NAVAL HEALTH RESEARCH CENTER

MEDICAL PLANNING FOR OPERATIONS OTHER THAN WAR (OOTW): DETERMINING UNIQUE PATIENT CONDITIONS, CLINICAL TASKS, AND SUPPLIES

E. D. Gauker
P. J. Konoske
K. Emens-Hesslink

Report No. 02-11

20040319 066

Approved for public release; distribution unlimited.

NAVAL HEALTH RESEARCH CENTER
P. O. BOX 85122
SAN DIEGO, CA 92186-5122

BUREAU OF MEDICINE AND SURGERY (MED-02)
2300 E ST. NW
WASHINGTON , DC 20372-5300

MEDICAL PLANNING FOR OPERATIONS OTHER THAN WAR (OOTW): DETERMINING UNIQUE PATIENT CONDITIONS, CLINICAL TASKS, AND SUPPLIES

Eleanor D. Gauker

Paula J. Konoske[1]

Kristee Emens-Hesslink

Naval Health Research Center
[1]Medical Modeling and Simulation Program
P.O. Box 85122
San Diego, CA 92186-5122

[2]GEO-Centers, Inc.
4640 Forbes Boulevard, Suite 120
Lanham, MD 20706

Report No. 02-11 was supported by the Office of Naval Research, Arlington, VA, under Work Unit No. 63706N M0095.001-60101. The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. Government. Approved for public release; distribution unlimited. This research has been conducted in compliance with all applicable Federal Regulations governing the Protection of Human Subjects in Research.

SUMMARY

Problem

Operations other than war (OOTW) and combat scenarios differ in doctrinal, cultural, political, personnel, and logistical aspects. Relying on the parameters of combat scenarios to plan medical requirements for OOTW missions might result in overstocking of some supplies and equipment while underestimating the requirements for others.

Objective

The goal of this study was to identify those diseases and injuries that occur during OOTW but not during combat operations, and to link them to corresponding treatment tasks and supply requirements. The ultimate objective of this research effort was to add an OOTW component to the Estimating Supplies Program (ESP), thus enhancing its value as a planning tool.

Approach

A literature search was conducted to find published disease and injury statistics representing a variety of OOTW scenarios, and this information was organized to form a database. Researchers compared the OOTW diagnoses with diseases and injuries that were already defined in the ESP model. The OOTW diagnoses that could not be matched to established codes were determined to be unique to OOTW. Researchers defined treatment protocols for these unique OOTW diagnoses. Medical subject matter experts were consulted for more-complex treatments. The clinical tasks that would be performed during treatment and the supplies required to accomplish these tasks for each OOTW patient condition (PC) were identified.

Results

The literature search produced 19 sources that included disease and injury information for OOTW. To organize these statistics, PCs used in ESP were identified either as trauma or nontrauma. The trauma PCs were divided into 18 categories, while the nontrauma PCs formed 20 categories. There were 15 OOTW diagnoses that did not match already-existing PCs, and all of them were nontraumatic. In addition, 22 new clinical tasks were introduced. Five of the tasks require no supplies, and six require no new supplies. Eight of the tasks introduce a total of 15 new items to the supply database. The three tasks related to eye surgery require extensive, specialized consumable supplies and equipment that are suggested as a supplement to the operating room setup that is already in place.

Discussion

Determining OOTW PCs and linking them to the clinical tasks and supply requirements that comprise treatment protocols is the basis for creating a planning module for ESP. To continue the process, a patient stream must be developed. In this report, the diagnoses were classified by type rather than by frequency to determine which diseases and injuries are unique to OOTW. Additional research is needed to quantify populations at risk and to calculate rates of occurrence for humanitarian assistance, disaster relief, and peacekeeping.

Medical Planning for Operations Other Than War (OOTW): Determining Unique Patient Conditions, Clinical Tasks, and Supplies

Background

The determination of medical requirements for military operations is an ongoing process. Planners consider the scenario, operational factors such as the geography and intensity of the mission. Medical factors they scrutinize include projected rates of injuries and diseases that are likely to affect US forces. In 1985, the joint services launched Deployable Medical Systems (DEPMEDS), a modular system designed to facilitate medical resource planning by allocating the supplies, equipment, and personnel required to provide treatment to an anticipated array of casualties falling within 319 patient conditions (PCs).[1]

Each PC represents an injury or illness that might occur during a combat scenario. Because they are used to determine the personnel, supplies, and equipment needed to treat them, PCs are quite descriptive. This level of detail enables DEPMEDS to incorporate medical factors, such as the severity, physical location, or other manifestations of the injury or disease, and these are reflected when planning for medical requirements.

The Naval Health Research Center (NHRC) has been conducting research into the planning aspect of medical operational readiness since 1994. NHRC researchers devised a standardized procedure to review and update the Fleet Marine Force Authorized Medical Allowance Lists (AMALs). This protocol links each PC with the tasks that are performed to treat it and the supplies needed to perform each task. A computer model generates updated AMAL lists that eliminate obsolete or overstocked items, and integrate upgraded supplies and equipment, thus keeping the AMALs current. In addition, the logistical footprint, or the weight and cube of the AMAL, is kept to a minimum. In fact, the footprint for AMALs reviewed by NHRC has been reduced by as much as 30%, while clinical capability has been enhanced.[2-6]

Based on this research, NHRC developed the Estimating Supplies Program (ESP), a user-friendly program designed to calculate the medical requirements of a specified operational scenario.[7] The user sets the scenario parameters and enters casualty flow data into ESP, either manually or by importing a patient stream from a casualty estimation program, such as FORECAS.[8] Sponsored by the Marine Corps Systems Command, ESP utilizes casualty estimates, level of care, and functional area to calculate the supplies and equipment necessary to provide care for the given patient distribution. The model has been enhanced to include scenarios and tasks for shipboard and dental PCs, and preventive medicine objectives that are not covered by the original DEPMEDS PCs. ESP is available to military planners via the Internet.[9]

Introduction

The Medical Readiness Strategic Plan-2004 (MRSP-2004) was initiated in 1998 as a response to changes in the global political situation. Since the late 1980s, there has been an increasing trend toward the use of US forces for military operations other than war (OOTW). MRSP-2004 has been implemented to define and clarify joint doctrine regarding OOTW, specifically addressing issues such as medical missions, roles, and functions. A new objective for the Military Health Services System, to "prepare for and maintain readiness for OOTW," was added to the mission of supporting deployed US forces.[10]

OOTW utilize US military capabilities across a wide range of operational scenarios short of war. OOTW differ from wartime operations in important ways. During war, the goal is to win, to achieve national objectives, and to conclude hostilities with as few casualties as possible. There are two broad categories of OOTW. The first category aims to deter war and resolve conflict and may involve combat. Some examples of this are peace enforcement, counterterrorism, raids and strikes, peacekeeping (PK), nation assistance, and counterinsurgency. The second category has the goal of promoting peace and supporting US civil authorities. Examples include freedom of navigation, counterdrug, humanitarian assistance (HA), disaster relief (DR), and US civil support.[11]

Medical planning for OOTW missions differs from planning for combat. For example, the lower intensity of OOTW decreases the risk factor for traumatic injury. The OOTW population at risk (PAR) is likely to include civilians who do not fit into the demographics of the young, fit, military population, and diseases and conditions of children, the elderly, and women are seen. Endemic diseases also must be considered, both in treating PAR and in protecting caregivers from infection. Triage during combat emphasizes surgery and orthopedics, while in OOTW, the masses of patients may preclude all but the most rudimentary treatment.[12]

The most well-defined OOTW mission can experience a phenomenon described as "mission creep." HA and DR missions by definition expect to care for civilians; thus, the large numbers of civilians presenting for treatment are considered in the planning stages. PK doctrine, however, may limit treatment to military personnel who are part of the mission. Therefore, medical planning focuses on PCs similar to those seen in combat operations. Mission creep occurs when the sporadic, less-intense nature of PK missions results in decreased demand for medical care. The medical department, particularly the dental department, begins to treat civilians during slow periods. Gradually, the mission "creeps" away from its defined purpose of treating military personnel.[13]

The levels of care seen in OOTW missions, particularly HA and DR, are different from those of operational scenarios. A comparison of combat and OOTW levels of care is shown in Table 1, where it can be seen that the main difference occurs at the First Echelon of care.

Table 1.
Comparison of Combat and OOTW Levels of Care

Echelon	Description	OOTW	Combat
1A	Field first aid	None	Buddy Aid
1A/1B	Mobile clinic visits outlying areas to provide rudimentary care	Field Clinic	None
1B	Stationary, sheltered, diagnostic and emergency care	General, Eye, Dental Clinics	Battalion Aid Station
2	Hospital setting with sick call, ward, pharmacy, lab, and surgery facilities	Hospital	Surgical Company

Incorporating OOTW parameters into ESP will broaden its usefulness as a planning tool. Because OOTW and combat scenarios differ in many important ways, using combat scenarios to plan OOTW missions might result in overstocking of some supplies and equipment while underestimating the requirements for others.

Objective

This report analyzes published OOTW disease and injury statistics. The goal of this study was to compare OOTW diagnoses with already-existing PCs to determine whether there are PCs, corresponding treatment tasks, and supply requirements that are unique to OOTW. The ultimate objective of this research effort was to add an OOTW component to ESP, thus enhancing its value as a planning tool.

Method

A literature search was conducted to find published disease and injury statistics representing a variety of OOTW scenarios, and this information was organized to form a database. To establish inter-rater reliability, two researchers independently mapped the OOTW diagnoses in the database to PC codes wherever a reasonable match was possible. The findings were reviewed, and those OOTW diagnoses that could not be mapped to PC codes were determined. Researchers then consulted on-line sources[14-23] to define treatment protocols for the unmapped OOTW diagnoses. Medical subject matter experts were consulted for more-complex treatments. Then the clinical tasks that would be performed during treatment for each OOTW PC were determined, and the supply requirements for the tasks were established.

Results and Discussion

The literature search produced 19 sources that included disease and injury information for the OOTW listed in Table 2.[24-40] To organize these statistics, the DEPMEDS PCs and those PCs created for ESP (detailed in Appendix A) were identified

either as trauma or nontrauma. The trauma PCs were divided into 18 categories, while the nontrauma PCs formed 20 categories. There were 15 OOTW diagnoses that did not match already-existing PCs, and all of them were nontraumatic.

Table 2.
Operations

Operation	Disaster Relief	Humanitarian Assistance	Peace-keeping	Raid/ Strike
Northridge Earthquake (1)[24]	✓			
Northridge Earthquake (2)[24]	✓			
Operation Pacific Haven (1996-1997)[25]		✓		
Sudan (1990-1994)[26]		✓		
Guatemala (February 1999)[27]		✓		
Rwanda (post-1994)[28]		✓		
Exercise Flash Canoe (1997) (1)[29]		✓		
Exercise Flash Canoe (1997) (2)[29]		✓		
Haiti (1997)[30]		✓		
Operation Provide Promise (9/92-3/94)[31]			✓	
Bosnia[32]			✓	
Bosnia-Herzegovina–Joint Guard[33]			✓	
Yugoslavia[34]			✓	
Operation Cooperative Nugget[35]			✓	
Croatia[36]			✓	
Operation Just Cause (1)[37]				✓
Operation Just Cause (2)[38]				✓
Somalia[39]				✓
Munich Oktoberfest Bombing 1980[40]				✓

New OOTW PCs. The diagnoses unique to OOTW represent conditions that might occur in a more diverse PAR than in combat scenarios, and, as seen in Table 3, include three pediatric conditions, pregnancy, and unsalvageable teeth, as well as less severe versions of already-existing PCs, such as hypertension and musculoskeletal complaints. Nutritional deficiencies such as anemia, malnutrition and dehydration also occur. Cataracts occur in an older population, and pterygium, another eye disorder, is more likely to be found in areas where people spend a great deal of time in bright sunlight. Pneumonia and tuberculosis are more serious conditions that have not yet been included in ESP. The table shows that human immunodeficiency virus (HIV) is listed under infectious diseases as an unmatched condition; however, issues concerning the treatment and diagnosis of HIV extend beyond the scope of OOTW and this report. A complete map of categories, PC/ESP codes, and OOTW diagnoses is presented in Appendix B.

