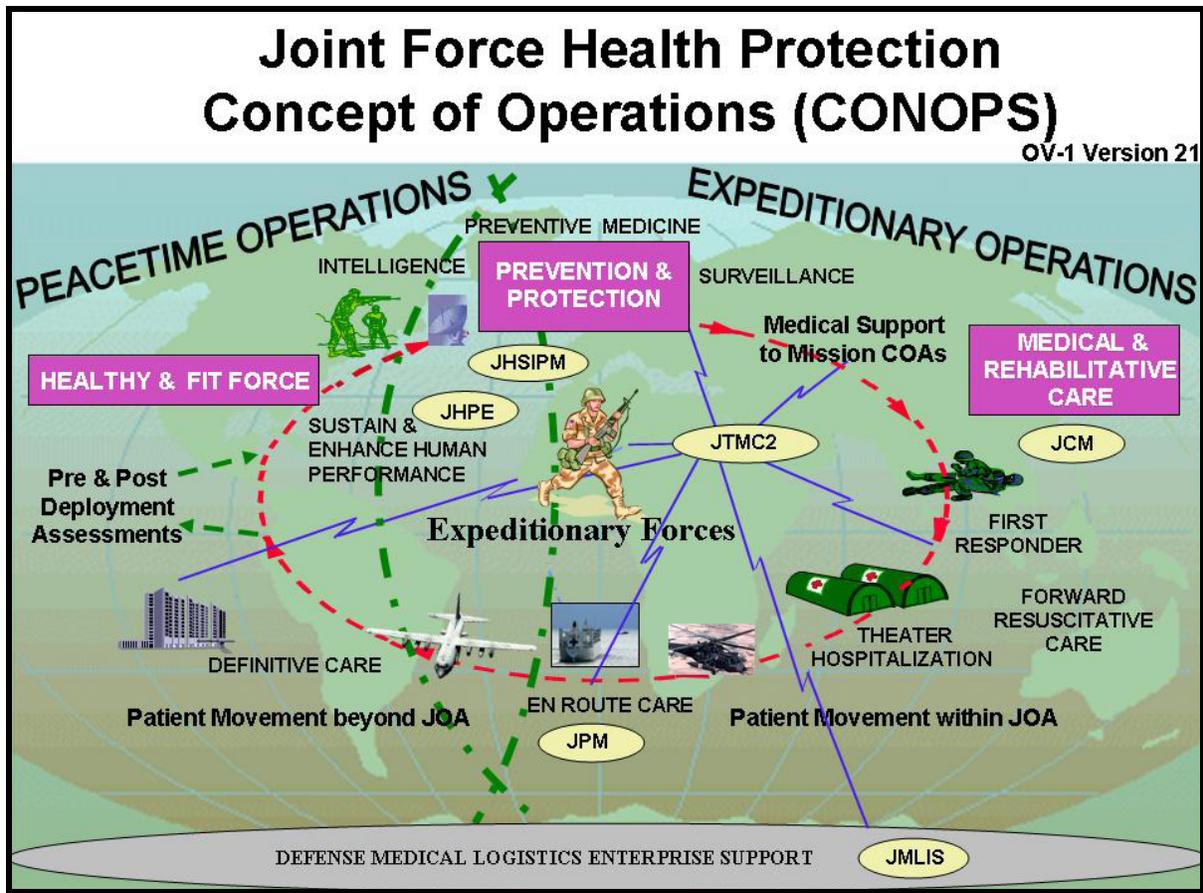


Figure 3: Joint Force Health Protection (JFHP) CONOPS⁶

The echelons/levels of care described in previous doctrine documents did translate well into the current capabilities-based CONOPS.⁷ For example theater hospitalization capability (formerly referred to as Echelon/Level III) will now include advanced trauma/resuscitative care and life support capabilities previously found in Echelon/Level II and will also include definitive/rehabilitative care capabilities formerly found in Echelon/Level IV.⁸ The JFHP CONOPS states the following:

This care begins with the first responder, proceeds through forward/resuscitative care and theater hospitalization in the joint area of operations, and extends through definitive care at a CONUS based rehabilitative facility. Beyond this first capability of casualty care, the continuum is no longer linear and the medical system must be capable of rapidly adapting to the conditions of the operation, ensuring the right medical capabilities are available at the right place and the right time.⁹

The JFHP CONOPS includes discussion regarding the need for medical capabilities across the services to be interoperable, interdependent and interchangeable. The driving forces behind these concepts are the need to improve efficiency and reduce redundancy, while maintaining service-unique capabilities.¹⁰

For contingency planning, each service determines the size and number of facilities needed through the Medical Analysis Tool. This program uses several factors including the population at risk and operational tempo to determine service contingency medical resource requirements.¹¹ Factors driving USAF requirements include disease non-battle injury (DNBI) events, contingency airfield operations, and occasional mishaps/industrial accidents. Factors driving Army requirements include direct contact with the enemy as well as DNBI and operational mishaps.¹² Medical assets of all services are available for use by the combatant commander once a contingency is declared. Historically, an Echelon/Level III facility would be located in a lower-threat area, rather than within targeting range of the enemy. However, due to the non-linear nature of today's contingencies, front lines are blurred leaving both combatants and non-combatants constantly at risk.

Air Force Doctrine

The Air Force Medical Service (AFMS) designed the EMEDS to provide medical capability at secure USAF beddown locations during contingencies.¹³ Using a building block construct, EMEDS provides an insertion capability and then builds incrementally as the population at-risk increases.¹⁴ Currently the USAF has an expanded EMEDS (theater hospital) at Balad AB, Iraq, within five miles of where friendly and enemy forces are in contact. As a result, now casualties often skip forward resuscitative care and go directly to the theater hospital where they consume more resources and are of a higher acuity than would have normally

occurred in the past.¹⁵ When the non-linear battlefield is combined with the doctrine of “evacuate and replace” the result is a high operational tempo with a steady flow of high-acuity casualties.¹⁶

Current EMEDS doctrine does not include discussion of CN responsibilities. Instead, the term “senior nurse” is used twice—simply referring to counting controlled medications and feeding patients.¹⁷ There are five nurse corps majors authorized in the manpower detail through increment four and nursing personnel account for 27 of 59 (46%) personnel assigned to the facility (see appendix A).¹⁸ Majors are programmed into the EMEDS because they are experienced clinicians who provide clinical leadership, unit management, and patient care. As the EMEDS builds to the theater hospital, a lieutenant colonel nurse manager is authorized but it still does not earn a stand-alone CN. The lieutenant colonel is expected to perform as a clinical nurse and nurse manager with the additional duty of CN for the entire facility. This EMEDS configuration is comparable to USAF home-station hospitals with nursing personnel working in the emergency department, intensive care unit (ICU) (6-beds), intermediate care ward (39-beds), and surgical department. In some cases, there may also be a contingency aeromedical staging facility added as part of the EMEDS configuration. It is unrealistic to expect a lieutenant colonel to deliver nursing care to patients, perform as nurse manager of the inpatient ward, oversee nursing operations in at least four separate clinical areas, and be an active member of the executive team. This is completely inconsistent with home-station operations where each nursing unit earns a stand-alone nurse manager, and where each facility earns a CN in order to ensure compliance with patient safety and nursing care standards.¹⁹

