Volume 3, Edition 3 **Summer 2003**

Journal of Special Operations Medicine

A Peer Reviewed Journal for SOF Medical Professionals

NOW ONLINE! SEE "FROM THE STAFF"- ON PAGE 4 FOR MORE DETAILS!

Dedicated to the Indomitable Spirit & Sacrifices of the SOF Medic

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2003		**00-00-2003 to 00-00-2003**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Journal of Special Operations Medicine, Volume 3, Edition 3	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Joint Special Operations University,357 Tully Street,Alison Building,Hurlburt Field,FL,32544**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

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

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**78**	

From the Surgeon

Greetings again from your HQ/USSOCOM. As we move into the summer months we still find ourselves in awe and in full support of our special ops forces in the fields and towns of Afghanistan, Iraq, and elsewhere in the world (150 countries so far this year). I just read the recent data from Landstuhl Medical Center on the patients moving through that terrific facility and was reminded again of the critical job our Civil Affairs folks are doing in Iraq and the risks they take day in and day out in accomplishing their missions. Sometimes we forget to acknowledge just how dangerous their work is--they move into a combat area near the end of formal combat hostilities and get "close" to the families and civilians they are sent there to support. Every so often they are rewarded with a blast from an AK-47 or an RPG. This is dangerous, yet critical work that they do and they are turning on the lights, getting the water to flow, and building an environment where the Iraqis can enjoy their new freedom presented by this campaign. These units are amazing; give them your full support.

As we enter this last FY quarter, we are anticipating a conference here at the headquarters where we will bring in our medical guys representing all the component units, and we will go over the lessons learned in this past year of operation activity. This is critical, for we will hear firsthand the issues and it will plot our way ahead in support of the Medics/Corpsmen/PJs/SMEs out there caring for our troops. The data will drive changes in the curriculum of the school, medical supply issues, and how we will invest our Biomedical Initiatives dollars to solve problems encountered by our guys and described by them (as with fibrin/chitosan dressings, HBOC, etc). It should be very valuable.

We are now finalizing the build of the SOF "State" for credentialing our medical forces. Our requirements now are SOF Paramedic with SOCM training as well, and sustainment training every two years accompanied by a renewal of our SOCOM card. MSgt Brochu and the senior medics are working the critical skills issues, we are developing training requirements that address the real issues confronting our medics, and CPT Steve Briggs and MSgt McCumsey are building the "State" board that will legitimize the entire process and draws from medical expertise around the country.

The Biomedical Initiatives group is continuing to hear of some pretty exciting initiatives that we feel will benefit our forces and is worthy of our investment. There are new compounds and techniques to preserve hearing--preserving not only the tympanic membrane from blast effects but also the nerves themselves. We are looking for new and better analgesics, new methods of delivery (intranasal, interosseous, etc), and there are some really exciting developments in oxygen generation systems with low weight and cube and high productivity out there being looked at. One of our physicians is a stand-up volunteer to oversee an FDA approved IND on HBOC and we hope to get this going soon.

So, as always, we stand ready to help you in the great job you are doing. Please keep us informed of your requirements, and all you Civil Affairs guys out there, keep on keeping on, but be careful of those who have old agendas on their mind while you are rebuilding Iraq.

GBY/GBA
dhammer

ENLISTED CORNER

SENIOR ENLISTED MEDICAL ADVISOR (SEMA), MSG Michael A. Brochu

From the ROAD DOG in the BIG HOUSE,

Seems that these quarters come faster than they should so let me try and update you on where we stand at the publishing of this edition of the journal:

First Hand Aeromedical Evacuation from OIF : This past May 03, Doc Hammer, Lt Col Paul Lunseth, and I spent 10 days moving through the AE system from point of injury all the way to Scott AFB which is one of the possible ending points for patient travel. Our mission was two fold. First we wanted to experience first hand the trials and tribulations of the AE system so that we could effect positive change if needed. Second, our main objective was to personally thank the crews throughout the system for their outstanding care rendered to our SOF troops. We were only able to thank a few of the outstanding medical crews out there and hope that those reading this journal will accept our humble thanks to you all for your AWESOME care. These crews paid out of pocket to provide home baked cookies and hot dogs for ALL the patients that came out of the theater. They could not bear to hand out MREs (authorized field ration) to the patients flying out of country so they paid for the supplies to give the men and women a true taste of home after serving our country. It may seem small to us from the puzzle palaces we occupy but if you could have seen the faces LIGHT up when the aroma of chocolate chip cookies floated throughout that aircraft. It was priceless. As an added bonus, I had the privilege to serve meals and snacks on some of the flights. Col Hammer wanted to go as forward as was allowed to witness first hand the experiences of our healthcare providers. We would like to take this chance to thank the members of SOCCENT SG office for making things happen, 5th SFG (A) and 528th

Col Hammer and MSG Brochu in Ramstein Germany during a download of patients.

Lt Col Paul Lunseth lighting up a cigar.

SOSB for their timely welcome while overseas, and all the AE hubs located throughout the AOR. We noted only a few areas that could be improved but all in all, the medical evacuation architecture was outstanding.

USSOCOM State Department of EMS and Public Health: The train is rolling and you need to be on board. A message went out (181541Z FEB 03) to the components titled INTERIM GUIDANCE FOR START-UP OF SPECIAL OPERATION FORCES EMERGENCY MEDICAL TECHNICIAN-PARAMEDIC (SOF EMT-P) CERTIFICATION. This will be the guidance until the State Requirements and the State Curriculum Review boards meet and make the recommendations that will become the new standard for USSOCOM medics. Months ago this office sent out requests to have personnel apply for all the positions on both of these boards. All but a few positions have been filled and announcements will be made public ASAP. The SRB will meet within the next few months to define the SOF-P requirements. The next step is to put those requirements into the curriculum and then develop ways to assess the healthcare provider's competency level. This curriculum (based on mission requirements) will define the length and depth of the SOCM course. When the Joint Medical Enlisted Advisory Committee (JMEAC) and the Board of Regents (BOR) approve of the curriculum THEN, and only then, will changes be made to update the current SOCM and SOFMSSC curriculum.

SOF Health Surveillance System (HSS): The office of the command surgeon here at USSOCOM has been conducting train the trainer blocks of instruction concerning the new PDAs that will be fielded to all the SOF healthcare providers. This training will be completed by the end of July 03 and the 605 PDAs (Compaq Ipaq) will be issued to the component surgeon's office for distribution. This system will assist you, the SOF medic, in capturing all medical encounters in the field. We need your feedback to make the necessary changes so we can provide you with the best device in the out years. The information gathered from these devices is stored in the USSOCOM repository on the secure side. In the future this information will be available to you by way of secure access and password. You will be assigned certain permissions while logged onto the repository which may allow you to update pre-deployment information. Keep in mind that this repository is still immature and will only get better. These devices also have many medical reference materials such as the SOF Medical Handbook.

Journal of Special Operations Medicine: This journal is in its third year and continues to gather notoriety with each edition. If you have read it, then you know it is a quality product. I urge the medics out there to take charge of this publication and fill it with what you would like to have published in it. What I want from you all are ARTICLES. These articles will help your fellow road dogs in areas that you may have had to learn OJT. CME provision is a hot topic here in the Surgeon's office; the JSOM has been working hard to provide you with quality articles that make available another means of obtaining your required CME. The medics are NOT using them as much as the docs. Within the last two years only a handful of enlisted medics have applied for credit. This publication will be a major area that SOF-P can get some of the REQUIRED CME's at no cost to the command. Listen! The docs (as much as we love them) have all kinds of journals they can write articles for and get published in. This journal was and is produced for the SOF medic so you guys have to get

fired up and send in your stuff. At the present, I'm sure in large part due to recent deployments, no one submitted any CME articles for this edition. We need you to write and encourage others to write. What is required for an article to be given CME credit is length. At the Uniformed Services University of Health Sciences the submitted articles are reviewed for accuracy and relevance and then beta tested for how long it takes to read the article and take the test. Many of the articles that have been submitted just don't take that long to read and therefore we cannot get CME credit for them. Trying to obtain CME articles takes too much of the JSOM's staffs' time and effort to not have any of you take the time to utilize it. You tell us, do you want us to continue to provide them to you? If you do, we expect that you will take advantage of them. Let us know; contact either Maj DuGuay or at myself. In addition, pictures are always needed. Help us help you!!!!

Long range dates for future JMEAC: All enlisted folks are invited to these meetings. That is the main reason I select sites around the country. It gives ya'll a chance to be a participant instead of just being in the back of the patrol wondering when is the next patrol base! You are the blood of the Enlisted Advisory Committee. Link up with your SEMA and ask to be allowed to attend. We can only speak for you if we have your feedback

26-27 Aug 03, USASOC (Rangers at Ft Benning, GA will host)
5-6 Dec 03, USSOCOM will host at the SOMA conference in Tampa, FL

If you have suggestions, concerns, and/or recommendations for the JMEAC, pass them along to your SEMA and it will be addressed. The only thing that is required is that you……..
"SEND IT"

COVER

Army Sgt 1st Class Victor Andersen, a Special Forces medical sergeant with the 96th Civil Affairs Battalion from Fort Bragg, NC, tends to an Afghan boy who had been bitten by his donkey. Photo courtesy of Sgt 1st Class Victor Andersen, USA.