Table 3.
OOTW Diagnoses That Did Not Match DEPMEDS and ESP Codes

Category	DEPMEDS/ESP Codes	OOTW Diagnoses That Did Not Match Codes in DEPMEDS or ESP
Circulatory	11; 258-260; 609; 615	• Hypertension, mild to moderate
Dental	800-834	• Unsalvageable tooth
Eye disorders	219-226; 600	• Cataract • Pterygium
Gastrointestinal	196-199; 243-246; 248-252; 256; 287; 606; 608; 610	• Gastroesophageal reflux disorder (GERD), mild to moderate
Infectious diseases	216; 263-264; 282-283; 329-334; 601	• Tuberculosis, pulmonary • HIV
Musculoskeletal	200-201; 262; 605	• Minor pain, including musculoskeletal, backache, and headache, due to tension, stress, or overuse and not associated with other conditions
Nutritional	none	• Anemia, iron deficiency, not resulting from other conditions • Dehydration due to loss, inadequate intake, or both and not associated with other conditions • Malnutrition due to inadequate intake
Ob/Gyn	291-295; 297; 299	• Pregnancy
Pediatric	none	• Well-baby exam • Childhood diseases • Immunizations/vaccines
Respiratory	232-236; 239-240	• Pneumonia

New OOTW Tasks. When linking treatment tasks to the OOTW PCs, established tasks were used whenever possible. In some instances, however, new tasks were added. The new tasks, along with the OOTW level of care at which they are performed, are summarized in Table 4, while complete listings of clinical tasks for the OOTW PCs are shown in Appendix C. The tasks that have been introduced for OOTW are, in most cases, nontechnical in nature. For example, OOTW intake/triage differs from operational triage in that the process is more an administrative channeling of patients than the evaluation and emergency treatment of casualties seen during combat. Clinical tasks, such as cataract and pterygium excision, and episiotomy, are linked with conditions that are most often seen in a diverse PAR.

New OOTW Supplies. Table 5 lists the OOTW tasks that do not require new supplies. Five of these require no supplies at all. These include range-of-motion testing and patient education, as well as tasks associated with pregnancy, such as taking a history, estimating fetal weight, and performing Leopold's maneuvers. Six OOTW tasks require no new supplies and are accomplished using items that are already in the database. For example, lung auscultation is associated with the taking of vital signs, and the same stethoscope is used for both. Similarly, the ophthalmic examination requires the same ophthalmoscope that is already part of the supply database. Supply requirements were kept to a minimum whenever possible. The 8 new tasks that require minimal new supplies are shown in Table 6, while the extensive supplies needed to perform cataract and pterygium excisions and eye anesthesia can be seen in Tables 7 and 8. Appendix D provides the complete list of established and new supplies that are linked to the OOTW

tasks, as well as their National Stock Numbers (NSNs) or part numbers and unabridged supply nomenclatures.

Table 4.
New Tasks Generated by OOTW PCs

Task No.	New Task	OOTW PC	OOTW Level of Care		
			Field	Clinic	Hospital
OTW01	OOTW intake/triage	All	✓	✓	✓
OTW02	Refer patient	All	✓	✓	✓
OTW03	Range-of-motion testing	Minor aches/pains	✓	✓	✓
OTW04	Auscultate lungs	Pneumonia	✓	✓	✓
OTW05	Ophthalmic exam	Cataract/pterygium		✓	✓
OTW06	Slit-lamp test	Cataract/pterygium		✓	✓
OTW07	Sedate patient	Cataract/pterygium			✓
OTW08	Anesthetize eye	Cataract/pterygium			✓
OTW09	Cataract excision	Cataract			✓
OTW10	Pterygium excision	Pterygium			✓
OTW11	Patient precautions	Tuberculosis		✓	✓
OTW12	Provider precautions	Tuberculosis		✓	✓
OTW13	Patient education	Tuberculosis	✓	✓	✓
OTW14	Dispense medication	Tuberculosis			✓
OTW15	Pregnancy history	Pregnancy	✓	✓	✓
OTW16	Perform Leopold's maneuvers	Pregnancy	✓	✓	✓
OTW17	Estimate fetal weight	Pregnancy	✓	✓	✓
OTW18	Assist delivery	Pregnancy	✓	✓	✓
OTW19	Perform episiotomy	Pregnancy			✓
OTW20	Administer epidural anesthesia	Pregnancy			✓
OTW21	Weigh and measure baby	Well-baby check	✓	✓	✓
OTW22	Nonsurgical tooth extraction	Dental caries	✓	✓	✓

Table 5.
OOTW Tasks That Do Not Require New Supplies

OOTW Task No. & Description	Supply Requirements
Task OTW03. Range-of-motion testing	No supplies needed
Task OTW04. Auscultate lungs	No new supplies needed
Task OTW05. Ophthalmic examination	No new supplies needed
Task OTW07. Sedate patient	No new supplies needed
Task OTW11. Patient precautions	No new supplies needed
Task OTW13. Patient education	No supplies needed
Task OTW14. Dispense medication	No new supplies needed
Task OTW15. Pregnancy history	No supplies needed
Task OTW16. Perform Leopold's maneuvers	No supplies needed
Task OTW17. Estimate fetal weight	No supplies needed
Task OTW22. Nonsurgical tooth extraction	No new supplies needed

Examination of Table 6 displays the 8 OOTW tasks other than eye surgery that utilize new supplies. Of the 12 new items, 5 are equipment (E) and 7 are consumable (C). The equipment includes a suggested personal digital assistant (PDA) or laptop computer to expedite intake and recordkeeping. A slit lamp is needed for ophthalmic examinations,

and the baby scale and tape measure are needed for well-baby exams. Except for the episiotomy scissors, all of these are used in noninvasive procedures. The consumables include forms and patient supplies, as well as anesthetics for epidural blocks, which are used only in a hospital setting.

Table 6.
New Supply Requirements at the Field, Clinic, and Hospital Levels for OOTW Tasks

OOTW Task	NSN/Part No.	New Supply	E/C	Field	Clinic	Hosp
OOTW intake/triage	New	OOTW intake form	C	✔	✔	✔
OOTW intake/triage	New	PDA or laptop	E	✔	✔	✔
Refer patient	New	OOTW referral form	C	✔	✔	✔
Slit-lamp test	6540014599226	Handheld slit lamp	E		✔	✔
Provider precautions	6532011536517	Isolation gown	C		✔	✔
Assist delivery	P/N 62110	Baby blanket	C	✔	✔	✔
Assist delivery	6530012285852	Surgical pack	C		✔	✔
Perform episiotomy	6515013418725	Episiotomy scissors	E		✔	✔
Administer epidural	6505001493500	Bupivacaine HCl inj	C			✔
Administer epidural	6505011210705	Fentanyl citrate inj	C			✔
Weigh and measure baby	P/N 32149	Baby scale	E		✔	✔
Weigh and measure baby	P/N KM48313	Tape measure	E		✔	✔

Eye surgeries are performed at the hospital level, and the specialized requirements for eye anesthesia, and cataract and pterygium excisions are listed in Tables 7 and 8. Although these tables list numerous new supply items, they represent the minimal requirements needed to perform cataract and pterygium excisions with the support of a

Table 7.
New Consumable Requirements for OOTW Eye Surgery Tasks

NSN/Product No.	Brief Description	NSN/Product No.	Brief Description
6505012366458	Lidocaine 2% inj, 10 ml vial	6505012803581	Ocufen .03%, 2.5 ml btl
6505002719220	Phenylephrine 2.5%, 15 ml	6505013041008	Dexamethasone ophth sol
6505005824737	Tetracaine HCl, 0.5%, 2 ml	6505013463066	Apraclonidine HCl ophth sol
6505008718289	Tropicamide 1%, 15 ml	6505013556475	Balanced Salt Solution, bag
6505000640724	Acetazolamide sodium inj	6505014703141	Miochol, 2 ml, sterile
6505001335843	Prednisolone acetate 1%	6505010057327	Mitomycin 5 mg vial
6505002260799	Hyaluronidase, 150 USP	6520013414043	Isodent tissue glue
6505008804949	Acetazolamide	6515013274842	McCannel suture, 10-0
6505009635355	Dexamethasone 4mg/ml	6530012685142	Sponge set
6505010904724	Phenylephrine HCl ophth sol	MTA4U0	IOLs, anterior chamber
6505010908125	Ocucoat	MC50BD,	IOLs, posterior chamber
6505011197693	Balanced Salt Solution 15ml	P/N J974H	Suture, vicryl, 8-0
6505011439509	Dexamethasone drops	P/N 9081G	Suture, prolene, 10-0, 4"
6505011566575	Diamox tabs, 250 mg	P/N 5977	Drape, plastic
6505012314806	Ceftazadime, 1 g vial	P/N 00-08680	Weck cells

fully equipped operating room (OR). An independent eye surgery unit would include extensive supplies for performing eye surgery and plastic surgery around the eye in

isolation of other support. These procedures would include tear duct surgery, eyelid reconstruction, cataracts, and pterygia.

Table 8.
New Equipment Requirements for OOTW Eye Surgery Tasks

NSN/Part No.	Brief Description	NSN/Part No.	Brief Description
6515013765179	Blade, crescent, angled	6516014630342	Cautery sleeve, sterile
6515013503568	Blade 3 mm slit angled	6515014630340	Coagulator, cordless
6515012503545	Blade, 15 deg/75 blade	6515013934185	Cystotome
6515010464303	Blade, 69B	6515014630353	Eraser tips for cautery
6515012915445	Blade, keratome	6515016027091	Extension set, 33"
6515012151026	Cannula, 27 gauge	6515012860405	Fluid administration set
6515011648882	Cannula, irrig\aspiration	P/N 1033	Glide, IOL lens
P/N 020-505	Cannula, Olive tip	P/N 33633-06	Gouge, Stille
P/N 44306-00	Cannula, Simcoe	6515007822614	Handle, knife blades
6515011157667	Forceps, .12 mm suture	6515007822616	Handle, Beaver blade
6515014621219	Forceps, Blaydes	6515012052365	Hook, muscle, Jameson
6515011397668	Forceps, Colibri	P/N OP0923-302	Hook, Sinskey
P/N E1620	Forceps, Kuhnt fixation	P/N OP20620	Irrigating loop, lens, vectis
P/N OP0911-992	Forceps, Masket	6515012148746	Lens extractors
6515013641432	Forceps, tying, curved	6515011205013	Needle driver, Castroviejo
6515013204473	Forceps, tying, straight	6515012069242	Retractors, iris, flexible
6515014696145	Forceps, Utrata	6515014827975	Spatula, cyclodialysis
6515014417251	Atkinson needle, retrobulbar	6515012056823	Speculum, lid, large
6515013702219	Scissors, blunt Westcott	6515012056821	Speculum, lid, small
6515011151732	Scissors, Castro corneal left	6540014587838	Tonometer, ophthalmic
6515011151731	Scissors, Castro corneal right	P/N 031-351	Bur, Lempert diamond
P/N 10113-11	Scissors, Dewecker, sharp	6515003447920	Handle, Bard-Parker
6515014828402	Scissors, straight, iris	6515014605954	Jaffe curved lid retractors
6515011249775	Scissors, Vannas capsulotomy	P/NE0999	Newell lid retractors

Conclusion

The purpose of defining scenarios for military medical planning is to account for differences in the intensity, geography, and demographics of unique operations. Some of the medical activities of OOTW are similar to those of wartime. For example, both scenarios may involve dealing with large displaced populations such as refugees or prisoners of –war. Mine injuries also occur during OOTW. The differences between OOTW and combat missions tend toward variations in patient demographics, demand for medical services, and the nature of the medical services provided.[13]

DEPMEDS was designed for combat scenarios,[1] where complex traumatic injuries are likely to occur, and the emphasis is on emergency care and evacuation. The patient population is composed of military personnel who are, for the most part, young and fit. Demands on the medical department vary, with periods of intense activity interspersed with relative quiet. Medical care may also be intense, with complex injuries requiring resuscitative treatment, emergency surgery, and eventual evacuation. OOTW, however, often involve diverse civilian populations, and the military units serving OOTW are likely to include females and medical personnel who are older than the typical

combat soldier. It is not unusual for caregivers to treat hundreds of patients each day[27, 30] who present with conditions that are not urgent, such as parasites, infectious diseases, and minor musculoskeletal complaints. Despite these differences, the military medical department is best equipped in terms of personnel, equipment, and medical resources, to handle OOTW.[41]

Planners need to consider OOTW needs in terms of supply differences, personnel required, and logistics. Medical supplies for OOTW might include antiparasitic medications, oral rehydration equipment, and treatments for endemic infectious diseases; vitamins for children and pregnant women are also important. Combat medical missions, conversely, require blood supplies and resuscitative equipment. OOTW usually require more primary care providers, pediatricians, and infectious disease specialists than combat scenarios.[12] Logistical considerations might include mission-specific modules to enhance AMALs that are configured for combat.