Army Doctrine

The Army's Level III facility (theater hospital) is a corps-level combat support hospital (CSH) designed/staffed to deliver care in the combat zone. The corps-level CSH can be employed at 44-bed, 84-bed²⁰ and 168-bed increments for a total of 248 beds.²¹ The CSH is a combat zone medical facility prepared to receive casualties after treatment at a Level II/forward resuscitative care facility or directly from the battlefield. The 44-bed insertion package contains 143 manpower authorizations with 68 total authorized nursing personnel [34 NC officers/34 enlisted nursing personnel (68W)] (see table 1). This configuration includes a nursing service section staffed with a CN, assistant chief nurse (ACN) and senior enlisted member (E8).²² These personnel are responsible for all nursing operations/personnel, scheduling and contingency plans. A colonel (O6) CN resides in the command section along with the rest of the executive team and is responsible for the nursing services section and all nursing service personnel.²³

| Beds/Facility Doctrinal | Nursing Service Section (AOC-rank-#) | Total Nursing Service Personnel | Total Nurse Corps officers | Total Enlisted Nursing Personnel | Total Hospital personnel |
|----------------------------------|--|---------------------------------|----------------------------|----------------------------------|--------------------------|
| Army 44 Bed CSH | 3 (66N-O6-x1) (66N-O5-x1) (68W-E8-x1) | 68 | 34 | 34 | 143 |
| USAF 45 Bed EMEDS | 0 | 47 | 20 | 27 | 101 |
| USAF Difference +1 (1%) | -3 (-100%) | -21 (-31%) | -14 (-42%) | -7 (-21%) | -42 (-30%) |

Table 1. Doctrinal Army²⁴ and AF²⁵ medical treatment facilities

The Army has a separate classification for a CN compared to other lower level management positions. The Army Officer Classification (AOC) for a CN/assistant chief nurse (ACN) is 66N00, and the AOC for a clinical head nurse/clinical nurses is 66X00.²⁶ The role of the Army head nurse equates the nurse manager role in the USAF. The separate AOC

designation for the nurse executive facilitates the sourcing process as it clearly distinguishes between personnel qualified for CN or nurse manager positions.

Army/Air Force Facility Comparison

There is a great disparity in manpower authorizations between the doctrinal USAF and Army theater hospitals. Despite the nearly identical size and capability of the two facilities, there are 30% fewer total personnel assigned to the EMEDS as compared to the CSH. The most striking finding is that the USAF EMEDS facility programs for 42% fewer nurses than the CSH (see table 1). The USAF neither includes a CN requirement in the EMEDS nor plans for a nursing service section led by a CN to oversee nursing operations.

This large doctrinal (programming) disconnect between the USAF and Army theater hospitals is operationally corrected during actual contingency operations (see table 2). Table 2 compares the manpower authorizations for two operational facilities with similar missions in sustainment operations. The table below shows that the difference in manning levels is nearly consistent with differences in overall bed capacity, except for the number of personnel authorized in the nursing services section in EMEDS facility²⁷.

| Beds/Facility | Nursing Service Section | Total Nursing Service Personnel | Total Nurse Corps Officers | Total Enlisted Nursing Personnel | Total Hospital Personnel |
|--|-------------------------|---------------------------------|----------------------------|----------------------------------|--------------------------|
| Army ²⁸ (74-beds) | 4 | 215 | 96 | 119 | 464 |
| EMEDS ²⁹ (58-beds) | 2 | 176 | 74 | 102 | 342 |
| USAF Difference -16 beds (-22%) | -2 (-50%) | -39 (-18%) | -22 (-23%) | -17 (-14%) | -122 (-26%) |

Table 2. Operational MTFs –staffing comparison³⁰

To provide similar capability, the USAF augmented its EMEDS manpower by adding non-standard UTCs. Non-standard UTCs have enabled the USAF to meet its current operational needs, but they do not allow the AFMS to build the infrastructure to support and develop contingency-driven positions over the long term. Active duty manpower authorizations are validated through readiness manpower requirements. Therefore, it is essential to institutionalize the non-standard UTCs and formally add them to the EMEDS UTC structure.

¹ Joint Publication 4-02.2 *Joint Tactics, Techniques and Procedures for Patient Movement in Joint Operations*, 30 December 1996, I-1.

² Joint Publication 4-02.2, *Joint Tactics, Techniques and Procedures (JTTP) for Patient Movement in Joint Operations*, 30 December 1996, I-3.

³ Joint Publication (JP) 4-02.2 *Joint Tactics, Techniques and Procedures for Patient Movement in Joint Operations*, 30 December 1996, I-2.

⁴ Joint Publication (JP) 4-02, *Health Service Support*. 30 July 2001, p I-2.

⁵ Force Management Joint Functional Concept v1, June 2, 2005, 9.

⁶ Joint Force Health Protection Concept of Operations, July 2007, 20.

⁷ Joint Force Health Protection Concept of Operations, July 2007, 23.

⁸ Joint Force Health Protection Concept of Operations, July 2007, 24.

⁹ *Ibid*, 12.

¹⁰ *Ibid*, 14-15.

¹¹ Joint Publication (JP) 4-02, *Health Service Support*, 30 July 2001, III-13

¹² Walter Jansen, associate, Booz Allen Hamilton, to associate Booz Allen Hamilton, Sheila A. Marcusen, email, 12 December 2007.

¹³ Air Force Tactics Techniques and Procedures (AFTTP) 3-42.71, *Expeditionary Medical Support (EMEDS)*, 27 July 2006, 26.

¹⁴ *Ibid*, 10.

¹⁵ Joint Publication JTTP, 4-02.2 *Patient Movement in Joint Operations*, 30 December 1996, I-2.

Contingency medical operations are divided into echelons of care which later evolved to levels of care. Echelon I First Responder/Self-Aid/Buddy Care; Echelon II – Forward resuscitative surgery (Combat Zone); Echelon III – Combat Surgical Hospitals, Fleet Hospitals, EMEDS +25 (Combat Zone); Echelon IV – Definitive Care (Landstuhl) (Communication Zone); Echelon V – Restorative/Rehabilitative Care (CONUS).

¹⁶ AFTTP 3-42.5 *Aeromedical Evacuation (AE)*, November 2003, 6.

¹⁷ AFTTP 3-42.71, *Expeditionary Medical Support (EMEDS)*, 27 July 2006, 12.

¹⁸ AFTTP 3-42.71, 27 July 2006, 66.

¹⁹ Col Linda C. Kisner, Director, USAF Nursing Services, Office of the USAF Surgeon General, interview by author, 10 December 2007.

²⁰ Army Field Manual (FM) 4-02.10, *Theater Hospitalization*, January 2005, 2-1.2-22, 2-23; 2-25, 2-26.

²¹ *Ibid*, 2-16.

²² Lt Col Timothy Meredith, course author, Force Management, Army Command and General Staff College, to author, email with attachments, 15 October 2007.

²³ Army FM 4-02.10, *Theater Hospitalization*, 2-20, 2-6

²⁴ Lt Col Timothy Meredith, Course Author for Force Management, Army Command and General Staff College, to author, email with attachments, 15 October 2007. Attachment contained Excel spreadsheet with TOE 08547AA000 44 Bed CSH

²⁵ Keith Tucker, Contractor, contractor, Air Force Medical Operations Agency (SGXP), to the author, email with attachment, 16 August 2007.