The *Journal of Special Operations Medicine* is an authorized official quarterly publication of the United States Special Operations Command, MacDill Air Force Base, Florida. It is in no way associated with the civilian Special Operations Medical Association (SOMA). Our mission is to promote the professional development of Special Operations medical personnel by providing a forum for the examination of the latest advancements in medicine.

Disclosure: The views contained herein are those of the authors and do not necessarily reflect official Department of Defense position. The United States Special Operations Command and the *Journal of Special Operations Medicine* do not hold themselves responsible for statements or products discussed in the articles. Unless so stated, material in the JSOM does not reflect the endorsement, official attitude, or position of the USSOCOM-SG or of the Editorial Board.

Articles, photos, artwork, and letters are invited, as are comments and criticism, and should be addressed to Editor, Journal of Special Operations Medicine, USSOCOM, SOC-SG, 7701 Tampa Point Blvd., MacDill AFB, FL 33621-5323. Telephone: DSN 299-5442, commercial: (813) 828-5442, fax: -2568; e-mail JSOM@socom.mil.

All scientific articles are peer-reviewed prior to publication. The *Journal Of Special Operations Medicine* reserves the right to edit all material. No payments can be made for manuscripts submitted for publication. Published works may be reprinted, except where copyrighted, provided credit is given to the *Journal of Special Operations Medicine* and the authors.

From The Staff

Just a reminder that there are important changes in the distribution of the *Journal of Special Operations Medicine* (JSOM) you need to be aware of. To assure the JSOM continues to be available to all who find value in it, we need to comply with the intent of the current distribution rules governing this publication.

We will continue to send the JSOM to all our SOF units and the active editorial consultants without change. One of the new changes in SOMA membership is that you will now receive the JSOM as part of your membership. If you are a SOMA member and did not receive your journal, you can contact SOMA through www.specialoperationsmedicalassociation.org. The JSOM is also available as a paid subscription from the Superintendent of Documents, US Government Printing Office, for only $30 a year at http://bookstore.gpo.gov/subscriptions/sub011.html#006. Thank you for understanding our need to change the distribution of the JSOM in order to be in compliance with current distribution rules.

***WE ARE ONLINE*!!! Thanks to the cooperation and efforts of the Joint Special Operations University, the JSOM is now available online to all DoD in DEERS at http://www.hurlburt.af.mil/jsou. There are instructions on their homepage as to how to enter their medical link and access issues of the JSOM. You can even link straight to the Government Printing Office to subscribe to the JSOM.**

We are now in our eleventh edition of the journal and continue to need your article submissions and photos. They are what keeps us going and they're what makes this journal so unique. It is a sharing of your lives and missions as you go forth as instruments of national foreign policy. We can't do it without your input; you are what the journal is all about!

The JSOM is one of the most excellent and righteous tools we have to span all the SOF services and to share medical information and experiences unique to this community. The JSOM survives because of generous but time-consuming contributions sent in by clinicians, researchers, and current and former medics from all the Services who were SOF-qualified and/or who served with SOF units. We need your help! Get published in a peer-review journal NOW! We are always looking for SOF-related articles from current and/or former SOF medical veterans. We need you to submit articles that deal with trauma, infectious disease processes, and/or environment and wilderness medicine. We also need photos to accompany the articles or alone to be included in the photo gallery associated with medical guys and/or training. If you have contributions great or small… fire 'em our way. Our E-mail is: JSOM@socom.mil.

In order to give CME to you, you all have to submit the articles to us. Remember, this is YOUR journal. CME provision is a hot topic here in the Surgeon's office; the JSOM has been working hard to provide you with quality articles that make available another means of obtaining your required CME. The medics are NOT using them as much as the docs. Within the last two years only a handful of enlisted medics have applied for credit. As MSG Brochu states, "this publication will be a major area that SOF-P can get some of the REQUIRED CME)s at no cost to the command. This journal was and is produced for the SOF medic so you guys have to get fired up and send in your stuff." We need you to write and encourage others to write. You all have a lot to say; share it with others. Potential articles are submitted to the Uniformed Services University of Health Sciences to be reviewed for accuracy and relevance and then beta tested for how long it takes to read the article and take the test. Many of the articles that have been submitted just don't take long enough to read and therefore we cannot get CME credit for them.

In this edition of the JSOM, we honor our fallen brother, SFC Peter P. Tycz II.

Enjoy this edition of the journal, send us your feedback, and get those article submissions in to us!

Major DuGuay

Journal of Special Operations Medicine

Meet Your JSOM Staff

Executive EDITOR
David L. Hammer, MD
Hammerd@socom.mil

Colonel Hammer's military and medical career began in 1958 when he served as a U.S. Navy Combat Medical Corpsman attached to U.S. Marine Corps infantry, artillery, and communication/reconnaissance units. Following discharge, he completed his BS and MD degrees at the University of Michigan in 1967 and 1970, respectively. Following nine years of civilian medical practice in a multi-specialty group in Grand Rapids, Michigan, he reentered military service as a Flight Surgeon at Beale AFB, CA. In 1984, he completed the Air Force Residency in Aerospace Medicine at Brooks AFB, Texas, during which period he earned a Masters in Public Health Degree from Harvard University. Colonel Hammer has spent the majority of his career in aerospace medicine and direct line support assignments, has commanded three medical groups, and has been assigned to the ARRS/SG, the AFSOC/SG and the USAFA/SG. He is a chief flight surgeon and a master parachutist.

PRODUCTION EDITOR
Michelle D. DuGuay, RN
Duguaym@socom.mil

Maj DuGuay joined the Army Reserve in 1987 and served as a nurse in a Combat Support Hospital unit for three years before switching services in 1990 to become an Air Force C-130 Flight Nurse. She is currently an IMA reservist attached to the SOCOM/SG office. Maj DuGuay has a Bachelors in Nursing and a MBA/Management. Her career includes being a flight nurse in both the military and private sector, 15 years of critical care and emergency room nursing experience, plus being an EMT and a legal nurse consultant. She also served as the military liaison to her Disaster Medical Assistance Team (DMAT.) Prior to the SG office, Maj DuGuay's experience at USSOCOM includes an assignment in the Center for Force Structure, Resources, Requirements, and Strategic Assessments.

Contents

Summer 2003 ***Volume 3, Edition 3***

GENERAL RULES FOR SUBMISSIONS

1. Use the active voice when possible.

2. Secure permission before including names of personnel mentioned in your piece. Do not violate copyright laws. If the work has been published before, include that information with your submission.

3. Articles should be double-spaced, twelve point font, aligned on the left and justified on the right.

4. Important: Include an abstract, biography, and photo of yourself as part of the article.

5. Use of acronyms should be held to a minimum and when used they must be spelled out the first time.

6. Remember that your audience is inter-service, civilian, and international.

7. Every article has a point to make, which is traditionally stated in the introductory paragraph and restated in the closing or summary. Subtlety is not usually a virtue in a medical publication.

8. All references MUST be cited in the text and in numerical order. The references MUST be arranged in the order of appearance in the text. Give the full name of the journal. Use the following style of citation: author names, title of article: journal name, year, volume number, inclusive page numbers. If unsure, please contact us at JSOM@socom.mil.

9. Photographs with your article are highly encouraged. Photos must be sent separately from the document so they can be converted into a publishing format. Where possible, traditional ("hard copy") photos should be sent, however, scanned and digitized copies can be used but please make as large as possible, even if you have to send them one at a time. Every attempt to return your original pictures will be made, but the JSOM will not be held accountable for lost or damaged items.

10. Send submissions by e-mail, diskette, CD, or plain paper to the Editor. E-mail: JSOM@socom.mil or by mail to: USSOCOM Surgeon's Office. Submissions may also be sent to the physical address at: United States Special Operations Command ATTN: SOCS-SG/ JSOM CME Department 7701 Tampa Point Blvd MacDill AFB, FL 33621-5323.
Retain a copy for yourself.

11. We reserve the right to edit all material for content and style. We will not change the author's original point or contention, but may edit clichés, abbreviations, vernacular etc. Whenever possible, we will give the author a chance to respond to and approve such changes.

12. Again, the JSOM is your journal. It is a unique chance for you to pass your legacy to the SOF medical community.

Take advantage of the opportunity.