Determining OOTW PCs and linking them to the clinical tasks and supply requirements that comprise treatment protocols is the basis for creating a planning module for ESP. To continue the process, a patient stream must be developed. In this report, the diagnoses were classified by type rather than by frequency, to determine which diseases and injuries are unique to OOTW. Additional research is needed to quantify PAR and to calculate rates of occurrence for HA, DR, and PK operations. Empirical medical data from recent PK and peace enforcement operations, supplemented with peacetime data from regional treatment facilities and admissions data from previous conventional combat operations, have been used to provide estimated disease and injury rates.[42] The methods used to arrive at those estimates can be applied to the data elements defined in this report to establish a protocol for determining OOTW disease and injury rates. Following these efforts, logistical decisions for the deployment of the OOTW medical mission can be made.

References

1. Defense Medical Standardization Board. DEPMEDS Policy Guidelines and Treatment Briefs. Fort Detrick, MD: Defense Medical Standardization Board; 1996.

2. Galarneau MR, Mahoney KJ, Konoske PJ, Emens Hesslink KE. *Development of a Model for Predicting Medical Supply Requirements at the forward Echelons of Care: Preliminary Findings for Echelon II Laboratory and X-Ray Ancillaries.* San Diego, CA: Naval Health Research Center; 1997. 97-03.

3. Galarneau MR, Konoske PJ, Emens Hesslink KE, Pang G, Gauker ED. *Model for Predicting Medical Supply Requirements at the Forward Areas of Care: Battalion Aid Stations.* San Diego, CA: Naval Health Research Center; 1997. 97-28.

4. Galarneau MR, Pang G, Konoske PJ, Gauker ED. *Using a Model of Clinical Events to Determine Supply Requirements for Marine Corps Shock Surgical Team/Triage (SST) and Acute Care Ward Units.* San Diego, CA: Naval Health Research Center; 1998. 98-15.

5. Galarneau MR, Pang G, Konoske PJ. *Model for Predicting Marine Corps Expeditionary Force Preventive Medicine Materiel Requirements.* San Diego, CA: Naval Health Research Center; 1999. 99-2.

6. Gauker ED, Galarneau MR, Konoske PJ. *Evaluation of Pharmacy Supplies as a Function of Surgical Company Clinical Requirements.* San Diego, CA: Naval Health Research Center; 1999. 99-9.

7. Tropeano A. *ESP 2.00 User's Guide.* San Diego, CA: Naval Health Research Center; 2001.

8. Blood CG, Zouris JM, Rotblatt D. Using the Ground Forces Casualty Forecasting System (FORECAS) to Project Casualty Sustainment. San Diego, CA: Naval Health Research Center; 1997:36.

9. Naval Health Research Center. Estimating Supplies Program. Available at: http://www.nhrc.navy.mil/programs/esp. Accessed March 26, 2002.

10. Assistant Secretary of Defense for Health Affairs. Medical Readiness Strategic Plan (MRSP) 1998-2004. *DoD 5136.1-P.* Ft. Belvoir, VA: Defense Technical Information Center; 1998.

11. Joint Chiefs of Staff. Doctrine for Health Services Support in Joint Operations. *Joint Pub 4-02.* Washington, D.C.: Government Printing Office; 1995.

12. Baker MS, & Ryals PA. The medical department in military operations other than war. Part I. Planning for deployment. *Mil Med.* 1999 August 1999;164(8):572-579.

13. Davis LM, Hosek SD, Tate MG, Perry M, Hepler G, Steinberg P. Army Medical Support for Operations Other Than War. *Rand* [ONLINE]. Available at: www.rand.org/publications/MR/MR773.chap5.html. Accessed November 30, 2001.

14. Abrahamian FM & Wilke E. eMedicine: Anemia, Chronic. Available at: http://www.emedicine.com/emerg/topic734.htm. Accessed June 8, 2001.

15. Egland AG. eMedicine: Pediatrics, Dehydration. Available at: http://www.emedicine.com/emerg/topic372.htm. Accessed June 8, 2001.

16. Fisher MP & Trattler W. eMedicine: Pterygium. Available at: www.emedicine.com/oph/topic542.htm. Accessed November 1, 2001.

17. Ocampo VVD & Foster CS. eMedicine: Cataract, Senile. Available at: http://www.emedicine.com/oph/topic49.htm. Accessed October 2, 2001.

18. Patti M. M, Urs D. eMedicine: Gastroesophageal Reflux Disease (GERD). Available at: http://www.emedicne.com/med/topic857.htm. Accessed June 21, 2001.

19. Quintana EC & Shahidi H. eMedicine: Pediatrics, Mumps. Available at: http://www.emedicine.com/emerg/topic391.htm. Accessed July 16, 2001.

20. Stephen J. eMedicine: Pneumonia, Bacterial. Available at: http://www.emedicine.com/emerg/topic465.htm. Accessed October 30, 2001.

21. Hughey MJ. Virtual Naval Hospital. Operational Obstetrics & Gynecology, 2nd Edition: The Health Care of Women in Military Settings. *Virtual Naval Hospital.* Available at: www.vnh.org/OBGYN/. Accessed October 29, 2001.

22. Toth PP& Jothivijayarani,A. Virtual Hospital: University of Iowa Family Practice Handbook, 3rd Edition, Chapter 8: Obstetrics. Available at: www.vh.org/Providers/ClinRef/FPHandbook;Chapter08. Accessed October 16, 2001.

23. WebMD. Web MD Health: Medical Library; Medical Encyclopedia. Available at: http://my.webmd.com/content/asset/. Accessed June 8, 2001.

24. Teeter DS. Illnesses and injuries reported at Disaster Application Centers following the 1994 Northridge Earthquake. *Mil Med.* 1996;161(9):526-530.

25. Rumbaugh JR. Operation Pacific Haven: humanitarian medical support for Kurdish evacuees. *Mil Med.* 1998;163(5):269-271.

26. Griekspoor A, Sondorp E, Vos T. Cost-effectiveness analysis of humanitarian relief interventions: Visceral leishmaniasis treatment in Sudan. *Health Policy and Planning.* 1999;14(1):70-76.

27. Gauker E, Konoske PJ. *Documenting patient encounters during a humanitarian assistance mission to Guatemala.* San Diego, CA: Naval Health Research Center; 2001. 01-13.

28. Antequera MG, Suarez-Varela MM. Lessons on humanitarian assistance. *Bulletin of the World Health Organization.* 1999;77(7):607-608.

29. Baker MS, & Ryals, P. A. The medical department in military operations other than war. Part II: Medical civic assistance program in Southeast Asia. *Mil Med.* 1999 September 1999;164(9):619-625.

30. Gauker ED, Covey DC, Emens-Hesslink KE, Moya NL, Konoske PJ. A descriptive analysis of patient encounter data from the Fleet Hospital FIVE humanitarian relief mission in Haiti. *Mil Med.* 2000;165(5):337-345.

31. Gauker ED, Reed RJ. *Medical Diagnoses in Operations Other Than War(OOTW): Relationship to DEPMEDS Patient Conditions.* San Diego, CA: Naval Health Research Center; 1997. 97-27.

32. Ternus MP. Bosnia and Kosovo: aeromedical evacuation in the initial stages of deployment. *Aviat Space Environ Med.* 2001;72(4):357-360.

33. McKee KT, Jr., Kortepeper, M. G., Ljaamo, S. K. Disease and nonbattle injury among United States soldiers deployed in Bosnia-Herzegovina during 1997: Summary primary care statistics for operation joint guard. *Military Medicine.* 1998 November 1998;163(11):733-742.

34. Covey DC, Lurate RB, Hatton CT. Field hospital treatment of blast wounds of the muscoloskeletal system during the Yugoslav civil war. *Journal of Orthopaedic Trauma.* 2000;14(4):278-286.

35. Jerant AF, Epperly TD, Marionneaux RD. Medical support for Operation Cooperative Nugget '95: joint readiness training in the post-cold war era. *Mil Med.* 1997;162(11):720-725.

36. Jankovic S, Busic Z, Primorac D. Spine and spinal cord war injuries during the war in Croatia. *Mil Med.* 1998;163(12):847-849.

37. Parsons TW, 3rd, Lauerman WC, Ethier DB, et al. Spine injuries in combat troops--Panama, 1989. *Mil Med.* 1993;158(7):501-502.

38. Miser WF, Lillegard, W. A., & Doukas, W. C. Injuries and illnesses incurred by an army ranger unit during operations just cause. *Military Medicine.* 1995;160(8):373-380.

39. Mabry RL, Holcomb, J. B., Baker, A. M., Cloonan, C. C., Uhorchak, J. M., Perkins, D. E., Canfield, A. J., & Hagmann, J. H. United States army rangers in Somalia: An analysis of combat casualties on an urban battlefield. *The Journal of Trauma: Injury, Infection, and Critical Care.* September, 2000 2000;49(3):515-529.

40. Konzert-Wenzel J, Bartels H. Terrorist bomb explosion at 1980 oktoberfest in Munich. *Disaster Medicine.* 1983;1(Fall):347-351.

41. Ryals PA, Baker MS. Military medicine in operations other than war. Part II: Humanitarian relief missions for Naval Reserve fleet hospitals. *Mil Med.* 1996;161(9):502-504.