²⁶ COL Barbara Bruno, "Forward Together, Joint Interoperability," (lecture, USAF Nurse Corps, Executive Leadership Symposium, Dallas, TX, 5 April 2007).

²⁷ There is a 22% difference in the bed capacity of the two facilities. With the exception of the 28% difference in the nursing services section, (50%-22%= 28%) the largest difference in all other areas does not exceed 8%. One additional authorization in the EMEDS nursing services section would balance the two facilities.

²⁸ SFC Jeffrey A. DeGarmo, 248th Combat Support Hospital, to the author, email, [SECRET (information extracted is unclassified)]. 16 October 2007.

²⁹ Col Norman J. Forbes, chief nurse, 332 EMDG Balad AB, IQ, to author, email, 20 October 2007.

³⁰ The location and actual capability of the two MTFs are not disclosed in order to keep the information unclassified.

Operations

The operational intensity of theater hospitals has increased due to recent doctrinal changes. The following section will discuss the role of the CN and the need for proven nursing leaders to direct theater hospital nursing operations through analysis of staffing challenges, clinical complexity, and cultural/language challenges associated with caring for non-U.S. patients.

Current Operations

The USAF currently has two theater hospitals deployed in support of Operation Iraqi Freedom and Operation Enduring Freedom located at Balad Air Base, Iraq and Bagram Air Base, Afghanistan respectively. The Surgeon's (SG) Directorate of United States Central Command's USAF component (USCENTAF) created several non-standard UTC after validating additional requirements identified by the theater hospital's executive team. For Balad, 25 non-standard UTCs were added, including a medical management team consisting of the SGN (Chief Nurse/Colonel) and the SGH (Chief, Medical Services/Lt Col). Four of the 25 UTCs were nursing-focused adding eight nurses to support the operating room, emergency department, recovery room, and the CN. At Bagram, 13 non-standard UTCs were added with just two being nursing-focused.¹ In a telephone interview, Colonel Carla S. Helm (CENTAF/SG2) stated that she created the non-standard UTCs to augment baseline EMEDS staffing due to the intensity of clinical operations. The medical management UTC was added to align Balad's executive structure with home-station operations. Unfortunately, Bagram has not identified the need for a CN or SGH to oversee clinical operations. Facilities must first identify/recognize the need for additional manpower and forward their requests through the deployed theater medical command. Once validated by the joint task force (JTF) or the component's SG's office the requirements are

passed to the Air and Space Expeditionary Center (AEFC) for sourcing. Given the overall reduction of inpatient platforms across the USAF, it makes sense to build consistent clinical oversight into the EMEDS structure rather than giving commanders an option. Programming a CN into the EMEDS manpower detail will ensure this capability exists regardless of deployed location.

The reduction of inpatient platforms has impacted each of the clinical specialties. There is no guarantee that anyone within a random pool of deploying field grade nurses will have the appropriate skills to act as CN of a theater hospital.² The current formal system does not allow an opportunity to deliberately select a CN with prior experience or evaluate field grade nurses tasked to fill the CN role.

As the “lead facility,” Wilford Hall Medical Center has been sourcing medical requirements at Balad for nearly three years. Its senior nursing leaders created an internal process to select only the best-qualified CNs deploy to fill the CN requirement.³ In January 2007, the USAF began to staff the hospital at Bagram. Since this facility resides within a different JTF there is no CN requirement, nor is there a method to deliberately select a field grade nurse to fill the Bagram CN role. Without a formal CN requirement published in the EMEDS unit type codes, the medical group commander at Bagram simply assigns CN responsibilities to a field grade nurse originally tasked to deploy as a nurse manager. This not only reduces the number of clinical nurses available to perform patient care, but assigns CN duties to a nurse who may not be qualified.

Nursing Operations

Nursing plays a central role in the care patients receive in any MTF. Nursing personnel are present around-the-clock delivering professional nursing care to their patients. Registered

Nurses are responsible for maintaining standards of professional practice both at home-station and deployed. Nurses are held accountable to fifteen professional nursing practice standards outlined by the American Nurses Association. These standards focus mainly on direct contact between nurses and patients.⁴ Most of these standards transfer quite easily from home-station to the deployed environment. However, coordination of care, planning care, ethics and resource utilization take on additional significance during deployment. Within 24 to 72 hours of admission, approximately 40% of patients depart a theater hospital via the MEDEVAC or aeromedical evacuation systems,⁵⁶ causing the inpatient nursing staff to spend considerable time coordinating care and preparing patients both clinically and administratively for transfer. Nursing manpower resources are based on the number personnel needed to perform direct care activities. Yet the nursing staff must often spend valuable time away from patient care performing housekeeping duties, restocking of shelves, and patient transportation because there is no additional manpower available for these tasks. From an ethical standpoint, there are situations where non-U.S. patients may be unable to communicate end-of-life decisions, often leaving the clinical staff to resolve these dilemmas. Nurses may also have conflicted feelings about caring for prisoners or detainees due to fear or related to the circumstances surrounding their injury.⁷

As CN in Balad, Colonel Norman J. Forbes stated he was continuously engaged in daily operations and controlled patient flow throughout the entire facility.⁸ He often worked alongside his nurses performing direct patient care which gave him a chance to lead by example, assess the quality of care, and stay situationally aware. He expressed concern about the limited pool of senior nurses with recent inpatient clinical leadership experience and is pleased that the nurse corps is attempting to actively select CNs for critical deployment leadership positions. He stated

that it was essential to assign only qualified colonel CNs to USAF theater hospitals to ensure rank consistency within the executive team and among their Army CN colleagues throughout the theater. He said it keeps the focus on the issues rather than the rank.

Lt Col Phillip G. Kleinman is currently filling the CN role at Bagram. He related in an email that the CN plays a bigger role in clinical operations than the medical operations squadron commander, who often gets bogged-down in personnel-related administrative duties. He stated this was due to the CN's focus on clinical operations, trauma care and aeromedical evacuation. When discussing the nursing staff, he stated that many of his staff came from outpatient facilities and have not seen trauma, central lines or chest tubes in a very long time. He estimated that just 50% of his ward staff had current inpatient experience.⁹ Based on Lt Col Kleinman's observations, it is clear that the USAF focus on outpatient care reduced the number of clinical nurses with current medical-surgical nursing skills.