USASOC

Rocky Farr, MD
COL, USA
Command Surgeon

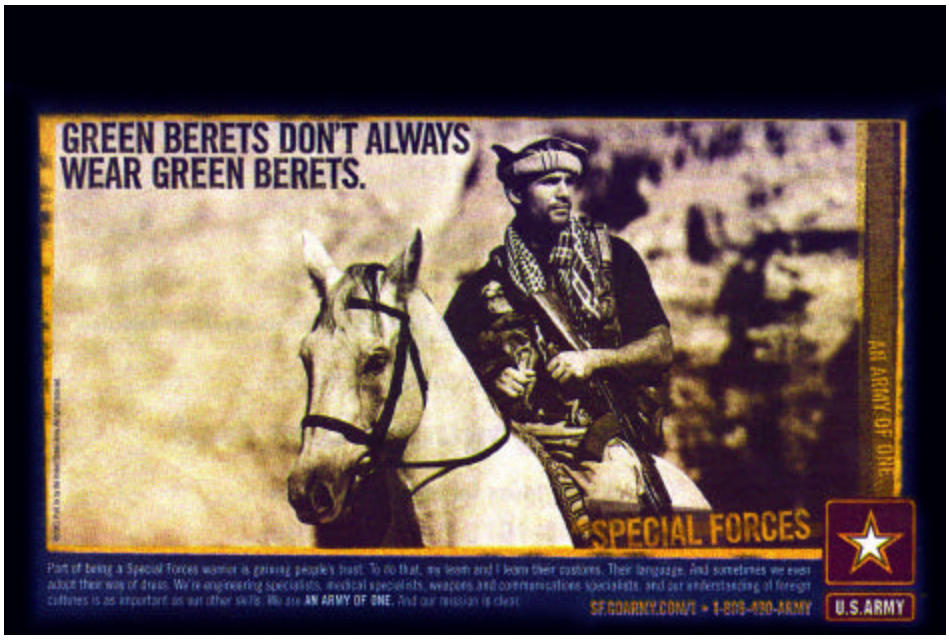
We are currently in the midst of both the post-war reconstitution and recocking/rearming of all of our units and the summer rotation of personnel. So much is ongoing. I would like to thank all our reserve and National Guard soldiers that we called up for a job well done as they demobilize to resume normal, civilian life--*until we need them again!* In my office Colonel Diamond, Major Sully, Major Dunn, Lieutenant Goins, and Lieutenant Sheley have all soldiered long and hard to insure all the forces we provided wanted for nothing. It has been a real pleasure to see nearly all of the US Army Civil Affairs & Psychological Operations Command AMEDD personnel as they flowed through Fort Bragg. We tried to outfit them with all the knowledge we could or at least our email addresses for reach back! The mobilization of the National Guard Special Forces has done much to bring their skill level up to a higher level than I think we have seen since Vietnam. Many thanks to the 19th and 20th Special Forces Group (Airborne) Surgeons, Colonel Mouri and Lieutenant Colonel Ludlow.

With extensions, stop loss, and mobilized reserve soldiers we seemed to have had much less turmoil last summer. New equipment is now hitting many units, as are new personnel slots. The Special Forces groups get their physical therapy officers (Captains Guffie, Loro, Teich, Campbell, and Allen) this summer and a physical therapy Medical Equipment Set (MES) to go with them. LTC Dakin has been orchestrating assignments for all the new officers and Major Sully is building all the new MESs. New Special Forces book sets are on the way as well as new, and differently packaged, 18D medical laboratory sets. The 160th Special Operations Aviation Regiment (Airborne) gets several more medical officer/flight surgeon slots in various locations and an Aeromedical physician assistant slot also. The Special Operations Support Command is getting more medical officers and some reserve medical structure to boot. Even with all the new slots there is less turnover as medical officers in particular are staying longer since they come with residency already out of the way. I am happily in the position of having five or ten well-qualified applicants for each open position. We will have our 3-day introductory course, SOMIC (Special Operations Medical Indoctrination Course), right after Labor Day for all the newbies. Major Abner is busy arranging curriculum, seats, billeting, and other details of probably the biggest SOMIC ever with the PT officers attending with the new docs and PAs. I would like to thank all the departing medical officers for their service to the community and I want you back someday!

The new SOF EMT-P card is out on the street and simplifies recertification after extended missions where medics have had their certification expire to a much simpler reentry process. In addition, this is a chance to realign the sustainment training to subjects more military and more valuable to us. There is a rumor on the street that the AFSOC medics might even return to JSOMTC! I have been trying to go down (three whole blocks!) and see each SOFMSSP class that comes through.

MACOMs like USASOC spent a lot of time looking into the future for ways to change both future force structure and future personnel structure. The Command Surgeon's office (now under the latest headquarters redesign named: "*The Deputy Chief of Staff, Surgeon"*) has been fully involved in working on various working groups on future force design for special forces groups, Ranger regiments, special operations aviation, special operations support command, etc., etc. Major Abner has continued to be our doctrinal expert in TO&E changes and future force structure! I think we are doing good job in making sure the medical parts of these new structures is robust.

We are planning to have the USASOC Surgeon's Conference on Saturday and Sunday, 6-7 December 2003 in Tampa right before the Special Operations Medical Association conference, 8-12 December. My office will go in force--see you there.



Doctors, COLs Anderson and Frame walk through the entrance to the Military Iraqi Hospital on April 5, 2003. The doctors are in search of any equipment or supplies that can be saved. The hospital has been in a state of disaster since Operation Iraqi Freedom began.

COL Anderson, COL Frame, Major Donavan, and Specialist Lang were ambushed by an Iraqi rebel on April 27, 2003 while on their way to a meeting in Medical City. All men suffered injuries from the rebel's AK-47. Dr. Anderson was able to stop the assailant. He returned fire, killing the assailant and then gave medical attention to the other wounded personnel of the convoy. COL Anderson received a Bronze Star for his heroics.

(U.S. Army official photo by Staff Sgt. Olga Steiert) (Released)

COMPONENT SURGEON

NAVSPECWARCOM

Edward Woods, MD
CAPT, USN
Command Surgeon

Welcome to AFSOC and USSOCOM CAPT Woods

Captain Edward Andrew (Andy) Woods has taken over from Captain Larry S. Garsha as the new Naval Special Warfare Command Force Medical Officer. He comes to his new job from Naval Medical Clinic Pearl Harbor where he worked as the Director of Branch Medical Clinic Pearl Harbor from February 2000 through June 2001 and as the Director for Clinical Services from July 2001 until his transfer to WARCOM. Prior to his assignment at Pearl Harbor he completed a fulltime out service residency in PM&R at the University of Missouri in Columbia from 1993-1996 followed by a utilization tour as the Senior Medical Officer of Branch Clinic Tranquility at Naval Medical Hospital Great Lakes from 1996-1999.

His involvement in operational medicine began prior to residency in 1987 when he completed a pediatric internship at Naval Medical Center Portsmouth and was assigned to the USS Puget Sound (AD 38) as the ship's general medical officer.

His sea duty tour was followed by attendance at the Naval Undersea Medical Institute in Groton, Connecticut and orders to Submarine Squadron Seven at Pearl Harbor from 1990 until 1993. Dr Woods hails from the state of Florida and grew up in that state as well as North Carolina and Tennessee. He graduated from the University of Tennessee with a BA majoring in biology. He completed a masters degree in Biological Oceanography at Texas A&M in 1982 and earned his medical degree from the University of Texas in Galveston on a Navy Health Professions Scholarship Program.

Captain Woods views his new job as a resource manager and quality assurance agent for the Naval Special Warfare community. He will draw off his experience with senior mentors in the enlisted and officer communities to assure medical care for Navy Special Operations is practiced at the highest level.

AFSOC

Dan Wyman, MD
Col, USAF
Command Surgeon

Welcome to AFSOC and USSOCOM Col Wyman

As was indicated in the Spring 2003 Journal, Dr Dougherty has moved from his AFSOC/SG position and we welcome our new AFSOC/Surgeon, Col Dan Wyman. He will arrive at AFSOC in early August and the journal staff would like to provide his biographic sketch as an introduction.

Colonel Wyman was born in Las Vegas, Nevada. He graduated with distinction from the United States Air Force Academy in 1981, receiving the Academic Performance Award. He was awarded a Medical Doctorate degree from the University of Nevada School of Medicine in 1985 and was commissioned as a Captain in the US Air Force under the Health Professions Scholarship Program in May 1985. Colonel Wyman completed a residency in Family Practice at David Grant USAF Medical Center, Travis AFB, CA, in 1988. Following this residency, Colonel Wyman served as a Family Physician at the 36 TFW (Geilenkirchen NATO AB) Clinic and then as a Squadron Medical Element Flight Surgeon for the 63rd Fighter Squadron, MacDill AFB, FL. During Operation Desert Shield/Storm, Colonel Wyman served as a flight surgeon for the 401 FW, Torrejon AB, Spain. In 1993 he deployed to Riyadh, Saudi Arabia for Operation Southern Watch and served as Commander, 4409 Operations Group/Medical Detachment. Colonel Wyman completed a dual residency in Aerospace Medicine and Occupational Medicine at Brooks AFB, TX, in 1997 and then served as Commander, 18th Aerospace Medicine Squadron, Kadena AB, Japan and as the 8th Medical Group Commander, Kunsan AB, ROK from June 2000 – June 2001. He then served as the Chief of Aerospace Medicine Division, Office of the Command Surgeon, HQ Air Combat Command, Langley AFB, VA. Most recently, Colonel Wyman served as the Commander, 325th Medical Group, Tyndall AFB, FL.