42. Zouris JM, Walker GJ, Blood CG. Projection of Patient Condition Code Distributions for Military Personnel During Nonconventional Operations. San Diego, CA: Naval Health Research Center;

APPENDIX A

DEPMEDS and ESP PC List

Appendix A – DEPMEDS and ESP PC List

*PC#	PC DESCRIPTION
001	Cerebral concussion closed with/without nondepressed linear skull fracture severe – loss of consciousness from 2 to 12 hours
002	Cerebral concussion closed with/without nondepressed linear skull fracture moderate – loss of consciousness less than 2 hours
003	Cerebral contusion closed with/without nondepressed linear skull fracture severe – loss of consciousness greater than 24 hours with focal neurological deficit
004	Cerebral contusion closed with/without nondepressed linear skull fracture moderate – loss of consciousness from 12–24 hours without focal neurological deficit
005	Cerebral contusion closed with intracranial hematoma with/without nondepressed linear skull fracture – severe – large hematoma (including epidural hematoma) with rapidly deteriorating comatose patient
006	Cerebral contusion closed with nondepressed linear skull fracture severe – loss of consciousness greater than 24 hours with/without focal neurological deficit
007	Cerebral contusion closed with depressed skull fracture severe – with associated intracerebral hematoma and/or massive depression
008	Cerebral contusion closed with depressed skull fracture moderate – no associated hematoma or significant effect from depression
009	Cerebral contusion with open skull fracture severe – with intracranial fragments and/or depressed skull fracture; eyelid and eyeball laceration with retained intraocular foreign body
010	Cerebral contusion with open skull fracture moderate – without intracranial fragments and/or depressed skull fracture
011	Intracranial hemorrhage spontaneous nontraumatic all cases
012	Not assigned
013	Wound scalp open without cerebral injury or skull fracture severe – scalped with avulsion of tissue
014	Wound scalp open without cerebral injury or skull fracture moderate – scalp laceration
015	Fracture facial bones closed exclusive of mandible severe – multiple fractures
016	Fracture facial bones closed exclusive of mandible moderate – single fracture
017	Wound face jaws and neck open lacerated with associated fractures excluding spinal fractures severe – with airway obstruction
018	Wound face jaws and neck open lacerated with associated fractures excluding spinal fractures moderate – without airway obstruction; eyelid and eyeball laceration with retained intraocular foreign body
019	Wound face and neck open lacerated contused without fractures severe – with airway obstructions and/or major vessel involvement
020	Wound face and neck open lacerated contused without fractures moderate – without airway obstruction or major vessel involvement
021	Eye wound severe – loss of intraocular fluid with/without retinal detachment, with severe lid laceration, eye not salvageable

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
022	Eye wound lacerated moderate – without retinal detachment or retinal injury no foreign body retained without loss of vitreous fluid patient has hyphema eye salvageable
023	Hearing impairment severe
024	Hearing impairment moderate
025	Fracture spine closed without cord damage unstable lesion
026	Fracture spine closed without cord damage stable lesion
027	Fracture spine closed with cord damage cervical spine with respiratory involvement
028	Fracture spine closed with cord damage below cervical spine (progressive)
029	Fracture spine open with cord damage cervical spine with respiratory involvement
030	Fracture spine open with cord damage below cervical spine (progressive)
031	Intervertebral disc disorders with nerve root compression resistant to bed rest/traction
032	Intervertebral disc disorders with nerve root compression responding to bed rest/traction
033	Strains and sprains sacroiliac region severe – nonambulatory
034	Strains and sprains sacroiliac region moderate – ambulatory
035	Burn thermal superficial head and neck greater than 5% but less than 10% of total body area and/or eye involvement
036	Burn thermal superficial head and neck less than 5% of total body area and no eye involvement
037	Burn thermal partial thickness head and neck greater than 5% but less than 10% of total body area and/or eye involvement
038	Burn thermal partial thickness head and neck less than 5% of total body area and no eye involvement
039	Burn thermal full thickness head and neck greater than 5% but less than 10% of total body area with eye involvement
040	Burn thermal full thickness head and neck less than 5% of total body area and no eye involvement
041	Fracture clavicle closed all cases
042	Wound shoulder girdle open with bone injury severe – joint involvement
043	Wound shoulder girdle open with bone injury moderate – no joint involvement
044	Fracture humerus closed upper shaft all cases
045	Wound upper arm open penetrating lacerated without fracture severe – with nerve and/or vascular injury
046	Wound upper arm open penetrating lacerated without fracture moderate – without nerve or vascular injury
047	Wound upper arm open with fractures and nerve and vascular injury arm nonsalvageable
048	Wound upper arm open with fractures and nerve injury no vascular injury arm salvageable
049	Fracture radius and ulna closed severe – shafts of bones
050	Fracture radius and ulna closed moderate – Colles fracture

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
051	Wound forearm open lacerated penetrating without bone nerve or vascular injury with major loss of muscle tissue severe requiring major debridement
052	Wound forearm open lacerated penetrating without bone nerve or vascular injury moderate – not requiring major debridement
053	Wound forearm open lacerated penetrating with fracture and with nerve and vascular injury forearm not salvageable
054	Wound forearm open lacerated penetrating with fracture and with nerve and vascular injury forearm salvageable
055	Fracture hand or fingers closed severe – requiring closed reduction
056	Fracture hand and/or fingers closed moderate – not requiring closed reduction
057	Wound hand and/or fingers open lacerated without fractures severe – superficial and deep tendon involvement
058	Wound hand and/or fingers open lacerated without fractures moderate – no tendon involvement or limited to sublimis tendon involvement
059	Wound hand open lacerated contused crushed with fracture(s) all cases – involving fractures of carpals and/or metacarpals
060	Wound fingers open lacerated contused crushed with fracture(s) of phalangeals requiring rehabilitation
061	Crush injury upper extremity severe – limb not salvageable
062	Crush injury upper extremity moderate – limb salvageable
063	Not assigned
064	Dislocation shoulder closed all cases
65	Dislocation/fracture elbow closed acute all cases
066	Not assigned
067	Dislocation hand or wrist closed acute
068	Dislocation fingers closed acute
069	Amputation hand traumatic complete all cases
070	Amputation forearm traumatic complete all cases
071	Amputation full arm traumatic complete all cases
072	Sprain wrist closed acute all cases
073	Sprain thumb closed acute severe
074	Sprain fingers closed acute moderate – no thumb involvement
075	Burn thermal superficial upper extremities greater than 10% but less than 20% of total body area involved
076	Burn thermal superficial upper extremity less than 10% of total body area involved
077	Burn thermal partial thickness upper extremities greater than 10% but less than 20% of total body area involved
078	Burn thermal partial thickness upper extremity less than 10% of total body area involved
079	Burn thermal full thickness upper extremities greater than 10% but less than 20% of total body area involved

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
080	Burn thermal full thickness upper extremity less than 10% of total body area involved
081	Fracture ribs closed severe – multiple fractures
082	Fracture rib(s) closed moderate
083	Injury lung closed (blast crush) with pneumohemothorax severe – one lung with pulmonary contusion and acute severe respiratory distress
084	Injury lung closed (blast crush) with pneumohemothorax moderate – one lung with pulmonary contusion and respiratory distress
085	Wound thorax (anterior or posterior) open superficial lacerated contused abraded avulsed requiring major debridement
086	Wound thorax (anterior or posterior) open superficial lacerated contused abraded avulsed not requiring major debridement
087	Wound thorax (anterior or posterior) open penetrating with associated rib fractures and pneumohemothorax acute severe respiratory distress
088	Wound thorax (anterior or posterior) open penetrating with associated rib fractures and pneumohemothorax moderate respiratory distress
089	Not assigned
090	Burn thermal superficial trunk greater than 20% but less than 30% of total body area involved
091	Burn thermal superficial trunk greater than 10% but less than 20% of total body area involved
092	Burn thermal partial thickness trunk greater than 20% but less than 30% of total body area involved
093	Burn thermal partial thickness trunk greater than 10% but less than 20% of total body area involved
094	Burn thermal full thickness trunk greater than 20% but less than 30% of total body area involved
095	Burn thermal full thickness trunk greater than 10% but less than 20% of total body area involved
096	Wound abdominal wall (anterior or posterior) lacerated abraded contused avulsed without entering abdominal cavity severe – requiring major debridement
097	Wound abdominal wall (anterior or posterior) lacerated abraded contused avulsed without entering abdominal cavity not requiring major debridement
098	Wound liver closed acute (crush fracture) major liver damage
099	Wound liver closed acute (crush fracture) minor liver damage
100	Wound spleen closed acute (crush fracture) all cases
101	Wound abdominal cavity open with lacerating penetrating perforating wound to the large bowel
102	Wound abdominal cavity open with lacerating penetrating perforating wound to the small bowel without major or multiple resections
103	Wound abdominal cavity open with penetrating perforating wound of liver major damage

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
104	Wound abdominal cavity open with penetrating perforating abdominal wound with lacerated liver
105	Wound abdominal cavity open with penetrating perforating wound of spleen
106	Wound abdominal cavity open with lacerated penetrated perforated wound with shattered kidney
107	Wound abdominal cavity open with lacerated penetrating perforating wound with lacerated kidney initially repaired but subsequent nephrectomy
108	Wound penetration of pelvis with severe organ damage
109	Wound penetration of pelvis with moderate organ damage
110	Wound buttocks severe – open lacerated penetrating perforating and avulsed
111	Wound buttocks moderate – open lacerated contused and abraded
112	Displaced fracture of pelvis closed with associated soft tissue damage and pelvic organ damage
113	Nondisplaced fracture of pelvis closed with associated soft tissue damage
114	Wound abdomen open with pelvic fracture and penetrating perforating wounds to multiple pelvic structures (male or female)
115	Wound abdomen open with pelvic fracture and penetrating perforating wounds to pelvic colon only (male or female)
116	Wound external genitalia male severe – lacerated avulsed crushed
117	Wound external genitalia male moderate – abraded and contused
118	Wound external genitalia female severe – lacerated avulsed crushed
119	Wound external genitalia female moderate – abraded contused
120	Fracture closed femur shaft all cases
121	Wound thigh open without fracture nerve or vascular injury requiring major debridement
122	Wound thigh open without fracture nerve or vascular injury not requiring major debridement
123	Wound thigh open lacerated penetrating perforating with fracture and nerve/vascular injury limb not salvageable
124	Wound thigh open lacerated penetrating perforating with fracture and nerve and/or vascular injury limb salvageable
125	Wound knee open lacerated penetrating perforating with joint space penetration shattered knee
126	Wound knee open lacerated penetrating perforating with joint space penetration articular cartilage damage no bone injury
127	Fracture closed tibia and fibula shaft all cases
128	Wound lower leg open lacerated penetrating perforating without fractures requiring major debridement
129	Wound lower leg open lacerated penetrating perforating without fractures not requiring major debridement
130	Wound lower leg open lacerated penetrating perforating with fracture and nerve/vascular injury limb not salvageable
131	Wound lower leg open lacerated penetrating perforating with fracture and nerve and/or vascular injury limb salvageable
132	Fracture ankle/foot closed displaced requiring reduction
133	Fracture ankle/foot closed nondisplaced not requiring reduction

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
134	Wound ankle foot toes open lacerated contused without fractures but requiring major debridement
135	Wound ankle foot toes open lacerated contused without fractures not requiring major debridement
136	Wound ankle foot toes open penetrating perforating with fractures and nerve/vascular injury limb not salvageable
137	Wound ankle foot toes open penetrating perforating with fractures and nerve and/or vascular injury limb salvageable
138	Crush injury lower extremity limb not salvageable
139	Crush injury lower extremity limb salvageable
140	Dislocation hip closed acute all cases
141	Tear ligaments knee acute complete rupture
142	Tear ligaments knee acute incomplete rupture
143	Dislocation toes closed acute all cases
144	Amputation foot traumatic complete all cases
145	Amputation below knee traumatic complete all cases
146	Amputation traumatic complete requiring hip disarticulation
147	Amputation above knee traumatic complete
148	Sprain ankle closed acute with complete ligament rupture
149	Sprain ankle closed acute grade 2 incomplete ligament rupture
150	Burn thermal superficial lower extremities and genitalia greater than 30% but less than 40% of total body area involved
151	Burn thermal superficial lower extremity and genitalia greater than 15% but less than 30% of total body area involved
152	Burn thermal partial thickness lower extremities and genitalia greater than 30% but less than 40% of total body area involved
153	Burn thermal partial thickness lower extremity and genitalia greater than 15% but less than 30% of total body area involved
154	Burn thermal full thickness lower extremities and genitalia greater than 30% but less than 40% of total body area involved
155	Burn thermal full thickness lower extremity and genitalia greater than 15% but less than 30% of total body area involved
156	Blisters hand fingers foot toes due to friction acute moderate all cases
157	Insect bites and stings (unspecified body area) with systemic symptoms and/or respiratory difficulty
158	Bites and stings (unspecified body area) moderate localized symptoms
159	MIW brain and chest with sucking chest wound and pneumohemothorax
160	MIW brain and abdomen with penetrating perforating wound colon
161	MIW brain and abdomen with penetrating perforating wound kidney
162	MIW brain and abdomen with penetrating perforating wound bladder
163	MIW brain and abdomen with shock and penetrating perforating wound spleen
164	MIW brain and abdomen with shock and penetrating perforating wound liver