Lt Col Marla De Jong traveled throughout the Southwest Asia during a 312-day deployment as the Program Manager for the Joint Theater Trauma System. When asked about the challenges that inexperienced field grade nurses face acting as CN in a theater hospital, she said that her primary concerns were lack of situational awareness, difficulty solving problems and limited ability to leverage available resources. During the discussion, she described an instance where a Major tasked as CN took a very tactical view of nursing operations and lacked the management skills to properly supervise nursing personnel throughout the various nursing units. In addition, Lt Col De Jong stated that this CN failed to identify nursing practice deficiencies. When the deficiencies were brought to her attention, she did not know how to correct the problem and did not capitalize on educational resources that were available to her.¹⁰

Colonel Laura V. Alvarado is currently the Deputy Commander of the 59th Medical Wing (Wilford Hall Medical Center) located Lackland Air Force Base, Texas. During her two year tenure as Wilford Hall's CN, she had first-hand experience sourcing the deployed CN position at Balad and also deployed to Balad as the commander of the medical operations squadron. She commented on the importance of finding strong nursing leaders to fill critical leadership positions and the challenges faced by lieutenant colonels deployed to theater hospitals. Colonel Alvarado stated detailed oversight and coordination are needed to ensure standards are maintained and to keep nurses/medical technicians within their individual scopes of practice. She described an environment where high-intensity operations often forced people to stretch their limits in order to get the job done. She noted the lieutenant colonel CN was often sidelined because her rank was not equivalent to rest of the executive team which reduced her ability to advocate effectively for nursing operations. Colonel Alvarado stated, "Since nurses and medical technicians represent the largest force within the theater hospital whose performance is critical to mission accomplishment, they require strong advocacy from an accomplished nursing leader who has already demonstrated competence as a CN."¹¹

These interviews and discussions highlight the pivotal role of the CN in a theater hospital and highlight the need to comply with the Joint Commission's standard requiring the CN to have the same level of preparation as the rest of the executive team. The CN leads nursing operations that drive the throughput for the entire facility. The reduced number of inpatient facilities has limited the number of nurses with current inpatient experience which places greater burden on experienced nursing personnel to perform and to train their less experienced counterparts. The joint environment, high operational tempo, and clinical complexity requires proven nursing

leaders who possess rapid problem solving and decision-making abilities, along with a keen eye to ensure compliance with standards.

Operational Complexity

The deployed operational environment is highly complex and nursing plays a central role in the delivery of patient care. Blending personnel from different backgrounds with varying levels of training/experience coupled with inconsistent tour lengths adds to the complexity of delivering nursing care. Nurses and medical technicians account for nearly half of all personnel deployed in the AFMS and 30% of all deployed nursing personnel are from the Air National Guard (ANG) or United States Air Force Reserve Component (USAFR).¹²

United States Air Force Reserve Command recently performed a demographic survey of all its nurses and medical technicians. Findings showed that 95% of nurses reported working as nurses at least part-time, 68% reported working full-time with nearly 90% reporting greater than ten years' experience.¹³ In contrast, just 27% of the enlisted medical technicians assigned to ground units and 32% of aeromedical technicians worked in health care as their primary civilian employment.¹⁴

As forces rotate to support the Air and Space Expeditionary (AEF) cycle, there are often just three to five days for entire units to switch out. The high operational tempo does not allow much time for orientation. This is a very busy period as personnel are not only transitioning in their work centers, but are transitioning in/out of the deployed location. The AFMS does not deploy as a unit but rather, becomes a unit by quickly blending a heterogeneous staff upon arrival. It is not unusual to have Regular AF, Army, USAFR and ANG personnel from many locations working together with varying skill/experience levels. Tour lengths can vary from 45 days, 120 days or over 365 days, often driving a greater than 100% turnover within the facility

every 120 days compared to a 30% annual turnover rate at home-station. It takes a proven nursing leader to mold an ad hoc group of staff from different clinical backgrounds while managing variable tour lengths into a highly functioning team of clinicians to care for a remarkably high number of clinically complex patients.

Operations Tempo and Clinical Complexity

To fully appreciate the intensity of the current operational environment this section compares two USAF theater hospitals to benchmark USAF and civilian facilities. The R. Adams Cowley Shock Trauma Center (RAC-STC) in Baltimore-one of the country’s premiere trauma centers and the USAF flagship facility-Wilford Hall Medical Center (WHMC) were selected for comparison in table 3 below.¹⁵

| | Average Monthly Admissions | Percentage of Trauma | Percent to OR in First 24hrs | Percent of Trauma to ICU Post-Operatively | Surgical Procedures per Surgery | Survival Rate |
|------------------------------|----------------------------|------------------------------|------------------------------|---|---------------------------------|---------------|
| Balad | 430 | 65% N=279 | 85% N=237 | 25% N=59 | 4.2 | 98% |
| R.A. Cowley Shock Trauma Ctr | 528 | 100% N=528 | 24% N=126 | 20% N=25 | 3.7 | 95.4 |
| Bagram | 145 | 48% N=70 | 90% N=63 | 33% N=21 | 3.2 | 99% |
| WHMC | 1290 ¹⁶ | 7.72% N=100 ¹⁷ | 22% N=22 | 16.7% N=3.7 | 2.05 | |

Table 3. Facility comparison

During the same one-year period, the USAF theater hospital in Balad averaged 430 admissions/month compared to the RAC-STC which averaged 528 admissions/month.¹⁸ For all trauma admissions, the RAC-STC sent an average of 24% of its trauma patients to the operating room within the first 24 hours by contrast;¹⁹ the USAF theater hospital sent 85%.²⁰ The RAC-STC reported that 20% of patients who undergo surgery within the first 24 hours of admission

are transferred to intensive care post-operatively²¹ whereas Balad transferred 25%.²² Surgeries at RAC-STC averaged 3.7 procedures per surgery²³ compared to 4.2 procedures per surgery at Balad.²⁴ Survival rates at Balad were higher at 98%²⁵ compared to 95.4%²⁶ for RAC-STC. The most significant finding was that Balad averaged nearly twice (47%) the trauma OR throughput.

The USAF facility at Bagram admitted approximately 145 patients per month. Forty-eight percent of admissions had trauma related injuries averaging 3.2 separate surgical procedures per surgery.²⁷ Following surgery, 33% of patients at Bagram were transferred to intensive care post-operatively for supportive care.²⁸ Wilford Hall Medical Center averaged 1,290 admissions per month. Eight percent of admissions had trauma related injuries. Trauma patients at WHMC averaged 2.05 surgical procedures per surgery with 16.7% of trauma patients transferred to intensive care post-operatively.²⁹ The number of surgical procedures and the percent sent to intensive care post-operatively reflect the complexity of patient care.

The intensity of clinical operations in the combat zone exceeds both civilian and military benchmark medical facilities. The clinical intensity in combination with the stress of delivering care in a combat environment drives the need to send only the most capable clinicians and experienced leaders into the field.

Non-U.S. Patient Challenges

Language and cultural barriers of non-U.S. military personnel and civilians often add friction to patient care by reducing the nursing staff's efficiency. Many non-U.S. patients need interpreters to communicate the most basic needs to the nursing staff, and the staff needs the interpreters to communicate the treatment plan, assist with education and to respond to patient questions. For various political/social reasons, these patients may not actively engage in the treatment plan which only adds more barriers to the delivery of care.³⁰

In 2007, the average length of stay (LOS) for U.S. personnel at Balad AB, Iraq was 2.2 days, while the average LOS for non-U.S. military and civilians was approximately 5.6 days.³¹ The combination of rapid turnover for U.S. casualties and the more comprehensive and lengthy care needed for non-U.S. casualties places an additional burden on the MTF. Non-U.S. patients often remain as inpatients for longer periods in order to reach a higher level of functioning prior to discharge due to the limited number of civilian health care facilities in Iraq³²/Afghanistan.³³

The complexity of clinical operations in the deployed environment far exceeds those found at home-station. Only experienced nursing leaders should direct nursing operations in an environment where a heterogeneous collection of nursing personnel are rapidly assembled to deliver care to a group high-acuity patients possessing a myriad of social, ethical and cultural issues.

¹ Major Virginia A. Garner, chief, Clinical Operations, USCENTAF Office of the Command Surgeon, to author, email with attachments [SECRET (information extracted is unclassified)]. 20 October 2007.

² Kisner, to the author, email 7 December 2007.