Colonel Wyman is board certified in Family Practice, Aerospace Medicine, and Occupational Medicine and holds a Masters Degree in Public Health. Colonel Wyman is a senior flight surgeon with over 500 flying hours.

EDUCATION

1981 Bachelor of Science degree, USAFA
1985 Medical Doctorate, University of Nevada School of Medicine
1988 Residency in Family Practice, David Grant USAF Medical Center
1994 Air Command and Staff College, seminar

1995 Master's degree in Public Health, University of Texas School of Public Health
1996 Air War College, seminar
1997 Residency in Aerospace Medicine, USAF School of Aerospace Medicine

ASSIGNMENTS

Jul 1985 - Jul 1988, Resident and Chief Resident, Family Practice Residency, David Grant USAF Medical Center, Travis AFB, CA
Jul 1988 - Jul 1991, Family Practice Physician/Chief, Family Practice, 36 TFW (Geilenkirchen NATO AB) Clinic, Germany
Jul 1991 - Jul 1994, Squadron Medical Element Flight Surgeon, 63 FS and Officer in Charge, Flight Medicine, 56 FW Medical Group, MacDill AFB, FL
Jul 1994 - Jul 1997, Resident in Aerospace Medicine, School of Aerospace Medicine, Brooks AFB, TX
Jul 1997 - May 2000, Commander, 18th Aerospace Medicine Squadron, Kadena AB, Japan
Jun 2000 - Jun 2001, Commander, 8th Medical Group, Kunsan AB, ROK
Jul 2001 - Jun 2002, Chief of Aerospace Medicine Division, Office of the Command Surgeon, HQ Air Combat Command, Langley AFB, VA
Jun 2002 - Aug 2003, Commander, 325th Medical Group, Tyndall AFB, FL

MAJOR AWARDS AND DECORATIONS

Air Force Meritorious Service Medal with two oak leaf clusters
Air Force Commendation Medal

PROFESSIONAL AFFILIATIONS

American Academy of Family Practice
Uniformed Services Academy of Family Practice
Diplomate, American Board of Family Practice
Society of US Air Force Flight Surgeons
Associate Fellow, Aerospace Medical Association
American Academy of Preventive Medicine
Diplomate, American Board of Preventive Medicine, Aerospace Medicine and Occupational Medicine
American College of Physician Executives

EFFECTIVE DATES OF PROMOTION

Captain	Apr 28, 1985
Major	Apr 28, 1991
Lieutenant Colonel	May 30, 1996
Colonel	May 31, 2000

Current as of Jul 2003

Education & Training

Understanding the SOF Health Surveillance System (HSS)

Capt Cory Hunt

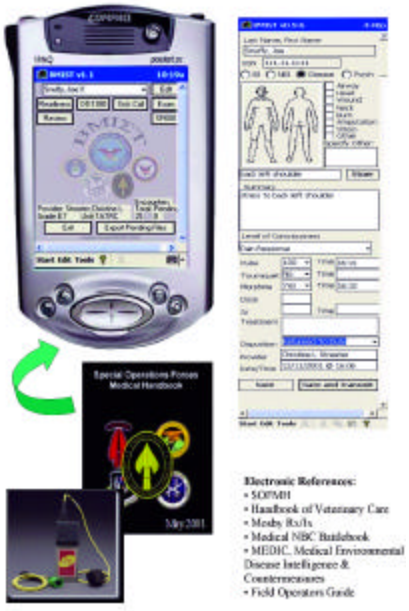
If you as healthcare providers haven't already encountered the new handheld Battlefield Medical Information System-Telemedicine (BMIS-T), be on the lookout. You'll be amazed at the ease of data transfer, form completion, and patient tracking. Training has begun on the first of 600 Compac IPACs to be distributed to SOF healthcare providers. The actual hands-on training class takes a half day and encompasses everything from familiarization with the IPAC, software loading, and stand-alone computer set-up, to actual patient data entry and data transfer. For those of you unsure about using a high-tech device, no need to worry. The training also covers a multitude of common problems and how to fix them.

The BMIS-T program allows you, the healthcare provider, to input patient personal data, SF 600s, DD 1380, readiness, med evac, sick call encounters, and, in the near future, the pre/post deployment forms. You will find that the system is very easy to use and will eliminate the need for pen and paper as well as the need to carry medical reference manuals.

The handheld device is loaded with the SOF Medical Handbook, veterinary medicine book, and many other commonly carried references. Before deployment, you can take your personnel roster and load it on the IPAC. Once deployed, you can add or delete patients as needed. When a patient comes in to be seen, you can pull them up by name, choose the type of encounter/form, and then save the data once the exam and/or treatment is complete. You can review the exams once saved and add on a reassessment later should a patient come back for a follow-up exam. Then, when you get the opportunity, you can download the patient information to a stand-alone computer and send, via SIPRNET, the information back to the SOF Health Surveillance repository at USSOCOM. Once the information is received, the data is entered into the SOF database and the patient encounter forms are printed and mailed to the patient's home unit to be placed in their medical record. In this manner, medical information is readily available to the end user and promotes data capture and analysis.

For further information on the Health Surveillance System contact:

United States Special Operations Command
Attn: Maj Richard Hartman
7701 Tampa Point Blvd
Macdill AFB, Fl 33621-5323
Commercial: (813) 828-5442 DSN: 968-5442
e-mail: hartmar@socom.mil



Research & Development

USSOCOM Biomedical Initiatives Steering Committee (BISC)

Mr Bob Clayton

Some of you may remember an article very much like this one in an earlier edition of the ***Journal of Special Operations Medicine***. Recently it was brought to my attention that some of the medics at the operational level were asking how to get ideas to the BISC for research or funding consideration. So I will provide a refresher on how to get an idea from the rucksack to the Special Operations Acquisition and Logistics–Technology (SOAL-T) Medical Technology (MEDTECH) Program Manager (PM) at USSOCOM and an overview of the functions of the BISC.

In 1994, the Biomedical Initiatives Steering Committee (BISC) was chartered under USSOCOM Directive 40-1. It was organized to support the Special Operations (SO) component medical issues. Some of the peculiarities of SO medicine were in a void at the service component medical commands. The BISC is made up of a chairman, usually the USSOCOM Surgeon, the four component surgeons or their designated representatives, and the Dean of the JSOMTC. Each component surgeon is a voting member of the process; the Dean acts as an advisor. Each component surgeon is tasked with bringing their component medical needs or requirements to the BISC. Those needs are prioritized based upon established criteria. In the event of any conflict or tie votes the BISC Chairman makes the final decision. Once the projects or research topics are prioritized, they are sent to the PM MEDTECH for funding and program management.

There are several factors that enter into the process of project selection. The number one consideration for all MEDTECH programs is the first SOF Truth: "Humans are more important than hardware." The BISC has been very successful in leveraging major DOD medical research and development programs, and is careful not to duplicate ongoing research efforts. The MEDTECH program funds research in ergonomics, performance enhancements, Combat Casualty Care procedures and protocols, and other operationally significant areas of interest. There are three primary methods to solicit research efforts:

(1) the BISC members prepare and submit research topics in a Task Statement format. The Task Statements are then sent out to governmental laboratories, academia, industry, and other agencies that conduct medical R&D activities;

(2) the PM MEDTECH publishes a Broad Agency Announcement (BAA) that lists general research topics that are relevant to SOF;

(3) the Command sponsors a Small Business Innovative Research (SBIR) program that encourages small business to submit proposals to solve specific requirements.

The Command also receives a large number of unsolicited proposals. Each proposal is evaluated and ranked according to the needs or applicability to SOF requirements.

In a nutshell, this is how the process works at this end. Now how does it get energized from the operational level? Each component has a process that works about the same, but may have minor variations. If your unit has a Force Development Office or a Force Integration Office, that is a good thing. If not, each of you have a senior medic, a SOF Truths, and a command surgeon. The first thing you need to do is to "state your need." Medical needs are a bit different than normal acquisition programs. To enter into a full blown medical R&D program, it takes years of research and development cost, and normally years of clinical trials in order to get the Federal Drug Administration (FDA) approval. In a situation like this, we would push the requirement to an agency like the Medical Research and Materiel Command (MRMC). In most other situations, you might run across an item or device that is being used in the civilian sector that has application to what you do or need or there could be an operational limitation

or capability that you would like to see improved. Submit your ideas to your component representative; they will write up the task statement and submit it to the BISC.

Some of the recent past research efforts that the components have submitted to the BISC for research include: high altitude parachute operations in conjunction with diving operations; LASIK procedures and the impact on the SOF operational community; Human Patient Simulators for SOF medical training; Medical Skills Utilization Study; Ergogenics in SOF (Creatine) Study; casualty evacuation delays and outcomes; dive planner and decompression computers/algorithms; dry fibrin bandage/dressing; the SOF Medical Handbook; motion sickness preventive measures in SOF mobility platforms; warm water diving issues; advanced combat casualty care protocols in the operational environment; rapid field diagnostics systems; detection and determination of laser injuries; circadian rhythm adjustments, operational considerations, and alternatives; swimming-induced pulmonary edema; reversal of cold-related performance deficits; medical orientation for mission planners/commanders; lessons learned from Operation Enduring Freedom; Tactical Combat Casualty Care Panel.