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
165	MIW brain and lower limbs requiring bilateral above knee amputations
166	MIW chest with pneumohemothorax and abdomen with penetrating wound colon
167	MIW chest with pneumohemothorax and abdomen with penetrating perforating wound kidney bladder
168	MIW chest with pneumohemothorax and abdomen with perforating wound bladder
169	MIW chest with pneumohemothorax and abdomen with penetrating perforating wound spleen
170	MIW chest with pneumohemothorax and abdomen with penetrating perforating wound liver
171	MIW chest with pneumohemothorax and limbs with fracture and vascular injury
172	MIW abdomen with penetrating perforating wound of colon and bladder
173	MIW abdomen with penetrating perforating wound of colon and spleen
174	MIW abdomen with penetrating perforating wound of colon and liver
175	MIW abdomen and limbs with penetrating perforating wound of colon and open fracture and neurovascular injury of salvageable lower limb
176	MIW abdomen and pelvis with penetrating perforating wound of liver and kidney
177	MIW abdomen and pelvis with penetrating perforating wounds of spleen and bladder
178	MIW abdomen pelvis limbs with fracture and neurovascular injury limb salvageable and penetrating wound kidney
179	MIW abdomen pelvis limbs without fracture or neurovascular injury and penetrating perforating wound bladder
180	MIW abdomen and lower limbs with fracture and nerve injury with penetrating wound of spleen with full thickness burns to greater than 20% of TBSA
181	MIW abdomen and limbs without fracture or nerve injury with penetrating wound of liver
182	MIW chest with pneumohemothorax soft tissue injury to upper limbs and penetrating wound of brain
183	MIW chest with pneumohemothorax soft tissue injury to upper limbs and abdomen with wound of colon
184	MIW chest with pneumohemothorax pelvis and abdomen with wound of colon and bladder
185	MIW abdomen and chest with multiple organ damage
186	Multiple nonperforating fragment wounds of skin and soft tissue
187	Trench foot immersion foot severe – vesicle formation
188	Trench foot immersion foot moderate – no vesicle formation
189	Not assigned
190	Frostbite full skin thickness or deeper involvement
191	Frostbite less than full skin thickness
192	Hypothermia all cases
193	Heat stroke

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
194	Heat exhaustion
195	Heat cramps all cases
196	Appendicitis acute with perforation rupture peritonitis
197	Appendicitis acute without perforation rupture peritonitis
198	Inguinal hernia complicated direct or indirect sliding incarceration of bowel
199	Inguinal hernia uncomplicated direct or indirect no sliding no incarceration of bowel or bladder
200	Internal derangement of knee chronic with torn meniscus and/or ligament laxity
201	Strain lumbosacral sacroiliac joint chronic all cases
202	Eczema dermatitis seborrheic contact others affecting weight bearing or pressure areas
203	Eczema dermatitis seborrheic contact others not affecting weight bearing areas
204	Boils furuncles pyoderma requiring surgery
205	Boils furuncles pyoderma all other cases
206	Cellulitis involving face or weight bearing areas
207	Cellulitis other than face or weight bearing areas
208	Dermatophytosis severe – affecting feet
209	Dermatophytosis all other cases
210	Pediculosis all cases
211	Scabies all cases
212	Pilonidal cyst/abscess requiring major excision
213	Pilonidal cyst/abscess requiring minor incision
214	Ingrown toenails bilateral with secondary infections unresolvable at Echelon 2
215	Ingrown toenails without secondary infection
216	Herpes simplex and zoster without encephalitis all types all cases
217	Not assigned
218	Not assigned
219	Hyperhidrosis all cases
220	Blepharitis all cases
221	Conjunctivitis severe all cases
222	Conjunctivitis moderate all cases
223	Corneal ulcer
224	Corneal abrasion

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
225	Iridocyclitis acute marked visual impairment
226	Iridocyclitis acute minimal visual impairment
227	Refraction and accommodation disorders refraction required
228	Refraction and accommodation disorders replacement of spectacles required
229	Otitis externa all cases
230	Otitis media acute suppurative all cases
231	Not assigned
232	Allergic rhinitis all cases
233	Upper respiratory infections acute including tonsillitis all cases
234	Bronchitis acute all cases
235	Asthma with disabling symptoms or repeated attacks
236	Asthma other cases
237	Not assigned
238	Not assigned
239	Acute respiratory disease severe
240	Acute respiratory disease moderate
241	Not assigned
242	Not assigned
243	Food poisoning all organisms disabling symptoms
244	Food poisoning all organisms moderate symptoms
245	Diarrheal disease severe
246	Diarrheal disease moderate
247	Upper gastrointestinal hemorrhage gastritis or ulcer
248	Dyspepsia acute all cases
249	Peptic ulcer gastric or duodenal penetrating and/or perforating
250	Peptic ulcer gastric or duodenal uncomplicated
251	Regional ileitis disabling symptoms unresponsive to treatment
252	Regional ileitis responds to treatment
253	Helminthiasis all cases
254	Not assigned
255	Migraine all cases

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
256	Hemorrhoidal disease all cases
257	Not assigned
258	Severe hypertension
259	Ischemic heart disease
260	Phlebitis deep vein involvement
261	Not assigned
262	Tenosynovitis elbow wrist shoulders etc.
263	Meningo–encephalitis uncomplicated
264	Meningo–encephalitis complicated
265	Near drowning without cervical spine injury or hypothermia all cases
266	Toxic inhalation including burn–related respiratory injuries severe all cases
267	Not assigned
268	White phosphorus burns resultant partial thickness burns < 40% TBSA all cases
269	Sexually transmitted diseases (STD) urethritis
270	Sexually transmitted diseases (STD) genital ulcers and/or adenopathy
271	Sexually transmitted diseases (STD) complicated
272	Glomerulonephritis acute
273	Glomerulonephritis chronic
274	Pyelonephritis acute secondary to obstruction
275	Pyelonephritis acute no obstruction
276	Nephrotic syndrome all cases
277	Ureteral calculus causing obstruction impacted
278	Ureteral calculus not causing obstruction
279	Epididymitis cystitis prostatitis acute all cases
280	Balanoposthitis all cases
281	Not assigned
282	Infectious mononucleosis all cases
283	Hepatitis infectious viral all cases
284	Not assigned
285	Cholecystitis acute with stones all cases
286	Pancreatitis acute all cases

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
287	Cirrhosis all cases
288	Not assigned
289	Neoplasms malignant
290	Neoplasms benign
291	Abnormal uterine bleeding (Not included in calculation of BAS wartime supplies)
292	Dysmenorrhea amenorrhea (Not included in calculation of BAS wartime supplies)
293	Pelvic inflammatory disease (PID) all cases (Not included in calculation of BAS wartime supplies)
294	Cervicitis endocervicitis with symptomatic leukorrhea (Not included in calculation of BAS wartime supplies)
295	Vulvovaginitis (Not included in calculation of BAS wartime supplies)
296	Not assigned
297	Tubal pregnancy all cases (Not included in calculation of BAS wartime supplies)
298	Not assigned
299	Abortion spontaneous with hemorrhage (Not included in calculation of BAS wartime supplies)
300	Not assigned
301	Psychosis
302	Conduct disorders
303	Non–psychotic mental disorders
304	Stress reaction severe unstable slow improvement
305	Stress reaction severe stable slow improvement
306	Alcohol dependency syndrome moderate
307	Alcohol misuse simple intoxication
308	Drug dependency (other than alcohol) severe
309	Drug misuse (other than alcohol) mild or moderate
310	Stress reaction mild/moderate
311	Eye wound lacerated penetrated with retinal injury eye salvageable
312	Wound knee open lacerated penetrating perforating with joint space penetration no bone or articular cartilage
313	Wound abdominal cavity open with lacerated penetrating perforating wound kidney moderate – kidney salvageable
314	Stress reaction severe unstable delayed improvement
315	Stress reaction severe unstable persisting
316	Alcohol dependency severe – impending or actual DTs
317	Drug misuse (other than alcohol) severe – atypical no dependency

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
318	Stress reaction severe – rapid improvement
319	Wound fingers open lacerated contused crushed with fracture(s) of phalangeals not requiring rehabilitation
320	Dislocation/subluxation temporomandibular joint without fracture chronic requiring correction
321	Dislocation/subluxation temporomandibular joint without fracture acute initial injury
322	Fracture mandible with/without oral laceration without airway involvement unstable severe requiring open reduction
323	Fracture mandible with/without oral laceration without airway involvement mild displacement stable
324	Stress reaction severe stable – delayed improvement
325	Stress reaction severe stable persisting
326	Not assigned
327	Not assigned
328	Animal bites and rabies exposure
329	Trachoma all cases
330	Schistosomiasis all cases
331	Malaria severe – all species
332	Malaria moderate – all species
333	Febrile illness acute severe – except malaria and pneumonia
334	Febrile illness acute moderate
335	Snake bite
336	Not assigned
337	Not assigned
338	Not assigned
339	Cutaneous ulcers including leishmaniasis
340	Not assigned
341	Not assigned
342	Not assigned
343	Not assigned
344	Not assigned
345	Not assigned
346	Eye wound directed energy induced (laser) severe of macula and/or optic nerve with vitreous blood severe visual loss one or both eyes

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
347	Eye wound directed energy induced (laser/rfr) moderate to severe posterior nonmacular nonoptic nerve visual loss secondary to vitreous blood
348	Eye wound directed energy induced (laser) moderate nonmacular nonoptic nerve no vitreous blood
349	Eye wound directed energy induced (laser/rfr) mild to moderate anterior pain with photophobia and disruption of corneal integrity
350	Eye wound directed energy induced (laser) mild flash blindness no permanent damage
351	Anthrax, inhalation, non-vaccinated1, incubating, asymptomatic
352	Anthrax, inhalation, non-vaccinated, prodromal
353	Anthrax, inhalation, non-vaccinated, acute
354	Anthrax, inhalation, vaccinated, asymptomatic
355	Anthrax, inhalation, vaccinated, prodromal
356	Anthrax, inhalation, vaccinated, acute
357	Plague, inhalation, incubating, asymptomatic
358	Plague, inhalation, acute
359	Plague meningitis
360	Botulism with respiratory failure
361	Botulism without respiratory failure
362	Staphylococcal enterotoxin b with respiratory failure
363	Staphylococcal enterotoxin b without respiratory failure
364	Venezuelan equine encephalitis with central nervous system involvement
365	Smallpox, incubating, asymptomatic
366	Smallpox, symptomatic
367	Tularemia, inhalation, incubating asymptomatic
368	Tularemia, inhalation, acute
369	Ricin, inhalation
370	Q fever, inhalation, incubating, asymptomatic
371	Q fever, inhalation, acute
382	Nerve agent vapor only (inhalation) mild
383	Nerve agent vapor moderate
384	Nerve agent vapor severe
385	Nerve agent liquid mild

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
386	Nerve agent liquid moderate
387	Nerve agent liquid moderately severe
388	Nerve agent liquid severe
389	Wound, lower leg, open, lacerated, penetrating, no fractures, requiring major debridement, mod. contaminated with liquid nerve agent
390	Nerve agent combined penetrating abdominal wound
391	Mustard liquid/vapor mild
392	Mustard liquid/vapor moderate
393	Mustard liquid/vapor severe
394	Hd/lewisite combination, mild
395	Phosgene oxime
396	Cyanide (ac) inhalation, mild
397	Cyanide (ac) inhalation, severe
398	Pulmonary agent with early (<4hours) symptoms
399	Pulmonary agent with delayed (>4 hours) symptoms
400	Anticholinergic incapacitating agent
401	White phosphorus injury, skin exposure
600*	Hyphema all cases
601*	Verruca, plantar warts, anal, genital condylomas
602*	Common dermatitis - puritis, uticaria
603*	Smoke inhalation
604*	Electrical shock
605*	Arthritis
606*	Constipation, fecal impaction
607*	Motion sickness, vertigo
608*	Gastroenteritis
609*	Stroke
610*	Diabetes
611*	Acne, sebaceous gland condition
612*	Rickettsial disease including Rocky Mountain Spotted Fever, scrub typhus
613*	Poisoning, including ingestion, inhalation, contact