³ Col Linda C. Kisner, director, USAF Nursing Services, Office of the USAF Surgeon General, to the author, email 7 December 2007.

⁴ American Nurses Association, *Nursing: Scope and Standards of Practice*, 21-45. The standards are as follows: patient assessment; diagnosis; outcomes identification; planning; implementation; coordination of care, health promotion/teaching, consultation, prescriptive authority (when applicable); evaluation; quality of practice, education; collegiality; collaboration; ethics; research; resource utilization and leadership.

⁵ Briefings, commander, 332nd Expeditionary Medical Group, Morning Briefing, Balad AB, Iraq, 1-15 April 2006.

⁶ The AF aeromedical evacuation system provides movement of patients under the supervision of trained medical crews on USAF fixed-wing aircraft. The Army MEDEVAC uses rotary wing platforms under the supervision of trained medics.

⁷ Prisoner/detainees are sometimes wounded while either committing or attempting to commit acts of violence against friendly combatants or non-combatants.

⁸ Col Norman J. Forbes, chief nurse, 332 Expeditionary Medical Group (EMDG), Balad AB, IQ, interview by author, 26 October 2007.

⁹ Lt Col Phillip G. Kleinman, chief nurse, Craig Joint Theater Hospital, Bagram Air Base, Afghanistan, to author, email, 31 October 2007.

¹⁰ Lt Col Marla De Jong, executive director of research; Branch Chief, Support Branch, Wilford Hall Medical Center, San Antonio, TX, interview by author, 6 January 2008.

¹¹ Col Laura V. Alvarado, deputy commander, Wilford Hall Medical Center, San Antonio, TX, to author, email 28 December 2007 and 3 January 2008.

¹² Lt Col Jerome J. Wizda, action officer, Medical Operations Division, Office of the USAF Surgeon General, to the author, email, 28 September 2007.

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- ¹³ Lt Col Donald G. Smith, individual mobilization augmentee to chief education and training, Command Nurse, Headquarters Air Force Reserve Command, to the author, email, 16 October 2007.
- ¹⁴ CMSgt Richard B. Ellis, enlisted manager, Education and Training Division, Air Force Reserve Command, Functional Manager for 4C0X1, 4H0X1, X4N0X1X, 4N1X1, 4P0X1, 4R0X1, 4T0X1, 4V0X1, to the author, email 19 October 2007.
- ¹⁵ University of Maryland School of Medicine, "National Study Center for Trauma," University of Maryland, <http://medschool.umaryland.edu/NSCforTrauma/>, (accessed 18 January 2008).
- ¹⁶ Michelle Garrish, nurse practice coordinator, Wilford Hall Medical Center, San Antonio, TX, to the author, email 2 January 2008.
- ¹⁷ Tracy Cotner-Pouncy, trauma program manager, Wilford Hall Medical Center, San Antonio, TX, to the author, email, 2 January 2008.
- ¹⁸ Col Julia E. Nelson, chief nurse, 332 Expeditionary Medical Group (EMDG), Balad AB, IQ, to the author, email, 14 September 2007.
- ¹⁹ Betsy Kramer, information systems project manager, Trauma Registrar, RA Cowley Shock Trauma Center, to the author, email, 17 October 2007.
- ²⁰ Forbes, to author, email, 28 November 2007.
- ²¹ Kramer, to the author, email, 26 October 2007.
- ²² Forbes, to author, email, 30 November 2007.
- ²³ Kramer, to the author, email, 17 October 2007.
- ²⁴ West, to author, email, 9 October 2007.
- ²⁵ 1Lt Shannon Collins, "Balad's Medics Move into New Facility," *SG Newswire*, 25 August 2007, <http://www.sg.af.mil/news/story.asp?id=123065833>. (accessed 18 January 2008).
- ²⁶ Kramer, to the author, email, 17 October 2007.
- ²⁷ West, to author, email, 9 October 2007.
- ²⁸ Lt Col Phillip G. Kleinman, chief nurse, Craig Joint Theater Hospital Bagram Air Base, Afghanistan, to the author, email, 29 November 2007.
- ²⁹ Lt Col R. Donna Smith, flight commander, Surgical Suite, Wilford Hall Medical Center, San Antonio, TX, to the author, email, 20 November 2007.
- ³⁰ Some civilian patients may be detainees or prisoners. Others may have been injured or had family members killed during the conduct of military operations.
- ³¹ Nelson, to the author, email, 14 September 2007.
- ³² USAID, "Assistance for Iraq-Health," 2 December 2007, <http://www.usaid.gov/iraq/accomplishments/health.html>.
- ³³ USAID, "Assistance to Afghanistan," 9 March 2006, <http://www.state.gov/p/sca/rls/rm/2006/62971.html>.

Chief Nurse Selection and Preparation for Deployment

The previous section outlined the intensity of deployed clinical operations as compared to home-station and underscores the need to task only proven CNs to lead theater hospital nursing operations. The following section will discuss limitations in the current process used to select and prepare CNs for deployment and recent efforts to improve the process.

Chief Nurse Selection Process

The selection process for deploying CNs does not mirror the selection process for home-station MTFs. In fact, there is no deliberate process for sourcing deployed CNs. Since only current/former CNs of inpatient MTFs will have experienced the complexities of directing nursing operations across multiple clinical settings throughout an entire organization, it follows that they should form the pool of eligible theater hospital CN candidates. This is a critical issue based on clinical complexity and span of responsibility in the deployed environment. Colonels are authorized as CNs in all but one MTF with inpatient capability due to the complexity of providing competent and safe nursing care.¹ Chief nurses are competitively selected in a centralized board based on their performance, depth and breadth of training/experience.² In an effort to simplify deployment sourcing, the USAF Nurse Corps recently initiated a process to only award of the 46A AFSC to current/previous CNs or squadron commanders. If successful, this change will clearly identify by AFSC nurses qualified to serve as deployed CNs.

According to the most recent UTC manpower documents, there are no nurse corps colonel positions assigned against any operational unit type code throughout the USAF even though theater hospital nursing operations are more complex than our largest home-station inpatient MTFs.³ Based on today's contingency operations, the disconnect between the home-station/deployed grade requirements and selection processes needs further examination.

Over the past three years, development teams have sought to deliberately prepare tomorrow's leaders by designating individuals for specified educational opportunities and selecting individuals for specific career-broadening, operational and leadership positions.⁴ The full benefit of the development team's efforts will not be felt for the next three to five years. In the interim, the USAF Nurse Corps needs to ensure that CNs deployed to theater hospitals are properly prepared and sourced to ensure operational effectiveness.

Tasking Process

The Air Expeditionary Forces Center (AEFC) routinely tasks UTCs based on assignment-buckets and the MTF selects the individual to fill the requirement.⁵ For most positions, this process has worked sufficiently, however "high demand, low-density" assets require additional consideration for deployment. The "enabler" process is used to manage limited assets by removing the bucket-system's deployment limitations and increasing their availability for deployment.⁶ There are also certain leadership positions that require special consideration. For example, only current/former squadron commanders or those on the squadron commander selection list are selected for deployment as squadron commanders.⁷ This process very closely mirrors the home-station squadron commander selection process. In the AFMS, centralized boards meet annually to identify personnel eligible to compete not only for medical group/squadron commander, but also the following functional leadership positions:

- Chief Nurse (SGN)
- Hospital Administrator (SGA)
- Chief, Medical Staff (SGH)
- Chief, Dental Services (SGD)

The Air Force Personnel Center (AFPC) works directly with Surgeon General (SG) Consultants to coordinate clinical specialty assignments throughout the USAF. Until recently, no such

mechanism existed to deliberately coordinate clinical specialty assignments for deployments. In January 2007, Major General Thomas J. Loftus, Assistant USAF Surgeon General, Directorate for Health Care Operations (SG3) wrote a memo outlining a process called Consultant Balanced Deployments directing open communication between the AEFC, SG Consultants, and major commands to ensure better oversight and improve the method of choosing personnel for critical clinical positions.⁸ The USAF Nurse Corps should consider using this memorandum to establish a CN consultant to deliberately source CN deployment taskings.