The USSOCOM Surgeons Office, in conjunction with the component surgeons, maintains a degree of technology oversight as well as operational awareness to the needs of the SOF medical community. As the saying goes "Two heads are better than one," the same applies to assessing the needs of the operational community. It is important that each medic, PA, and physician in SOF assess the unit's ability to perform its mission.

The current BISC members are:

Col David Hammer, USSSOCOM SG, Chairman
COL Rocky Farr, USASOC SG, voting member
Mr. Joe Marak, USASOC, Medical Requirements Specialist
CAPT Edward Woods, NAVSPECWARCOM SG, voting member
CAPT Frank K. Butler, NAVSPECWARCOM, Director Biomedical R&D
Col Daniel Wyman, AFSOC SG, voting member
Lt Col Robert Michaelson, AFSOC, BISC representative
COL Tom Deal, JSOC SG, voting member
Major Robert Lutz, JSOC SG, BISC representative
COL Kevin Keenan, Dean JSOMTC, BISC advisor

The MEDTECH Program Manager is Mr. Dave Saren. If all else fails, contact me, the Biomedical R&D Coordinator, Bob Clayton at claytor@socom.mil .

The Incident Command System: What Military Responders Must Know

Christopher Trumble

ABSTRACT

The recent past and present attacks upon the citizens of the United States abroad and on domestic soil have resulted in numerous multi-agency and multi-jurisdictional task forces being formed to rapidly react to incidents. The problems associated with the command, control, and coordination of responders has been mitigated in the past by using the Incident Command System (ICS). This article provides an overview/review of the ICS. The information is presented in a concise format that focuses on the basic design, construction, utilization, components, and nomenclature associated with the ICS.

Objectives:

1. Maximize the overall efficiency and safety of a multi-agency response to any major incident through increasing individual responders familiarity with ICS.
2. Provide a valuable management tool to responders and potential Incident Commanders that will favorably increase their contribution at incidents requiring multi-agency response.

The reality of current operations and threats means that Federal, state, and local emergency response agencies (including National Guard and active duty military) will find themselves working side-by-side in future disasters and mass casualty incidents (MCI). Many of these organizations have never worked together before, and the cultural and organizational differences pose huge problems in efficiency and cooperation. Traditional military command, control, and coordination structures may not be compatible with the structures adopted by civilian response agencies. Also, from one military service to another, there are service-specific chain of command procedures that can cause breakdown in communications during critical joint operations.

Since the United States government has increased the nation's focus on homeland security and the military has provided assistance during wildfires in the western United States, it is apparent that military personnel need to be familiar with the Incident Command System (ICS). Military personnel that coordinate multi-jurisdictional and multi-agency efforts, specifically special operations medics, will benefit from increasing their understanding of this valuable management tool.

To mitigate confusion at critical times, fire departments, law enforcement agencies, emergency medical services, and the Red Cross have established the ICS. The ICS varies from jurisdiction to jurisdiction, but follows certain common principles. Understanding how all agencies and individuals participate in the system to coordinate and improve incident response is vital to military responders.

The ICS was developed in the 1970s as a direct result of several recurring problems identified during response to southern California wildfires. Federal, state, county, and municipal fire agencies joined forces and formed the Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE). Since then, agencies have used the ICS to respond to hazardous materials (Hazmat) incidents, planned events and celebrations, natural disasters, multi-agency incidents, search and rescue (SAR), and numerous other incidents.

FIRESCOPE identified a number of problems that continually plagued efforts at command,

control, and coordination of multi-jurisdictional, multi-agency operations. Among these were: non-standard terminology among different agencies, established command structures without ability to expand and contract as the incident increased or decreased in magnitude, lack of communications compatibility, action plans that were not consolidated, and designated facilities that were either absent or, if established, not everyone was aware of. ICS was developed to resolve these problems, as key management principles are applied in a standardized way within a common organizational structure.

As testament to the success of ICS, the Federal government mandates its use in response to all Hazmat incidents. ICS has been endorsed by the American Public Works Association and the International Chiefs of Police and has been adopted by the National Fire Academy as the standard for command, control, and coordination (C3) of incident response. The National Fire Protection Association (NFPA) includes ICS as a component of their NFPA 1600, *Recommended Practice for Disaster Management*. The National Interagency Incident Management System (NIIMS) has ICS as an integral component of their program as well.

The ICS system works in a logical, straightforward, simple means by establishing a leader, referred to as an *incident commander* (IC). The IC is the most qualified individual, not necessarily the most senior or highest in rank, at the incident at the time. The person holding this position may change as the situation warrants. If and when there is a change of IC, the person leaving the position thoroughly briefs the person taking over. This holds true for each and every position within the structure of the ICS; you do not leave a position, for any reason, without giving your successor a situation report. For obvious reasons, your successor needs to know what you have done and what remains to be done.

Once the IC is selected, a command staff consisting of four components is established: a planning section, an operations section, a logistics section, and a finance/administration section. A diagram of the structure is depicted in figure 1.

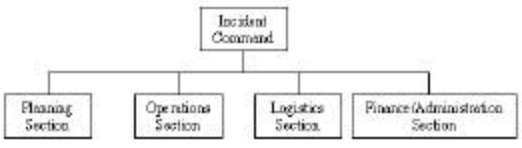


Figure 1 Basic structure of ICS

This structure remains constant regardless of the incident or its magnitude. In a small-scale incident one person may manage all the components. Large-scale incidents will require separate managers for each section.

The following scenario represents a small-scale use of ICS: the victim reports a home invasion and assault to 911. The police respond with EMS personnel and fire-rescue. No other agencies are dispatched. Thus, the ICS would be fairly small. Figure 2 depicts a structure for this incident:

Figure 2 Example of ICS in small-scale incident

The senior officer serves the function of the incident command staff and performs all of the functions of the planning, operations, logistics, and finance/administration sections. The structure of the response team will expand and contract with the managing of the incident, the number of responders, etc. If the incident begins to increase in magnitude, such as a newsworthy event (e.g. hostage situation or suicide-murder), there may be a need to establish other command staff positions. These include information officer, safety officer, and liaison officer (figure 3).

Figure 3 Other command staff positions

The information officer will handle media inquiries and coordinate the release of information if necessary. The safety officer monitors the incident for safety issues and ensures the safety of all responders and victims. The liaison officer is the on-scene contact for agencies responding to the incident. Thus, if you are responding to an MCI, and a reporter approached you, you would politely refer him to the information officer. If you see or are aware of safety issues, then the safety officer should be notified. If personnel approach you and inform you that they have arrived to provide assistance, you would send them to the liaison officer and/or the appropriate

staging area. By everyone following these procedures it is easy to maintain control over an incident or event.

Using the previous example (figure 2), if the person who was assaulted was a well-known personality, there may be news media rapidly arriving and that may necessitate having an information officer present to handle questions from the media. The structure would then be modified (figure 4).

Figure 4 Example of ICS in a multi-scale incident expanded with additional command staff position

ICS works fine for small-scale incidents involving a few agencies, but what about a major large scale incident with multiple agencies responding? The IC will expand or contract the ICS organization chart based upon three major priorities:

- Life safety — The IC will first consider the safety of the responders and the general public. If expansion of the organization will increase safety, then the IC will add sections as necessary.
- Incident stability — The IC will select the best size ICS organization that will ensure incident stability by minimizing the effect the incident may have on the surrounding area and yet maximize the efficiency of the responders and their resources.
- Property Conservation — The IC must ensure that property damage is kept at a minimum during the process of achieving incident objectives.

In larger-scale incidents, the command functions of planning, operations, logistics, and finance/administration will be separate from the IC's position. The *planning section* collects, evaluates, disseminates, and uses information about the incident's progress and resources. The planning section may also be tasked with creating an Incident Action Plan (IAP). The IAP will define response activities and resource utilization for a specified period of time. The *operations section's* duty is to execute the response contained within the IAP. This will include: directing all operations while ensuring safety, assisting the IC to develop goals and objectives, requesting (or releasing) resources through the IC, and providing the IC operational situation reports (SITREPs).

The *logistics section* is responsible for providing the facilities, services, and materials necessary (this includes personnel to operate equipment) to respond to the incident. The logistics section is focused on materially supporting the incident responders. If there is a medical unit within the logistics section, it treats responders, not victims.

The *financial/administration section* tracks the costs associated with the incident. This is important to managing budgets, ensuring adequate funding is available to successfully complete the response, and after the response, accounting for expenditures. An example of an expanded organization structure for a major incident is depicted in figure 5.