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
614*	Decompression sickness
615*	Syncope, vasovagal
616*	Aircraft accident investigation (IDC - collect blood, urine samples only)
617*	Urinary tract infection uncomplicated
800*	Acute necrotizing gingivitis (ANUG)-an inflammation of the gingiva characterized by necrosis of the papillae, ulceration of the gingival margins, appearance of a pseudomembrane, pain, and a fetid mouth odor
801*	Alveolitis/alveolar osteitis (localized)-infection of an extraction site (dry socket, localized osteitis)
802*	Apical abscess/periapical abscess-collection of purulent exudate around the area of the tooth that surrounds the root tip
803*	Avulsed, mobile, displaced tooth-separation or displacement of an entire tooth structure from its supporting and attaching tissues
804*	Candidiasis-fungal infection
805*	Caries no pulp involvement-deterioration of enamel by decay that does not extend to the pulp
806*	Caries pulp involvement-deterioration of enamel by decay that extends to the pulp
807*	Cellulitis-inflammation of the subcutaneous tissue caused by group a beta hemolytic streptococci
808*	Crown loose-loose tooth cap
809*	Crown broken/missing-broken or fracture of tooth cap
810*	Defective restoration-deterioration, fracture, or loss of permanent or temporary non-cast restoration
811*	Dentin hypersensitivity-a portion of the protective covering from the hard enamel coating of the tooth is lost causing the odontoblasts to be exposed and hypersensitive to hot and cold substances
812*	Food impaction/foreign body removal-food or object that is lodged in gums
813*	Fractured alveolar bone-a break in the bone surrounding a tooth
814*	Fractured mandible-fracture or break of the lower jaw
815*	Fractured maxilla-fracture or break of the upper jaw
816*	Fractured tooth-fracture or break in the tooth with or without the loss of a portion of the tooth enamel crown
817*	Gingivitis-acute or chronic inflammation of the gingiva
818*	Maxillary sinusitis-infection of sinus area accompanied by inflammation and drainage conditions may mimic toothache
819*	Occlusal trauma-trauma to the incisal surface or occlusion of teeth
820*	Oral ulcers : (cold sores, oral herpes, apthous ulcers, canker sores, vesiculo-bullous)-ulcers that affect the oral cavity
821*	Osseous sequestrum-bone splinters
822*	Osteomyelitis-microbial infection of bone marrow
823*	Soft tissue trauma, laceration-oral or facial soft tissue abrasion, contusion, or burn

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
824*	Pericoronitis/erupting tooth-acute inflammation of tissue area surrounding tooth, most commonly associated with erupting third molars
825*	Periodontitis/peridontal abscess-advanced gum disease and inflammation which causes bone loss resulting in tooth loss if untreated
826*	Post operative problem-conditions associated with previous operative treatment such as bite adjustment, etc
827*	Post surgical problem-conditions associated with previous surgical treatment such as swelling from tooth extraction, etc
828*	Prosthesis loose-deterioration of adhesion of a fixed or removable appliance that replaces missing teeth (for example bridges, dentures and partials)
829*	Prosthesis (broken/missing)-absence, deterioration defect, or fracture of a fixed or removable appliance that replaces missing teeth (for example bridges, dentures and partials)
830*	Pulpitis (irreversible)-inflammation of the dental pulp or nerve associated with throbbing continuous pain that is spontaneous that lingers even after the stimulus is removed
831*	Pulpitis (reversible)-inflammation of the dental pulp or nerve associated with short lived pain following application of hot, cold, sweet, or biting stimulus
832*	Root fracture-fracture or break in part of the tooth below the crown
833*	Medical emergency in chair-a rapidly developing condition, usually acute, that requires immediate medical intervention. Can include anaphylaxis, syncope, heart attack, aspiration, anaphalatic shock, etc.
834*	Preventive care - annual exam provided to prevent deterioration of dental health.
900*	Water sanitation (Fleet)(fl))
901*	Pest control (fl)
902*	Heat/cold injury prevention (fl)
903*	Communicable disease intervention (fl)
904*	Food sanitation (fl)
905*	Common area sanitation (fl)
906*	Berthing area sanitation (fl)
907*	Waste management (fl)
908*	Force training (fl)
909*	Hearing conservation (fl)
910*	Physical exam (fl)
950*	Water sanitation (Marine Corp)(mc))
951*	Pest control (mc)

*PCs numbered 600 and higher are codes that were added to the ESP model.

*PC#	PC DESCRIPTION
952*	Heat/cold injury prevention (mc)
953*	Communicable disease control (mc)
954*	Food sanitation (mc)
955*	Common area sanitation (mc)
956*	Berthing sanitation (mc)
957*	Waste management (mc)
958*	Conduct training (mc)

*PCs numbered 600 and higher are codes that were added to the ESP model.

APPENDIX B

Matching OOTW Diagnoses to DEPMEDS and ESP

Trauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Brain Trauma	1-10	Cerebral contus fx & hematoma severe; Cerebral contus open fx moderate
Head injury, other	13-20	Fragment wound head (penetrating) Fx facial bones multiple severe; Fx facial bones multiple severe; Fx mandible mild displacement stable Fx mandible unstable severe req'ing open reduction Wound face jaws neck open w/fx moderate eye laceration w/foreign body; Wound face neck moderate Wound scalp moderate;
Eye Trauma	21-22; 311; 346-350	Corneal laceration; Enucleation Multiple (multiocular) explosive wounds;
Ear Trauma	23-24	Hearing loss; Perforated ear drums/hearing injuries
Fractures	25-30; 41; 44; 49-50; 55-56; 81-82; 112-113; 120; 127; 132-133; 322-323	Fx ankle/foot closed displaced reduction Fx ankle/foot closed nondisplaced no reduction Fx clavicle closed all cases Fx closed tibia & fibula shaft all cases Fx femur Fx hand or fingers closed severe Fx humerus Fx lower arm Fx mandible mild displacement stable Fx mandible unstable severe req'ing open reduction Fx radius & ulna closed moderate-Colles fracture Fx rib(s) closed moderate Fx ribs closed severe multiple Fx spine closed no cord damage stable Fx spine closed no cord damage unstable Fx spine closed w/cord damage below cerv Fx spine open w/cord damage below cerv Fx spine open w/cord damage cervical Nondisplaced fx pelvis closed
Musculoskeletal Trauma	31-34; 64-68; 72-74; 140-143; 148-149; 320-321	Dislocation hip closed acute all cases; Dislocation shoulder closed all cases; Dislocation/fx elbow closed acute all cases; Dislocation/subluxation TMJ w/o fx acute initial injury Intervertebral disc disorder resist rest/trac; Intervertebral disc disorder respond rest/trac; Sprain ankle closed acute complete ligament rup; Sprain ankle; Sprain ankle closed acute ; Sprain fingers closed acute moderate no thumb; Sprain thumb closed acute severe; Sprain wrist closed acute all cases; Strains/sprains sacroiliac severe nonambul; Tear ligaments knee acute complete rupture; Tear ligaments knee acute incomplete rupture;

Appendix B – Matching OOTW Diagnoses to DEPMEDS and ESP

Trauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Burns	35-40; 75-80; 90-95; 150-155; 268	1st & 2nd degree burns, Burn foot Burn minor Burn thermal full thick upper extrem <10%, Burn thermal partial thick trunk 10-20%, Burn thermal partial thick upper extrem <10%, Burn thermal partial thick upper extrem 10-20%, Burn thermal superficial head/neck >5%, Burn thermal superficial trunk 10-20%, Burn thermal superficial upper extrem <10%, Burns 40% BSA, Burns, necroses, White phosphorus burns partial thick <40% TBSA,
Wounds	42-43; 45-48; 51-54; 57-60; 85-88; 96-111; 114-119; 121-126; 128-131; 134-137; 159-186; 312-313; 319; 389	Fragment wounds, MIW hip iliac artery/vein descending colon Wound abdominal open small bowel, Wound abdominal wall no major debridement, Wound ankle foot toes open major debridement, Wound ankle foot toes open no major debride, Wound ankle foot toes open w/fx salvageable, Wound buttocks moderate, Wound buttocks severe, Wound external genitalia male moderate, Wound fingers open w/fx(s) not req'ing rehabilitation Wound fingers open w/fx, Wound forearm open moderate, Wound hand &/or fingers open no fx mod, Wound hand &/or fingers open no fx severe, Wound hand open w/fx all cases, Wound knee open, Wound lower leg open no fx major debridement, Wound lower leg open no fx no major debride, Wound lower leg open w/fx not salvageable, Wound lower leg open w/fx salvageable, Wound thigh open no fx major debridement, Wound thigh open no fx no major debridement, Wound thorax open not major debridement, Wound upper arm open no fx moderate,
Crush	61-62; 138-139	Crush injury finger
Traumatic Amputation	69-71; 144-147	Amputation above knee traumatic complete Amputation below knee traumatic complete all; Amputation foot traumatic complete all cases; Amputation full arm traumatic complete all cases; Amputation hand traumatic complete all cases;
Blast/Crush	83-84	Blast wound penetrating chest
Bites, stings	157-158	Fire ant sting; Insect bites or stings;
Drowning	265	None
Toxic Inhalation	266	None
Animal bites	328	Animal bites & rabies exposure
Snake Bite	335	Snake bite
NBC	351-388; 390-401	None
Poisoning	613	None

Nontrauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Circulatory	11; 258-260; 609; 615	Angina; Intracranial hemorrhage nontraumatic; Ischemic heart disease; **Mild/Moderate hypertension;** Phlebitis deep vein involvement; Severe hypertension;
Cold	187-192	None
Cutaneous	202-209; 212-215; 339; 602; 611	Abscess; Acne sebaceous gland condition Boils furuncles pyoderma requiring surgery; Cellulitis; Common dermatosis--pruritis/urticaria; Cutaneous ulcers including leishmaniasis; Cyst/abscess all cases requiring minor excision; Dermatophytosis severe-affecting feet; Eczema dermatitis seborrheic contact affect wt bearing; Eczema dermatitis seborrheic contact not wt bearing; Folliculitis Fungal infections all cases; Impetigo; Ingrown toenail requiring surgery; Ingrown toenails w/o 2ndary infection; Lichen simplex chronicus; Pilonidal cyst/abscess requiring major excision; Pyoderma/boil/abscess/carbuncle;
Dental	800-834	Candidiasis; Caries; Dental; Fractured Tooth; Odontalgia; Routine tooth extractions Surgical tooth extractions; **Unsalvageable tooth;**
Ear Disorders	229-230	Hearing impairment severe Otitis externa all cases; Otitis media acute suppurative Eustacian tube all cases;
Externally Generated Conditions	603-604; 607; 612; 614	None

Nontrauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Eye Disorders	219-226; 600	Blepharitis all cases; Blocked tear duct/dacryoadenitis; **Cataract;** Chalazion; Conjunctivitis moderate all cases; Conjunctivitis severe all cases; Corneal abrasion; Corneal scar; Corneal ulcer Dacryocystitis; Epiphora; Episcleritus; Esotropia; Eye infections/visual loss; Hyphema all cases; Iridocyclitis acute minimal visual impairment; Lacrimal duct stenosis; Macular pigmentary degeneration; Nystagmus; **Pterygium;** Retinal detachment
Eye Refractory	227-228	Blindness; Refraction & accommodation disorders Visual disturbance; Visual loss
Gastrointestinal	196-199; 243-246; 248-252; 256; 287; 606; 608; 610	Appendicitis acute w/o perf rupture peritonitis; Appendicitis acute w/perf rupture peritonitis; Constipation/fecal impaction; Diarrheal disease moderate; Diarrheal disease severe; Dyspepsia acute all cases; Food poisoning all organisms disabling symptoms; Food poisoning all organisms moderate symptoms; Gastroenteritis; **Gastroesophageal reflux disorder (GERD)** Hemorrhoidal disease all cases; Inguinal hernia complicated; Inguinal hernia uncomplicated; Oesophageal/gastroduodenal pathologies; Peptic ulcer gastric or duodenal penetrating; Peptic ulcer gastric or duodenal uncomplicated; Rectal fistula;
Genitourinary	269-280; 285-286; 617	Balanoposthitis all cases; Cholecystitis acute w/stones all cases; Pancreatitis acute all cases; Pyelonephritis acute no obstruction; Pyelonephritis acute secondary to obstruction; Sexually transmitted disease genital ulcer adenop Sexually transmitted disease NSU, muculpur, trichom; Sexually transmitted gonorrhea chlamydia PID ; Sexually transmitted infections; Urinary tract infection uncomplicated;

Nontrauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Heat	193-195	Heat exhaustion; Heat cramps all cases
Infectious Diseases	216; 263-264; 282-283; 329-334; 601	Febrile illness acute severe; Hepatitis infectious viral all cases; Herpes simplex & zoster; **HIV;** Infectious mononucleosis all cases; Malaria moderate all species; Malaria severe all species Meningo-encephalitis complicated; Meningo-encephalitis uncomplicated Schistosomiasis all cases; Systemic infectious disease (leprosy/typoid/malaria); **Tuberculosis, pulmonary** Verruca/plantar warts/anal/genital condylomas;
Musculoskeletal	200-201; 262; 605	Arthritis; DJD; Internal derangement knee chronic w/torn meniscus; **Minor pain, including musculoskeletal, backache, and headache, due to tension, stress or overuse and not associated with other conditions;** Musculoskeletal complaints/back pain; Musculoskeletal other or unspecified; Osteomyelitis; Plantar fasciitis Strain lumbosacral sacroiliac joint chronic all cases; Tenosynovitis tendonitis bursitis epicondylitis;
Neoplasms	289-290	Carcinoma;Skin Cancer; Neoplasms benign; Neoplasms malignant; Ovarian cyst; Tumor bladder; Tumors, atheromas, clavi req'ing surgery;
Neuro	255	Meniere's; Migraine all cases; Vertigo peripheral
Nutritional		**Anemia not caused by other conditions** **Dehydration;** **Malnutrition;**
Ob/Gyn	291-295; 297; 299	Cervicitis endocervicitis w/symptomatic leukorrhea; Dysmenorrhea, amenorrhea;Mittleschmerz; Gynecological bleeding; Long menses; Mastitis; Menopause Pelvic inflammatory disease (PID) all cases; **Pregnancy/childbirth** Uterine prolapse; Vulvovaginitis;
Parasitic	210-211; 253	Helminths gastrointestinal (worms); Pediculosis all cases; Scabies all cases;

Nontrauma Categories	DEPMEDS/ESP	OOTW Diagnoses (Unmatched are in bold type)
Pediatric		**Childhood diseases;** **Immunizations (OOTW)** **Well-baby;**
Psychological	301-310; 314-318; 324-325	Alcohol dependency severe--impending or actual dt's; Alcohol dependency syndrome moderate; Alcohol misuse simple intoxication; Anxiety; Behavior problems; Non-psychotic mental disorders; Psychosis; Stress;
Respiratory	232-236; 239-240	Acute respiratory disease moderate; Adult respiratory distress syndrome; Allergic rhinitis; Asthma all other cases;Acute respiratory disease severe; Asthma w/disabling symptoms or repeat attacks; Bronchitis acute all cases; COPD; Enlarged tonsils; Pharyngitis; Pleurisy;Pulmonary; **Pneumonia;** Sinusitis; Upper respiratory infection;

APPENDIX C

Treatment Tasks for OOTW PCs

PC 618. Anemia, iron deficiency, not resulting from other conditions

Task No.	Task	Field	Clinic	Hospital
OTW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
612	Complete blood count (CBC)			✓

PC 619. Cataract

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
OTW02	Refer patient*	✓	✓	✓
122	Eye drops instillation		✓	✓
OTW05	Ophthalmic exam*		✓	✓
OTW06	Slit-lamp test*		✓	✓
339	OR preparation			✓
OTW07	Sedate patient*			✓
344	Patient preparation in the OR			✓
351	OR team preparation			✓
OTW08	Anesthetize eye*			✓
OTW09	Cataract excision*			✓
537	Recovery/release from anesthesia			✓
123	Eye care			✓
145	Administer appropriate medication			✓

PC 620. Childhood diseases, including measles, mumps, rubella, varicella

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
248	Force fluids	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

* Indicates new task

PC 621. Dehydration due to fluid loss, inadequate intake, or both and not associated with other conditions

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
248	Force fluids	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
50	Electrolyte levels (NA, K, CL, CO_2)			✓

PC 622. Gastroesophageal reflux disorder (GERD)

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

PC 623. Hypertension, mild to moderate

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
OTW13	Patient education*	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

PC 624. Immunizations (OOTW)

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
Z612	Administer vaccine	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

* Indicates new task

PC 625. Malnutrition due to inadequate food intake

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

PC 626. Minor pain, including musculoskeletal, backache, and headache, due to tension, stress or overuse and not associated with other conditions

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
OTW03	Range-of-motion testing*	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

PC 627. Pneumonia

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
OTW04	Auscultate lung sounds*	✓	✓	✓
248	Force fluids	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
OTW02	Refer patient*	✓	✓	
197	Charting & paperwork – patient specific	✓	✓	✓
022	O_2 administration setup			✓
023	O_2 administration continuous			✓
049	Start/change IV infusion site			✓
050	Administer IV fluid			✓
079	Catheterization, Foley			✓
125	Sponge/hyperthermia treatment		✓	✓
745	Assemble material/cleanup			✓
596	Electrolyte levels (NA, K, CL, CO_2)			✓
603	Blood glucose level			✓
604	BUN level			✓
612	Complete blood count (CBC)			✓
613	White blood cell count			✓

* Indicates new task

Task No.	Task	Field	Clinic	Hospital
620	Urinalysis w/specific gravity			✓
621	Microscopic urinalysis			✓
622	Platelet estimate			✓
635	Mononucleosis spot test			✓
ZZ24	Culture specimen collection			✓
ZZ57	Clean and sterilize lab equipment			✓
676	Chest AP/PA			✓
677	Chest lateral			✓
633	Gram stain			✓
TBD	HIV screen			✓
ZZ47	RBC morphology			✓
595	Blood gas analysis			✓
ZZ03	Needle thoracostomy			✓
Z046	Maintain chest tube suction			✓
Z042	Insert chest tube			✓
TBD	Echocardiogram			✓
221	Pericardiocentesis			✓

PC 628. Pregnancy

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status			
024	Vital signs	✓	✓	✓
OTW15	Pregnancy history*	✓	✓	✓
OTW17	Estimate fetal weight*	✓	✓	✓
151	Gynecological exam	✓	✓	✓
OTW16	Perform Leopold's maneuvers*	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
OTW18	Assist delivery*	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
OTW19	Perform episiotomy*		✓	✓
OTW20	Administer epidural anesthesia*			✓
022	O_2 setup		✓	✓
023	Administer oxygen		✓	✓
069	Initiate heparin/saline lock			✓
049	Start/change IV infusion site			✓
050	Administer IV fluid			✓
641	Blood type & cross			✓

* Indicates new task

PC 629. Pterygium

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
OTW02	Refer patient*	✓	✓	
024	Vital signs	✓	✓	✓
OTW05	Ophthalmic exam*		✓	✓
339	OR prep			✓
OTW07	Sedate patient*			✓
344	Patient preparation in the OR			✓
351	OR team preparation			✓
OTW08	Anesthetize eye*			✓
OTW10	Pterygium excision*			✓
123	Eye care			✓

PC 630. Tuberculosis, pulmonary

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
OTW11	Patient precautions*	✓	✓	✓
OTW12	Provider precautions*	✓	✓	✓
024	Vital signs	✓	✓	✓
145	Administer appropriate medication		✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓
676	Chest AP/PA		✓	✓
677	Chest lateral		✓	✓
BS	Issue consumable basic setup			✓
OTW14	Dispense medication*			✓
693	Interpretation of film studies		✓	✓
OTW02	Refer*	✓	✓	✓

* Indicates new task

PC 631. Well-baby examination

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
OTW21	Weigh and measure baby*	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

PC 835. Dental caries; tooth unsalvageable

Task No.	Task	Field	Clinic	Hospital
0TW01	OOTW intake/triage*	✓	✓	✓
002	Assessment/evaluation of patient status	✓	✓	✓
024	Vital signs	✓	✓	✓
OTW22	Perform nonsurgical extraction*	✓	✓	✓
145	Administer appropriate medication	✓	✓	✓
197	Charting & paperwork – patient specific	✓	✓	✓

* Indicates new task

APPENDIX D

Supplies Needed for New OOTW Treatment Tasks

Task OTW01. OOTW intake/triage

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6135008264798	Battery nonrechargeable alk 1.5v aaa 24s	✔	✔	✔
7520009357136	Pen ballpoint retractable med pt black	✔	✔	✔
New	OOTW intake form*	✔	✔	✔
New	PDA or laptop*	✔	✔	✔

Task OTW02. Refer patient

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
New	OOTW Referral Form*	✔	✔	✔
7520009357136	Pen Ballpoint Retractable Med Pt Black	✔	✔	✔

Task OTW03. Range-of-motion testing

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
	No supplies needed.	✔	✔	✔

Task OTW04. Auscultate lungs

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6515013146694	Stethoscope Littman classic II 28 in lg	✔	✔	✔

Task OTW05. Ophthalmic examination

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6545014586178	Otoscope & ophthalmoscope set delux soft	✔	✔	✔

Task OTW06. Slit-lamp test

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505011591493	Fluorescein strips		✔	✔
6540014599226	Handheld slit lamp*		✔	✔

*Indicates new supply

Task OTW07. Sedate patient

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505001375891	Diazepam inj 5mg/ml 2ml syringe w/ndl		✔	✔

Task OTW08. Anesthetize eye

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505002719220	Phenylephrine 2.5%, 15 ml, sterile*			✔
6505002999666	Cyclopentolate 1%, 15 ml, sterile			✔
6505005824737	Tetracaine HCl, 0.5%, 2 ml*			✔
6505005986117	LidocaineHCl inj 2% 20 mg/ml 20ml vial			✔
6505008718289	Tropicamide 1%, 15 ml, sterile*			✔
6505012366458	Lidocaine 2% inj, 10 ml vial*			✔
6515007542837	Needle, 26 ga, 1/2" long			✔
6515014417251	Atkinson needle, retrobulbar*			✔

Task OTW09. Cataract excision

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505000640724	Acetazolamide sodium inj, 500 mg *			✔
6505001335843	Prednisolone acetate 1%*			✔
6505002260799	Hyaluronidase, 150 USP, 1 ml*			✔
6505008804949	Acetazolamide, Diamox Sequels 500 mg*			✔
6505009635355	Dexamethasone 4 mg/ml or Cortisporin			✔
6505010904724	Phenylephrine HCl ophthalmic solution*			✔
6505010908125	Ocucoat*			✔
6505010932384	Epinephrine 1:1000, 1 ml ampule			✔
6505011197693	Balanced Salt Soution (BSS), 15 ml*			✔
6505011439509	Dexamethasone drops*			✔
6505011566575	Diamox tabs, 250 mg*			✔
6505012139514	Gentamycin, 40 mg/ml, 20 ml			✔
6505012314806	Ceftazadime, 1 g vial*			✔
6505012478801	Vancomycin HCl USP, 1 g, 20ml vial			✔
6505012803581	Ocufen(flurbiprofen) .03% gtts, 2.5 ml btl*			✔
6505013041008	Dexamethason ophthalmic solution*			✔
6505013463066	Apraclonidine HCl ophthalmic solution*			✔
6505013556475	Balanced Salt Soution (BSS), bag*			✔
6505014703141	Miochol, 2 ml, sterile*			✔
6515003343800	Hemostats			✔
6515003417200	Needle driver, locking			✔