Officers competing for home-station and deployed commander billets are screened through a central screening board (CSB) to ensure minimum requirements are met. Nurses competing for home-station CN assignments must first meet a Chief Nurse Selection Board (CNSB) before they can be designated as CN candidates.⁹ Every home-station MTF (hospital/clinic), no matter how small, drives a CN requirement and all but one MTF with inpatient capability has a stand-alone colonel CN authorization.¹⁰

Readiness Skills Verification (RSV)

The AFMS uses the Readiness Skills Verification Program (RSVP) to ensure personnel are competent to deploy. Each medical Air Force Specialty Code (AFSC) has RSVs identified and assessed at periodic intervals to determine competency.¹¹ The six major skill sets identified for nurse administrators (AFSC 46A) are as follows:¹²

- Standards of care/practice
 - Identifies and implements nursing practice consistent with standards of professional organizations, statutes, and regulations
 - Identifies and advocates for resources
- Environmental control
 - Develops, maintains and evaluates organizational systems to facilitate the delivery of nursing care
 - Employs appropriate surveillance, intervention and risk communication in response to prevalence and incidence of disease within the population

- Logistics- Demonstrate knowledge/proficiency with UTC equipment in allowance standards
- Clinical practice- Maintains currency in clinical practice as outlined in the 46N3 (clinical nurse) RSV
- Chemical/biological/radiological/nuclear/high-yield explosives (CBRNE)- Understands and applies the principles of management of CBRNE casualties
- Command- Possess knowledge to function in a variety of command and control settings

Unlike the American Nurses Association standards that delineate between the level of responsibility for nurse managers and nurse executives,¹³ the USAF 46A RSV simply lists deployment skills needed for all nurse administrators without accounting for the difference in responsibility levels. In a recent study by Sutto et al., respondents identified competencies and accompanying skills/knowledge/abilities required by Veterans Health Administration (VHA) nurse executives.¹⁴ The highest rated areas were:

- Ethical decision-making/conduct
- Ability to continuously learn
- Ability to lead change
- Skill in linking clinical outcomes to staffing
- Conflict resolution skills

The areas identified by Sutto et al. focused on competencies needed by nurse executives for daily nursing operations in VHA medical facilities. Although the study findings are not directly transferable, it identifies executive-level competencies that warrant further evaluation for relevance in contingency operations. The competencies in the VHA study most directly related were ethical decision-making/conduct and skill in linking clinical outcomes to staffing. Further study of recently deployed CNs from all services is recommended to establish baseline joint contingency CN competencies. The nurse executive competencies listed above point to higher-level understanding required to lead nursing operations across a complex health care organization rather than the tactical focus required by nurse managers.

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- ¹ United States Air Force Chief Nurse Directory, June 2007, USAF/SGN1.
- ² Col Vickie R. Moore, chief, Nurse Utilization and Education Branch, Headquarters Air Force Personnel Center, Medical Service Management Division, to Headquarter Senior NC Leadership, memorandum, 17 April 2007.
- ³ Air Force Manpower Agency. "UTC Manpower Details." <https://www.my.af.mil/gcss-af/afp40/USAF/ep/browse.do?programId=1381687&parentCategoryId=-2018632https://www.afma.randolph.af.mil/orgunits/MAS/WartimeReadiness/MANFOR.asp>, (accessed 18 January 2008).
- ⁴ Air Force Doctrine Document (AFDD) 1-1, *Leadership and Development*, 18 February 2004, page vii.
- ⁵ AFI 41-106, *Medical Readiness Planning and Training*, 2 December 2004, 7.
- ⁶ AFI 10-401, *Force Planning*, Dec 2006, 163.
- ⁷ Ibid, 48.
- ⁸ Major General Thomas J. Loftus, assistant surgeon general, Health Care Operations, Office of the USAF Surgeon General to ALMAJCOM/SG, memorandum, 4 Jan 2007.
- ⁹ AFI 46-101, *Nursing Services and Operations*, 17 August 2004, 2.
- ¹⁰ The only inpatient facility that does not have a colonel authorization is the 51st Medical Group at Osan AB, Korea with an average daily patient load of less than ten patients/daily.
- ¹¹ AFI 41-106, *Medical Readiness Planning and Training*, 2 December 2004, 25.
- ¹² AFMS Knowledge Exchange, "RSVP Checklists-Nurse Corps," AFMS Knowledge Exchange, <https://kx.afms.mil/kxweb/dotmil/kjFolderSearch.do?queryText=RSVPNC&functionalArea=RSVP&folder=RSVP+Checklists-Nurse+Corps> (accessed 21 January 2008).
- ¹³ American Nurses Association, *Scope and Standards for Nurse Administrators*, 54-55.
- ¹⁴ Natalie B. Sutto, Michael D. Knoell, Karin Zucker, Kenn Finstuen, A. David Mengelsdorf, "Executive Competencies of Nurses in the Veterans Health Administration," *Military Medicine* 173, (January 2008): 47-53.

Deployed Clinical Leadership Perspectives

Colonel Jill L. Sterling is a critical care physician, commander of the 96th Medical Operations Squadron at Eglin AFB, Florida and former commander of the medical operations squadron at Balad. When asked about the rank and requirement for a CN in a theater hospital, she stated that a Lt Col nurse might be able to run baseline operations. However, she underscored the need for an experienced, talented nurse executive not only for clinical operations in a deployed environment but to be a stabilizing/mentoring force for combat-stressed officers and enlisted alike. She emphasized the need for breadth of medical-surgical, operating room, critical care and aeromedical evacuation experience, as well as a depth of knowledge in practice standards and staffing requirements. Rank and experience go a long way toward working internal and joint/coalition nursing/throughput issues, and to providing balance against volatile emotions that inevitably occur. Colonel Sterling stated that a commitment to providing an experienced senior nurse to partner with physicians shows dedication to formulating a high-caliber team to deliver the best possible outcomes for our wounded heroes.¹

Colonel Florence A. Valley is the commander of the 45th Medical Group at Patrick Air Force Base, Florida and served as Balad CN in early 2006. She stated that the medical center environment requires advanced nursing clinical/administrative knowledge to manage multiple nursing subspecialties. Colonel Valley stated that CNs are uniquely qualified to assess the overall quality of nursing practice to include infection control, scope of practice, standard of care, ethical decisions, mental/physical health as well as "fit for practice" determinations. Experienced CNs are equipped with advanced education, critical thinking and problem solving skills essential for success in the operational environment. She stated that colonels are needed as facility size and operational complexity increases because nurse corps colonels are developed to

lead nursing operations in the most difficult and complex health care organizations. Colonel Valley stated that the nurse corps needs to ensure a ready-pool of qualified nursing leaders is available for every AEF Cycle through purposeful development of future nursing leaders.²