Many companies supply ICS-compatible identification kits and planning tools that may be reused at events and have proved useful at large-scale incidents. Figure 6 illustrates a prepackaged kit that includes identification vests to identify personnel by job function, flags to identify areas, triage cards to prioritize casualty treatment and/or evacuation status, and a dry erase planning board to depict the ICS structure most suitable for the incident. This particular kit is designed by AMEC and retails for approximately $500. A customized kit, with greater or fewer supplies, can be assembled using individual items to best meet your specific requirements.

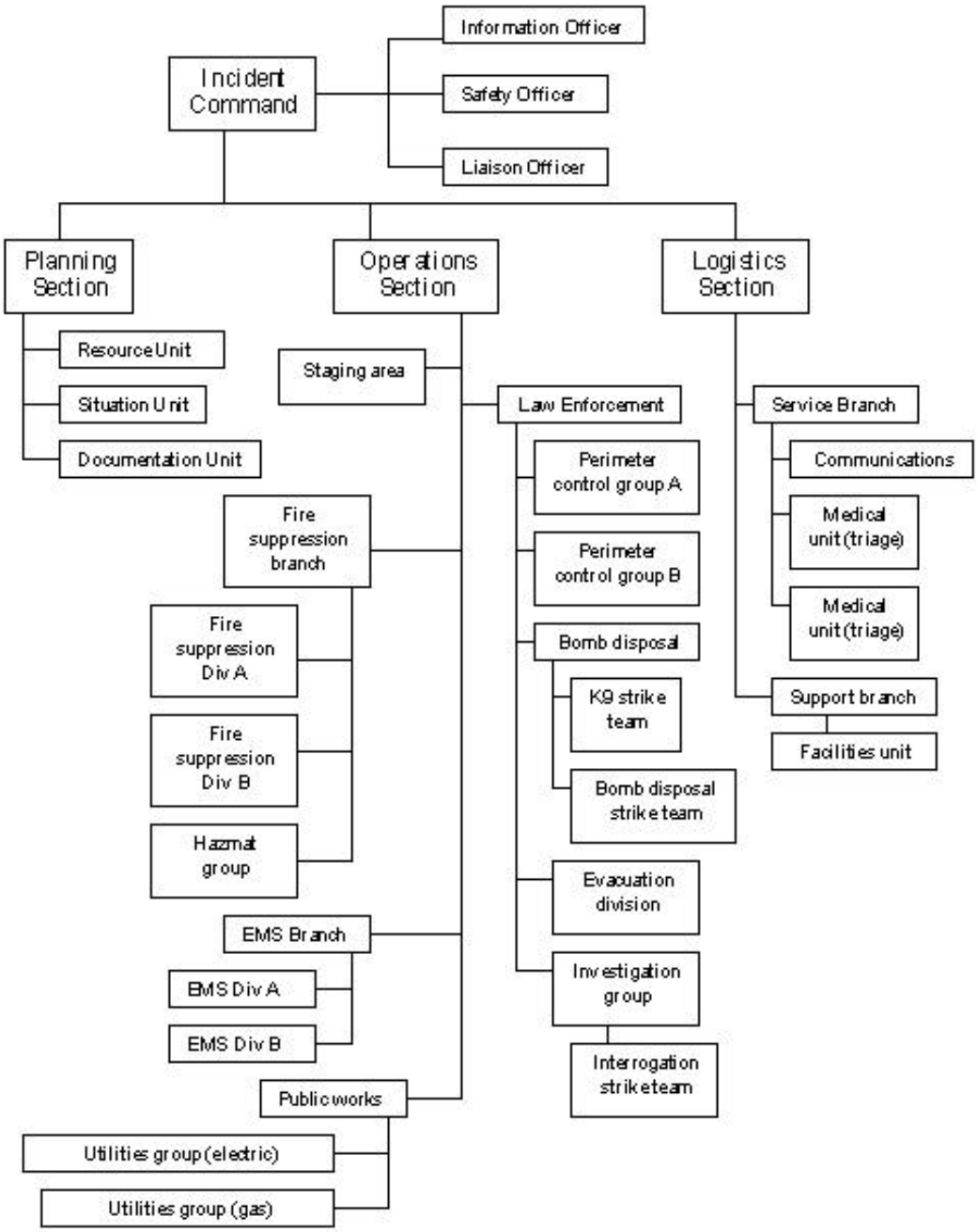


Figure 5 Expanded organization structure for a major incident

Figure 6. Mass Casualty Incident Management System (from AMEC)

Triage cards are standardized by using a priority color code system: black for deceased or expectant, red for immediate evacuation or treatment, yellow for the next level of treatment or evacuation, green for the least urgent level of treatment or evacuation that is necessary. The triage cards are

constructed of highly durable coated paper and are weather proof with a grommet and plastic attachment lanyard to assist in affixing the card to the patient. Examples of various triage cards manufactured are depicted in figure 7. Triage cards are generally packaged in lots of twenty-five or fifty costing approximately $20 to $40 per package.

a) Mettag Casualty Triage Tags

b) EMS Disaster Triage Tags

c) ICS Triage Tags

Figure 7 Examples of various manufacturers of triage tags

Keeping in mind each section's responsibilities, it is important to develop an understanding of the terminology used; common terminology is essential in any cooperative or teamwork environment. The IC should identify the incident/event in a simple straightforward manner. As an example, the World Trade Center attack has been referred to as the Twin Towers or World Trade Center incident. Either method is simple and easy to understand. An IC might identify a wildfire in Montana occurring during the summer of 1999 as "Montana summer 99 wildfire incident". All communications should be in simple text and *without* the use of agency-specific codes like the "ten" code system (e.g. 10-45 for motor vehicle collision with injuries).

Integrated communications is simply a communications system that uses common frequencies, common terminology and short simple, to-the-point messages. It may be necessary to establish a number of communications networks depending upon the magnitude of the incident and the diversity of responding agencies. Radio and telephone traffic should be limited to essential information only.

Unity of command is a standard military management concept: each person within the organization reports to only one designated person. This system works well when dealing with only one agency but problems develop when multiple agencies and multiple jurisdictions are added to the mix.

For multiple agencies and multiple jurisdictions, *unified command* allows all of the responding agencies to manage the incident through the establishment of a common set of objectives, and strategies meeting those objectives. By using the unified command system there is no relinquishing of agency authority, responsibility, or accountability. Under unified command the incident functions under a single coordinated IAP, the operations section chief implements the IAP, and only one incident command post (ICP) is established.

Manageable span of control is the number of resources one supervisor can effectively manage. Within the ICS, the maximum number of resources any one supervisor can effectively manage is seven, while the minimum is three, with five resources considered optimum. As the resources increase or decrease, the IC will re-evaluate the organizational structure and make adjustments as necessary.

Designated facilities are fixed locations for areas such as the ICP and staging areas. The ICP will be a location where the IC, the command staff, and the general staff conduct their operations. Staging areas will be areas where resources are located while they await assignment or where they return after completion of their assignment.

Each incident will be unique. However, through application of ICS organization you can set up command, control, and coordination quickly and

easily if you are the first responder or most experienced individual to arrive at the incident. If placed within an area of the organization structure as a responder, it will be simple to understand your specific role within the chain of command.

Upon being tasked to assist at an incident, you should request upon arrival to speak with the liaison officer who will send you and any equipment or supplies to a staging area, or will assign you to an area of assignment. At the area of assignment, locate your immediate supervisor to get briefed on the critical areas that you need information on so you can maximize your effectiveness. Examples of information you will require include:

- The current situation
- Specific responsibilities
- Do I have subordinates that I will be responsible for?
- Coworkers
- Location of work
- What available equipment/resources are available to me?
- How do I request assistance?
- Where do I go when finished? On break? To eat? Etc?

Once you begin your assigned duties, maintain and update records documenting your activities. The records you keep will be an important reference tool when others are briefed and will assist efforts to better prepare for future incidents. Your supervisor should be provided regular feedback as to your situation's progress, or lack of, so this information can be conveyed back to the ICP.

Upon demobilization, you may be required to attend a special incident debrief session. If required, do so. Prior to leaving your area of responsibility, complete any work that is in progress unless otherwise directed, ensure your records are complete and accurate, brief your relief or supervisor, brief your subordinates (if appropriate), return or transfer custody of resources that you have, and follow any other departure procedures that are in place.

Duplication of effort, critical tasks not performed, or a combination of these two are potential outcomes when a number of services respond to an incident with best intentions but without a common method of coordinating a response. The ICS has been used for many years, is common to a number of agencies, and is flexible enough to handle any situation with as many, or as few responders as are available. It has a proven track record in responding to Hazmat incidents, planned events/celebrations, natural disasters, multi-agency incidents, and search and rescue incidents. Military personnel, to be effective in disaster response, should understand the structure and responsibilities of the ICS as a force multiplier, and where they fit into the system.