*Indicates new supply

6515006198219	Needle driver, Webster (bend cystotome)			✔
6515006639801	Fox shield			✔
6515007822614	Handle, eye knife blades*			✔
6515007822616	Handle, Beaver blade*			✔
6515010464303	Blade, 69B*			✔
6515011077575	Eye pad, sterile			✔
6515011151731	Scissors, corneal castro angled right*			✔
6515011151732	Scissors, corneal castro angled left*			✔
6515011157667	Forceps, .12mm suture			✔
6515011205013	Needle driver, castroviejo*			✔
6515011249775	Scissors, Vannas capsulotomy straight*			✔
6515011397668	Forceps, Colibri			✔
6515011648882	Cannula, manual irrigating and aspiration*			✔
6515012052365	Hook, muscle, Jameson dsgn*			✔
6515012056821	Speculum, lid small*			✔
6515012056823	Speculum, lid large*			✔
6515012069242	Retractors, iris, flexible*			✔
6515012148746	Lens extractors*			✔
6515012151026	Cannula, 27 gauge, angled*			✔
6515012503545	Blade, 15 deg/75 blade*			✔
6515012860405	Fluid administration set			✔
6515012915445	Blade, keratome*			✔
6515013204473	Forceps, tying, straight			✔
6515013274842	McCannel suture, 10-0 Prolene, 8"*			✔
6515013503568	Blade 3 mm slit (angled blade)*			✔
6515013641432	Forceps, tying, curved			✔
6515013702219	Scissors, blunt, tenotomy Westcott*			✔
6515013765179	Blade, crescent, angled, bevel-up*			✔
6515013832688	Suture, 10-0 nylon, 12"			✔
6515013934185	Cystotome*			✔
6515014621219	Forceps, Blaydes lens holding			✔
6515014630340	Coagulator, cordless*			✔
6515014630353	Eraser tips for Mentor cautery*			✔
6515014696145	Forceps, Utrata capsulorhexis*			✔
6515014827975	Spatula, cyclodialysis*			✔
6515014828402	Scissors, straight, iris*			✔
6515016027091	Extension set, 33", no port*			✔
6516014630342	Cautery sleeve, sterile *			✔
6520013414043	Isodent tissue glue*			✔
6530012685142	Sponge set cataract surgery sterile disp*			✔
6540014587838	Tonometer ophthalmic handheld*			✔
MC50BD, 6.5mm, PMMA haptics MC50BM, 6.5mm, prolene haptics	IOL, posterior chamber, diopter range +15-+26 in 5-diopter steps (Alcon)*			✔

*Indicates new supply

MTA4U0, 5.5mm, 13.0mm	IOL, anterior chamber, Kelman-style (Alcon)*			✔
P/N 00-08680	Eye sponge, Weck cells (Xomed)*			✔
P/N 020-505	Cannula, Olive tip (Sparta)*			✔
P/N 10113-11	Scissors, Dewecker, sharp (Princeton)*			✔
P/N 1033	Glide, IOL lens (Visitec)*			✔
P/N 33633-06	Gouge, Stille (Princeton)*			✔
P/N 44306-00	Cannula, Simcoe (Princeton)*			✔
P/N 5977	Drape, plastic, eye (Microtek)*			✔
P/n 9081G	Suture, prolene, 10-0, 4" (Ethicon)*			✔
P/N E1620	Forceps, Kuhnt fixation, curved (Storz)			✔
P/N J401G	Suture vicryl 8-0 (Ethicon)*			✔
P/N OP0911-992	Forceps, Masket capsul angle (Instrumed)			✔
P/N OP0923-302	Sinskey lens manip. hook (Instrumed)*			✔
P/N OP20620	Irrigating loop, lens, vectis (V. Mueller)*			✔

Task OTW10. Pterygium excision

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505010057327	Mitomycin 5 mg vial*			✔
6505012366458	2% lidocaine w/epinephrine*			✔
6515000678242	Silk 4-0 suture (round)			✔
6515003447920	Handle, Bard-Parker*			✔
6515013765179	Blade, crescent *			✔
6515013832688	Nylon 10-0 sutures			✔
6515014605954	Jaffe curved lid retractors*			✔
P/N 031-351	Bur Lempert diamond 1.5 mm (Sparta)*			✔
P/NE0999	Newell lid retractors (Storz)*			✔

Task OTW11. Patient precautions

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6515007822621	Mask surgical nonwoven fabric disp 50s	✔	✔	✔
8540007935425	Tissue facial 2-ply 36x24" white 100s	✔	✔	✔

*Indicates new supply

Task OTW12. Provider precautions

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6515007822621	Mask surgical nonwoven fabric disp 50s		✔	✔
6515013648553	Glove patient exam/treat med prepwdr 100	✔	✔	✔
6515013648554	Glove patient exam/treat lge prepwdr 100s	✔	✔	✔
6532011536517	Gown isolation disp yellow lge elastic cuff		✔	✔

Task OTW13. Patient education

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
	No supplies needed	✔	✔	✔

Task OTW14. Dispense medication

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6530011688096	Tray tablet and capsule counting plastic			✔
6530000000070	Cup, medicine plastic 1oz			✔

Task OTW15. Pregnancy history
Task OTW16. Perform Leopold's maneuvers
Task OTW17. Estimate fetal weight

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
	No supplies needed	✔	✔	✔

Task OTW18. Assist delivery

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505005986116	Lidocaine HCl inj USP 1% 10 mg/ml 50ml	✔	✔	✔
6510007863736	Pad isopropyl alcohol impregnated nonwvn cotton/rayon white 200s	✔	✔	✔
6515003346800	Forceps hemostatic Kelly 5.5 in straight	✔	✔	✔
6515003640900	Scissors general surgical Mayo 550 in str	✔	✔	✔
6515006903198	Holder suture needle Debakey 7 in serr	✔	✔	✔
6515007281172	Suture abs sz 3-0 27in lg ndl gut 36s	✔	✔	✔
6515012569688	Syringe aspirating newborn infant bulb	✔		

*Indicates new supply

	type 3 oz disp 50s*			
6515013648553	Glove patient exam/treat med prepwdr 100	✔	✔	✔
6515013648554	Glove patient exam/treat lge prepwdr 100s	✔	✔	✔
6530001101854	Towel pack surg blue/green ster 96s	✔		
6530002998069	Bowl surgical sponge aluminum 3x6" recessed	✔		
6530012285852	Surgical pack disposable OB pack w/tbl cvr drapes sterile 4s*		✔	✔
P/N 62110	Blanket baby 100 poly disposable*	✔	✔	✔

Task OTW19. Perform episiotomy

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505005986116	LidocaineHCl inj USP 1% 10 mg/ml 50 ml		✔	✔
6510007863736	Pad isopropyl alcohol impregnated nonwvn cotton/rayon white 200s		✔	✔
6510010100307	Pad povidone-iodine impreg 1 x 2 in brown		✔	✔
6515013418725	Scissors episiotomy Braun crs ob type 5.50" o/a lg ang to side*		✔	✔

Task OTW20. Administer epidural anesthetic

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6515011486997	Anesthesia set epidural 10s 2 components*			✔
6510007822700	Sponge surg12-ply gauze 2 x 2 in sterile			✔
6510009268882	Tape adhesive surg woven 1in x 12 yd 12s			✔
6505001493500	Bupivacaine HCl inj USP 0.25% 50 ml vial*			✔
6505011210705	Fentanyl citrate injection USP 20 ml ampul 5 ampuls per box*			✔

Task OTW21. Weigh and measure baby

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
P/N KM48313	Tape measure*		✔	✔
P/N 32149 Moore	Baby scale*		✔	✔

Task OTW22. Nonsurgical tooth extraction

*Indicates new supply

NSN or Part No.	Supply Nomenclature	Field	Clinic	Hospital
6505010645769	Benzocaine gel 20% 1oz or 28 g bottle	✔	✔	
6505011461139	Lidocaine HCl & epinephrine inj USP 8 ml cartridge 100s	✔	✔	
6505012143062	Ibuprofen tablets USP 800 mg 500 tab/btl	✔	✔	
6510007219808	Sponge surg cotton gauze 4x4 in sterile	✔	✔	
6515003280700	Elevator periosteal 7.75" lg curved blade	✔	✔	
6515003373900	Forceps gauze pad holding Foerster 9 in str	✔	✔	
6515003417200	Holder suture needle Collier 5" lg straight jaw box lock CRS	✔	✔	
6515008388946	Suture nonabs sz 3-0 1.50' lg silk	✔	✔	
6515010108761	Syringe cartridge dental aspirating side loading screw cap	✔	✔	
6515012346838	Applicator wood or plastic 6" lg	✔	✔	
6520001805965	Forceps tooth extracting #17 cres 6.250" lg	✔	✔	

*Indicates new supply

REPORT DOCUMENTATION PAGE

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB Control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. Report Date (DD MM YY)	2. Report Type	3. DATES COVERED (from - to)
May 2002	Interim	1998

4. TITLE AND SUBTITLE Medical Planning for Operations Other than War (OOTW): Determining Unique Patient Conditions, Clinical Tasks, and Supplies

6. AUTHORS
Eleanor D. Gauker, Paula J. Konoske, & Kristee Emens-Hesslink

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Health Research Center
P.O. Box 85122
San Diego, CA 92186-5122

8. SPONSORING/MONITORING AGENCY NAMES(S) AND ADDRESS(ES)
Chief, Bureau of Medicine and Surgery
Code M2
2300 E St NW
Washington DC 20372-5300

5a. Contract Number:
5b. Grant Number:
5c. Program Element: 63706N
5d. Project Number: M0095
5e. Task Number: 001
5f. Work Unit Number: 60101
5g. IRB Protocol Number: 32214

8. PERFORMING ORGANIZATION REPORT NUMBER
Report No. 02-11

10. Sponsor/Monitor's Acronyms(s)
BuMed

11. Sponsor/Monitor's Report Number(s)

12 DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT (maximum 200 words)

Operations other than war (OOTW) and combat scenarios differ in doctrinal, cultural, political, personnel, and logistical aspects. Relying on the parameters of combat scenarios to plan medical requirements for OOTW missions might result in overstocking of some supplies and equipment while underestimating the requirements for others.

The goal of this study was to identify those diseases and injuries that occur during OOTW but not during combat operations, and to link them to corresponding treatment tasks and supply requirements. The ultimate objective of this research effort was to add an OOTW component to the Estimating Supplies Program (ESP), thus enhancing its value as a planning tool.

A literature search was conducted to find published disease and injury statistics representing a variety of OOTW scenarios, and this information was organized to form a database. Researchers compared the OOTW diagnoses with diseases and injuries that were already defined in the ESP model.

The literature search produced 19 sources that included disease and injury information for OOTW. To organize these statistics, PCs used in ESP were identified either as trauma or nontrauma. The trauma PCs were divided into 18 categories, while the nontrauma PCs formed 20 categories. There were 15 OOTW diagnoses that did not match already-existing PCs, and all of them were nontraumatic. In addition, 22 new clinical tasks were introduced.

In this report, the diagnoses were classified by type rather than by frequency to determine which diseases and injuries are unique to OOTW. Additional research is needed to quantify populations at risk and to calculate rates of occurrence for humanitarian assistance, disaster relief, and peacekeeping

14. **Subject Terms**
diseases and injuries, treatment tasks, supply requirements, OOTW scenarios

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGE	18a. NAME OF RESPONSIBLE PERSON
a. REPORT	b.ABSTRACT	C. THIS PAGE			Commanding Officer
UNCL	UNCL	UNCL	UNCL	54	18b. TELEPHONE NUMBER (INCLUDING AREA CODE) COMM/DSN: (619) 553-8429