Colonel Julia E. Nelson is currently the CN at WHMC and former CN at Balad. She stated that the CN needs to be able to readily identify issues/constraints impacting patient flow. The CN understands who the key players are both within the organization and among outside agencies and is able to harness these resources to positively impact patient operations. When asked about the need to have a colonel CN, she stated that the deployed environment is a complex one involving joint operations, high operational tempo and unmatched clinical intensity. Colonel Nelson said that since only medical center CNs have similar experience, it is only prudent to take colonel CNs into the area of operations.³

Colonel Rose A. Layman is currently the commander of the 8th Medical Group at Kunsan AB, Korea and served as the Balad CN in late 2006. When asked about the need for a colonel CN, she remarked that the rank equates not only to experience in nursing, but experience in leadership which speaks of someone who has held CN, commander, and executive responsibilities. She continued by stating that a colonel possesses decision-making ability that can only be achieved through complex leadership roles and various patient care experiences accumulated throughout one's career.⁴

The views and recommendations of the clinical leaders are consistent with the Joint Commission and USAF standards and underscore the need for proven leadership due to the complexity and intensity of deployment operations. Colonel Sterling's statements highlight complexity of operations and the need to have a solid nurse executive to ensure positive patient outcomes. Colonel Valley, Colonel Nelson and Colonel Layman all highlighted the disconnect

between the level of nursing leadership at home-station compared to deployment and point to heightened need for senior leadership during contingencies.

¹ Col Jill L. Sterling, commander, 96th Medical Operations Squadron, Eglin AFB, FL, to the author, email 7 January 2008.

² Col Florence A. Valley, commander, 45 Medical Group, Patrick AFB, FL, to the author, email, 11 December 2007.

³ Col Julia A. Nelson, chief nurse, Wilford Hall Medical Center, San Antonio, TX, to the author, email, 12 December 2007.

⁴ Col Rose A. Layman, commander, 8th Medical Group, Kunsan AB, Korea, to the author, email 16 December 2007.

Conclusions

Recommendations

The following recommendations will align theater hospital nursing leadership requirements with existing USAF, Joint Commission, and American Nurses Association standards and improve the current sourcing process to ensure deployment of qualified CNs.

1. Establish a UTC that drives an EMEDS CN requirement to provide an equivalent level of clinical nursing leadership in theater hospitals as in our less complex home-station facilities. Include a remark in the mission capability statement requiring that individuals tasked as CN must have prior CN or squadron commander (Sq/CC) experience.
2. Limit award of the 46A AFSC to officers who have successfully served as either CN or squadron commander (Sq/CC). This will establish a pool of qualified CNs available to fill CN deployment taskings.
3. Limit theater hospital (EMEDS + 10 or greater) CN deployments to colonels who are current/former CNs or Sq/CCs.
4. Revise the 46A RSVs to highlight a broader organizational perspective. Consider adding an experiential component to ensure successful accomplishment of specific tasks. Chief nurses have a variety of backgrounds/experiences and the RSVs should highlight the need for deployment-focused operational, clinical and leadership competency.
5. Create a special experience indicator for use with the 46A AFSC to identify nurses with inpatient nursing leadership experience. Limited inpatient platforms have reduced the number of clinical nurses with inpatient experience which is essential for success in the deployed environment.

6. Add an instructional block/scenario to the Intermediate Executive Skills (IES) course highlighting CN leadership challenges in the deployed environment. Presently, this entry-level training focuses on home-station operations and needs to expand its scope to include deployment operations.
7. Develop a “virtual” CN toolkit. Invite former deployed CNs to attend a workshop to create a CN Handbook, templates for operating instructions, a self-inspection checklist, including links to references and subject matter experts.

Conclusion

There have been significant doctrinal changes since the EMEDS was first developed. The linear battlefield no longer exists, casualty flows have changed and joint operations require consistent capabilities among service theater hospitals. Casualties who receive care in today’s deployed USAF theater hospitals are most often civilians and ground forces involved in combat operations “outside the wire” rather than USAF personnel injured as a result of contingency airbase operations.

The Global War on Terrorism has become a sustainment operation. As of October 2007, the AF/SG3 put together a working group to “standardize care, maintain safety, and optimize the transition period between AEF rotations.”¹ This is the first step toward oversight of extended clinical operations in the deployed environment. It follows that if clinical operations are moving toward a home-station model, then executive operations should align as well. Consistency across the two environments will ensure qualified clinical leaders maintain oversight of critical functions. Since deployed operations are more clinically and administratively complex than home-station operations and since only colonel CNs have experience directing nursing

operations across complex health care organizations, it simply makes sense to deploy colonel CNs to USAF theater hospitals.

The SG personnel at CENTAF leaned forward by creating non-standard UTCs to augment the current EMEDS manpower detail to meet operational needs. This was an effective stop-gap measure to provide essential capabilities to the warfighter, but it does not allow the AFMS to adequately program the infrastructure to train and to develop leaders and specialists to continue to meet present and future contingency requirements. It is essential to institutionalize the non-standard UTCs and formally add them to the EMEDS UTC structure. Standardization of executive and clinical capabilities will ensure the infrastructure is available to support USAF contingency requirements.

The purpose of this paper is to justify the need to add a colonel CN requirement to the EMEDS manpower detail based on USAF and civilian guidance, doctrinal changes, and operational complexity. Some may believe this paper is an attempt to for the nurse corps to gain colonel authorizations. Rather, its purpose is to offer an objective, operationally-based, standards-driven justification for deploying the best-prepared nursing leaders to lead nursing operations in USAF theater hospitals.

The USAF needs to add a colonel CN to the EMEDS construct and implement a deliberate sourcing process similar to the one used to fill deployed commander positions. Given the overall reduction of inpatient platforms across the USAF it makes sense to build consistent clinical oversight into the EMEDS structure. These changes will direct the appropriate level of expertise in the CN position to ensure success of the theater hospital.

¹ Major General Thomas J. Loftus, Assistant Surgeon General, Health Care Operations, Office of the USAF Surgeon General to Distribution List of working group members, memorandum, 9 October 2007.