Christopher Trumble has a Mechanical Engineering degree and was a firearms expert at the Centre of Forensic Science (CFS) in Toronto, Canada. Responsibilities included providing expertise in weapons, armor, and forensics to the law enforcement community, Canadian military, the medical community, and the courts. He immigrated to the United States seven years ago to provide expertise to US law enforcement, military and government agencies. Mr Trumble has previously authored articles for the Association of Firearms and Toolmark Examiners (AFTE) Journal and Small Arms Review (SAR) Journal and has assisted the Federal Bureau of Investigation (FBI), Bureau of Alcohol Tobacco and Firearms (BATF), Drug Enforcement Agency (DEA), state, county and municipal law enforcement agencies, and testified as an expert witness in criminal court cases. He has also worked on military projects with the US Naval Space Warfare Center (SPAWAR), United States Special Operations Command (USSOCOM), and is currently under contract with the United States Army Aeromedical Research Laboratory (USAARL).

Mr Trumble's mass casualty incident experience includes responding to multiple shooting and civil unrest incidents in the United States and Canada. He has completed numerous weapons, emergency response, and counter-terrorism related courses provided by the Federal Emergency Management Agency (FEMA), military, and numerous law enforcement agencies.

REFERENCES

1. Evers, D., Miller M., Glover T. 2003: Pocket Partner. Third Edition. Sequoia Publishing.
2. Federal Emergency Management Agency Manual: ICS Incident Command System. Jan 1998.
3. Maniscalco P. M., Christen H.T. 2002: Understanding Terrorism and Managing the Consequences. Prentice Hall.

FOR FURTHER INFORMATION

Alliance Medical
POB 147
Russellville, MO 65074
www.allmed.net/catalog/index.php
Boundtree Medical
6106 Bausch Road
Galloway, OH 43119
Toll free: 800-533-0523
Fax: 800-257-5713
www.boundtree.com/home/asp

Federal Emergency Management Agency (FEMA)
500 C Street
SW Washington, DC 20472
Phone: 202-566-1600
www.fema.gov

METTAG Products, Inc.
POB 910
118 Court Street
Starke, Florida 32091
Toll free: 800-425-5397 Phone: 904-964-5397
FAX 904-964-9641
Email: sales@mettag.com
www.mettag.com

U.S. Fire Administration
16825 S. Seton Ave
Emmitsburg, MD 21727
Phone: 301-447-1000
Fax: 301-447-1052
www.usfa.fema.gov

National Fire Protection Association (NFPA)
1 Batterymarch Park
POB 9101
Quincy, MA 02269-9101
Phone: 617-770-3000
Fax: 617-770-0700
www.nfpa.org

Mars and Hippocrates in Megapolis: Urban Combat and Medical Support

Lester W. Grau
Charles J. Gbur Jr., MD

ABSTRACT

Medical support to soldiers and marines fighting in cities will pose some special tactical problems. Although the physician will still remove shrapnel and bullets or treat burns, breaks, and disease, urban terrain and urban combat provide unique challenges to the medical team. Special challenges include finding and evacuating the wounded, the types of injuries encountered, preventive medicine, medical intelligence, and protection of medical facilities and patients. Armored ambulances, improved self-administered first aid equipment, and early use of antibiotics will help, but urban combat can severely stress the availability of care and the established medical structure.

The views expressed in this article are those of the authors and do not reflect the official policy or position of the US Army, US Marine Corps, Department of Defense, or the US Government.

"Don't go there" is the conventional wisdom for military forces and cities. However, with the advent of high-precision weapons, many of the world's forces can no longer maneuver freely on open terrain and have been forced to move to difficult terrain to negate the effectiveness of high-precision weaponry and to regain maneuver. Forests, jungles, mountains, swamps, and cities are increasingly the terrain of choice for less-technologically equipped forces. The United States Armed Forces may have to fight guerrillas or conventional forces in cities. Military medical support will share the burden of this tough fight.

Is there a unique role that military medicine will play in support of urban combat? The physician will still remove bullets and shrapnel or treat burns and disease. However, the nature of a large city will have a decided impact on the mission of military medicine. Much of the urban population cannot abandon the city when adversaries arrive. There simply is no place for all of them to go. Where would the populace of New York or Los Angeles go? There are even fewer options when dealing with the evacuation of the civilian populace of Mexico City, Lagos, Cairo, or Rawalpindi. Most civilians will stay in place, try to protect their property, and try to avoid the fighting. They won't be able to stay out of harm's way. The bulk of casualties in city fighting are usually civilians. Sewage systems, power generating plants, water treatment plants, and other utilities are vulnerable and, when knocked out, increase the risk of disease and epidemics. A breakdown in public safety, city services, and public health can lead to looting, further disease, riots, unchecked conflagrations, and untreated casualties. Any fighting will interrupt normal commerce and severe interruptions can stop the delivery of medicine, food, and fuel. The populace will look to government and local authority to restore power, sewage, good order, public health, transport, and essential commerce. Often government and local authority is represented solely by the military and the senior military commander will find that his responsibilities extend far beyond immediate combat. Military engineers, communicators, police, transporters, lawyers, civil affairs, and medical personnel may find themselves doing non-traditional, yet vital tasks, to support the senior commander in the struggle for the city.

On the operational side, military medical personnel may find themselves reestablishing city public health systems, operating clinics for civilians, training public health workers, conducting or supervising epidemiologic teams, checking water and food, restocking local hospitals, and working with non-government relief and charitable organizations (NGOs) and other

aid organizations while continuing their primary mission of supporting the military. Clearly, the medical effort will require additional resources to handle an expanded mission and provide aid to the civilian community.

Medical support to the combatants will also pose some special tactical problems, particularly with finding the wounded, evacuating the patient, types of injuries encountered, preventive medicine, medical intelligence, and protection of medical facilities and patients.

FINDING THE WOUNDED

Many cities of the world are not laid out neatly in uniform rectangular blocks. Their streets twist and turn and they are easy to get lost in. Fighting further complicates "staying found." Units fragment during urban combat. A battalion may start its advance at one end of a block, clearing rooms and occupying buildings to prevent the enemy from retaking them. By the end of the block, the battalion is spread out and its combat power dissipated. Even platoon leaders have trouble maintaining control as their squads move into buildings--out of sight and often out of radio and voice contact. Urban combat is truly a squad leader's fight and even the squad gets split up. Inevitably, soldiers are moving in pairs or alone. If the command has failed to establish frequent rally points and brief the plan in detail to each soldier, it is easy to get turned around and lost. Eventually, a soldier goes missing and his comrades try to determine when and where they saw him last. Does the platoon stop and retrace its steps looking for him or does it continue on with the mission? If the platoon goes on, the platoon medic is in a quandary. Does he go back and look for the missing man or does he stay with the platoon?[1]

Clearly, well before the platoon moves into the city, every member needs to be trained to administer first aid to himself and to carry sufficient medical supplies to take care of himself. Soldiers are primarily trained to give first aid to others, so the act of self-administered first aid can be daunting to someone who is bleeding badly and slipping into shock. Training helps, but self-administered first aid is still tough to do. Perhaps science can help in this area. The Defense Advanced Research Products Agency (DARPA) is considering the development of an electronically-controlled medical body suit which can actively assist in keeping the wounded soldier alive. Conceivably, such a suit could provide pressure on dressings where needed, create a tourniquet for an injured limb, stiffen and tighten around a limb to provide a temporary splint, treat the wearer for shock, monitor life signs, and administer sedatives, nutrients, and painkillers. Development and fielding such a suit will take time. Something that is needed now that can be fielded more quickly is a tourniquet that can be put on with one hand.[2] Extremity injuries are common in urban combat and the possibility of bleeding to death is elevated.[3]

Should the wounded soldier administer first aid to himself, how do the medic and the platoon find their missing member?[1] Finding an unconscious soldier in a city can be difficult, particularly if there has been a fight producing rubble, falling walls, and blocked entrances. Fighting can also change the terrain a unit has passed over, making it hard to find familiar landmarks and to recognize sites. Personal Global Positioning System (GPS) transponders are one possible answer, but cities are notorious for electronic dead space. Further, the enemy can read the electronic map of personnel locations as readily as the friendly force and this would provide a great source of intelligence to the enemy. If the transponder is only activated when the soldier is wounded, the wounded soldier has to be able to turn it on before losing consciousness. And, of course, the enemy would love to get a transponder off of a dead soldier to use in baiting an ambush. Whistles and infrared strobe lights have the same drawbacks.

EVACUATION

Once the wounded soldier is located, the next problem is evacuation. How does a platoon move an injured comrade from the 12th floor of a rubble-strewn building or from out of a collapsed storm sewer to a patient collecting point? Sledgehammers, axes, crowbars, ropes, harnesses, pulleys, jacks, pry bars, ladders, and carbide-tipped chain saws may be necessary to extract the wounded. Who maintains and carries this equipment? How does the medic ensure that the wounded soldier survives the initial evacuation efforts? Most likely the medic is on foot. Does he lug a stretcher along or rely on an improvised poncho litter? Who carries the stretcher? The platoon has a full-time fight on its hands and the litter team should probably include a security element. Six people are usually essential for carrying a litter over a long distance. Pulling a litter team and security element out of a platoon seriously degrades its combat strength. Therefore, prior to the

action, the battalion medical element should be augmented with litter and security teams. Who provides this augmentation and who trains the augmentees?