Appendix A

EMEDS Manpower Detail¹

| UTC | EMEDS increment | UTC Name | FUNC-ACCT-CD | AFSC-BASIC-NR | GRADE | DUTY-TITLE | QUANTITY |
|-------|-----------------|--------------------------|--------------|---------------|-------|-------------------|----------|
| FFMFS | 1 | Mobile Field Surgical Tm | 5220 | 044E3A | 04 | Emerg Svc Phys | 1 |
| FFMFS | 1 | Mobile Field Surgical Tm | 5234 | 045S3 | 04 | Surgeon | 1 |
| FFMFS | 1 | Mobile Field Surgical Tm | 5239 | 045B3 | 04 | Ortho Phys | 1 |
| FFMFS | 1 | Mobile Field Surgical Tm | 5240 | 045A3 | 04 | Anesthesiologist | 1 |
| FFMFS | 1 | Mobile Field Surgical Tm | 5240 | 046S3 | 03 | OR Nurs | 1 |
| FFEP1 | 1 | Exp Crit Care Tm | 5211 | 044M3 | 04 | Int Med Phys | 1 |
| FFEP1 | 1 | Exp Crit Care Tm | 5220 | 046N3E | 04 | Crit Care Nurs | 1 |
| FFEP1 | 1 | Exp Crit Care Tm | 5220 | 4H071 | | Resp Tech | 1 |
| FFPM1 | 1 | PAM Tm 1 | 5310 | 048A3 | 05 | Aero Spc Med Phys | 1 |
| FFPM1 | 1 | PAM Tm 1 | 5310 | 4N071C | | Med Tech | 1 |
| FFPM1 | 1 | PAM Tm 1 | 5311 | 043E3A | 04 | BEE | 1 |
| FFPM1 | 1 | PAM Tm 1 | 5313 | 043H3 | 04 | Pub Hlth | 1 |
| FFEP2 | 3 | C2 Tm | 5100 | 040C0A | 06 | CC | 1 |
| FFEP2 | 3 | C2 Tm | 5100 | 041A3 | 04 | Phys Ther | 1 |

| UTC | EMEDS increment | UTC Name | FUNC-ACCT-CD | AFSC-BASIC-NR | GRADE | DUTY-TITLE | QUANTITY |
|-------|-----------------|------------------|--------------|---------------|-------|---------------------------|----------|
| FFEP2 | 3 | C2 Tm | 5100 | 4A091 | | Admin Tech | 1 |
| FFEP2 | 3 | C2 Tm | 5530 | 4A171 | | Med Log Tech | 1 |
| FFEP2 | 3 | C2 Tm | 5530 | 4A271 | | BMET | 1 |
| FFEP2 | 3 | C2 Tm | 5570 | 4A071 | | Admin Tech | 1 |
| FFEP6 | 3 | Nurs Aug Tm | 5219 | 046N3 | 04 | Clin Nurs | 1 |
| FFEP6 | 3 | Nurs Aug Tm | 5219 | 4N071 | | Med Tech | 4 |
| FFPM2 | 3 | PAM Tm 2 | 5311 | 4B071 | | BEE | 1 |
| FFPM2 | 3 | PAM Tm 2 | 5313 | 4E071 | | Pub Hlth Tech | 1 |
| FFF0C | 3 | Dental Aug Team | 5421 | 047G3A | 04 | Dentist | 1 |
| FFF0C | 3 | Dental Aug Team | 5421 | 4Y071 | | Dental Tech | 1 |
| FFPCM | 3 | Med Prim Care Tm | 5223 | 044F3 | 04 | Fam Prac Phys | 1 |
| FFPCM | 3 | Med Prim Care Tm | 5223 | 4N051 | | Med Tech | 1 |
| FFPCM | 3 | Med Prim Care Tm | 5223 | 4N071 | | Med Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5100 | 4A071 | | Admin Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5140 | 4A051 | | Admin Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5219 | 046N3 | 03 | Clin Nurs | 2 |
| FFEP3 | 4 | 10 Bed Aug | 5219 | 046N3 | 04 | Clin Nurs | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5219 | 4N051 | | Med Tech | 8 |
| FFEP3 | 4 | 10 Bed Aug | 5219 | 4N071 | | Med Tech | 2 |
| FFEP3 | 4 | 10 Bed Aug | 5220 | 046N3J | 03 | ER Nurs | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5223 | 044F3 | 04 | Fam Prac Phys | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5240 | 4N151 | | Med Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5260 | 046N3E | 04 | Crit Care Nurs | 2 |
| FFEP3 | 4 | 10 Bed Aug | 5310 | 048R3 | 04 | Flt Surg (Res Aerosp Med) | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5512 | 4T071 | | Lab Tech | 1 |

| UTC | EMEDS increment | UTC Name | FUNC-ACCT-CD | AFSC-BASIC-NR | GRADE | DUTY-TITLE | QUANTITY |
|-------|-----------------|---------------|--------------|---------------|-------|-----------------|----------|
| FFEP3 | 4 | 10 Bed Aug | 5513 | 043P3 | 04 | Pharm Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5514 | 4R071 | | Rad Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5530 | 4A151 | | Med Log Tech | 1 |
| FFEP3 | 4 | 10 Bed Aug | 5530 | 4A251 | | Bio Med Eq Tech | 1 |
| FFPM3 | 4 | PAM Tm 3 | 5311 | 4B051 | | Bio Env Tech | 2 |
| FFPM3 | 4 | PAM Tm 3 | 5313 | 4E051 | | Pub Hlth Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5100 | 046A3 | 05 | Nurs Adm | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5140 | 041A3 | 03 | Med Svc Corps | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5219 | 046N3 | 03 | Clin Nurs | 2 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5219 | 046N3 | 04 | Clin Nurs | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5219 | 4N071 | | Med Tech | 2 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5219 | 4N091 | | Med Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5220 | 046N3J | 04 | ER Nurs | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5220 | 4N051 | | Med Tech | 3 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5221 | 042B3 | 04 | Phys Ther | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5224 | 044F3 | 04 | Fam Prac Phys | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5512 | 043T3A | 03 | Lab Officer | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5512 | 4T051 | | Lab Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5513 | 4P071 | | Pharm Tech | 1 |

| UTC | EMEDS increment | UTC Name | FUNC-ACCT-CD | AFSC-BASIC-NR | GRADE | DUTY-TITLE | QUANTITY |
|-------|-----------------|-----------------|--------------|---------------|-------|--------------------|----------|
| FFEP4 | 5 | 25 Bed Aug Tm | 5514 | 4R051 | | Rad Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5520 | 4D071 | | Diet Ther Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5530 | 4A151 | | Med Log Tech | 1 |
| FFEP4 | 5 | 25 Bed Aug Tm | 5560 | 4A051 | | Admin Tech | 3 |
| FFEP5 | 5 | Surgical Aug Tm | 5234 | 045S3 | 05 | Surgeon | 1 |
| FFEP5 | 5 | Surgical Aug Tm | 5240 | 046M3 | 04 | Nurs Anesth | 1 |
| FFEP5 | 5 | Surgical Aug Tm | 5240 | 046S3 | 04 | OR Nurs | 1 |
| FFEP5 | 5 | Surgical Aug Tm | 5240 | 4N171 | | Med Tech | 2 |
| FFF0C | 5 | Dental Aug Team | 5421 | 047G3A | 04 | Dentist | 1 |
| FFF0C | 5 | Dental Aug Team | 5421 | 4Y071 | | Dental Tech | 1 |
| FFCCU | 5 | 4-Bed ICU | 5260 | 044Y3 | 05 | Crit Care Med Phys | 1 |
| FFCCU | 5 | 4-Bed ICU | 5260 | 044Y3 | 04 | Crit Care Med Phys | 1 |
| FFCCU | 5 | 4-Bed ICU | 5260 | 046N3E | 03 | Crit Care Nurs | 4 |
| FFCCU | 5 | 4-Bed ICU | 5260 | 4H051 | | Resp Tech | 2 |
| FFCCU | 5 | 4-Bed ICU | 5260 | 4N051 | | Med Tech | 4 |

¹ Air Force Manpower Agency. "UTC Manpower Details." <https://www.my.af.mil/gcss-af/afp40/USAF/ep/browse.do?programId=1381687&parentCategoryId=-2018632https://www.afma.randolph.af.mil/orgunits/MAS/WartimeReadiness/MANFOR.asp.>, (accessed 18 January 2008).

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