Medical evacuation helicopters may be unable to fly into the city. During the 1994-1995 Battle for Grozny, the Chechens shot down several Russian medical evacuation helicopters, forcing the Russians to resort to ground evacuation within the confines of the city. Ground evacuation from the patient collection points was by field ambulance. The Chechens also shot up numerous soft-sided ambulances, forcing the Russians to use BTR-80 wheeled armored personnel carriers to evacuate the wounded.[4] The BTR-80 is a poor ambulance. Entry is by small side doors and there is no way to carry a litter patient. What the Russians clearly needed was an armored ambulance. The venerable US Army M113 personnel carrier makes a better ambulance, but its tracks tear up communications wire laid on the ground--the primary way of effectively communicating in a city. Analysis of US fighting in Mogadishu suggests that the armored ambulance must offer protection from small-arms fire, be hardened against RPG fire, be able to move through or over roadblocks, and be armed to protect the patients and medics.[5]

Urban combat forces a step back in time when dealing with medical evacuation. Litter evacuation will be common. Air evacuation will wait until the patient is moved to a safe location, probably out of the city. Communication will be difficult due to the incompatibility of tactical radios and high rise buildings. Urban combat lengthens the time between injury and surgical treatment. Most of the US casualties in Mogadishu took up to 15 hours to evacuate to surgical treatment.[5] The perennial problem of stabilizing the patient is compounded by the fact that evacuation now takes longer and the patient needs to be stabilized longer. Shock and loss of blood will significantly complicate the treatment of wounded waiting evacuation. Further, the delay to surgery will increase the amount of subsequent infections and increase the need for the early administration of antibiotics.[5]

TYPE OF INJURIES

Urban combat produces a higher percentage of burns and shrapnel wounds as well as crushing injuries from falling walls. Many patients will be dehydrated. Psychiatric casualties may be much higher than normal. With the advent of effective body armor, wounds to the torso have fallen off while wounds to the unprotected portion of the head and to the extremities have increased. Russian casualties during the first Chechen War of the last century (December 1994-October 1996) may be instructional. Although the Russian figures are not split out between urban and mountain combat, a great deal of the war was fought in the cities of Grozny, Shali, Gudermes, Vedeno, Urus-Martan, and Argun. Furthermore, 28.6% of the almost 14,000 Russian wounded and injured in the war occurred in the initial fighting in Grozny from 31 December 1994 to 20 January 1995.[6] Therefore, these figures can be used as a start point.

The physicians had to treat wounds, trauma, burns, and cold-weather injuries. Chart 1 shows the percentage of each treated and the loss rate among those treated.

Chart 1: Medically treated injuries during the first Chechen War and loss rate[7]

Type of Injury	Number	% of total	Died despite treatment	%
Wounds	8319	60.5	117	1.4
Blunt Trauma	4666	34.0	32	0.7
Burns	542	3.9	15	2.8
Cold Weather Injury	213	1.6	1	0.5
Total	13739	100	165	1.2

Wounded patients were the majority among the injured. Chart 2 clearly demonstrates the efficacy of body armor in protecting the torso.

Chart2: Location of Wounds and Percentages of Each Among Russian Military Wounded in Chechnya 1994-1996[7]

Wound Location	% of Total	Light wounds	Medium wounds	Severe wounds
Head	19.8	32.9	28.3	38.8
Neck	1.7	37.8	32.5	29.6
Spine	1.2	9.7	19.9	70.4
Chest	6.8	29.0	34.0	37.0
Abdomen	3.2	34.7	31.5	33.8
Arms	22.0	48.3	16.2	35.5
Legs	38.8	47.6	24.5	28.0
Total	100.00	42.0	29.9	31.1

Of the above wounds, 17% were multiple wounds and 12% were compound wounds. The Russians note that the main difference between their Afghanistan War statistics and these is that there was a higher incidence of bullet wounds to the head and neck during the urban combat phase of the war.[7] However, mortars remain a major, if not the chief, casualty producer during urban combat.

The Russians experienced delays and difficulties in treating and evacuating the wounded. Among the wounded who required surgical care, 64.1% received first aid within 35 minutes of being wounded while 18.2% of the wounded received first responder [medic] treatment within 55 minutes of being wounded. A doctor saw 56.2% of the wounded within two and a half hours.[6] Chart 3 shows the

percentage of doctor-initiated first aid procedures that were required and actually performed among 1030 wounded.

Chart 3: Physician First Aid Required and Given to Wounded[8]

Medical Procedure	Percentage requiring Physician First Aid Procedure	Percentage receiving Physician First Aid Procedure
Eliminate asphixia	1.7	0.8
Stop external bleeding	15.9	15.9
Use of a tourniquet	3.5	3.5
Administer IV fluids	50.5	35.3
Remove air from pleural cavity in a tension pneumothorax	1.0	0.5
Seal an open pneumothorax with an occlusive dressing	5.4	4.5
Administer novocaine blocks	35.7	15.9
Administer analgetics	100.0	80.3
Immobilize the patient for transport	46.7	33.2
Amputate an extremity which is hanging by a flap of skin	0.0	0.0
Restore extrusion	3.0	3.0
Administer antibiotics	99.9	72.2
Administer tetanic anatoxin	100.0	76.1
Administer oxygen	5.3	0.8

Russian field hospital surgical care to the wounded was divided into emergency surgery, urgent surgery, and deferred surgery. On average, emergency surgery was performed within an hour and 24 minutes of the patient's arrival at the hospital and 73.8% of the cases involved abdominal and chest wounds.[8] Chart 4 shows the types of emergency surgery as a percentage of all emergency surgery and the average time required to perform the surgery.

Chart 4: Types, frequency, and time required for Emergency Surgery[8]

Type of operation	Percentage of total	Surgical time
Tracheotomy to treat asphixia	0.7	30 minutes
Trepanation of the skull in the presence of external bleeding	2.1	2 hours 18 minutes ± 24 minutes
Stop external hemorrhage by ligature	1.4	1 hour 36 minutes ± 36 minutes
Stop external hemorrhage without suturing vessels	3.8	1 hour 18 minutes ± 12 minutes
Stop external bleeding by suturing vessels	3.1	2 hours 24 minutes ± 24 minutes
Stop external bleeding by temporary prosthetization of a blood vessel	1.8	1 hour 54 minutes ± 24 minutes
Enucleation of the eyeball when there is uncontrolled bleeding	0.3	48 minutes
Thoracotomy due to a cardiac tamponade	0.3	1 hour 30 minutes
Thoracotomy due to uncontrolled pleural bleeding	3.4	3 hours 24 minutes ± 42 minutes
Thoracentesis for a tension pneumothorax	6.6	30 minutes ± 6 minutes
Suturing a chest wound during an open pneumothorax	9.3	48 minutes ± 6 minutes
Laparatomy while stopping an internal abdominal hemorrhage	54.1	4 hours 30 minutes ± 1 hour 54 minutes
Amputation of severed or destroyed extremities	13.1	1 hour 12 minutes ± 18 minutes
Total	100	3 hours, six minutes ± 1 hour six minutes

On average, urgent surgery was performed within one hour and 48 minutes of the arrival of the patient in the field hospital. The most common procedures were cranial trepanation to treat cerebral compression (20.8%), thoracentesis for a hemothorax (42.5%) and laparatomy while treating damaged genitalia (17%).[8] Chart 5 shows the types of Russian urgent surgery as a percentage of all urgent surgery and the average time required to perform the surgery.

Chart 5: Types, frequency, and time required for urgent surgery[8]

Type of intervention	Percentage of total	Surgical time
Cranial trepanation to treat cerebral compression	20.8	2 hours six minutes ± six minutes
Initial surgery and immobilizing broken jaw bone	0.9	One hour
Initial surgery for a penetrating wound to the nasal sinuses	0.9	One hour
Thoracentesis for a hemothorax	42.3	36 minutes ± 6 minutes
Laparatomy while treating damaged hollow organs (intestines, bladder)	17.0	2 hours 18 minutes ± 6 minutes
Surgery for extraperitoneal injury to the rectum	3.3	2 hours 12 minutes ± 24 minutes
Surgery for extraperitoneal injury to the bladder	2.4	3 hours ± 18 minutes
Surgery for injury to the urethra	0.5	2 hours
Final restoration of blood vessels during ischemia of the extremities	2.4	1 hour 48 minutes ± 18 minutes
Temporary prosthetization of blood vessels during ischemia of the extremities	2.4	2 hours ± 36 minutes
Amputation due to irreversible ischemia	3.8	1 hour 30 minutes ± 12 minutes
Initial surgical treatment of extensive and dirty wounds	3.3	1 hour 48 minutes ± 18 minutes
Total	100	1 hour 24 minutes ± 6 minutes

On average, deferred surgery was performed within three hours and 18 minutes of the arrival of the patient in the field hospital. The most common procedures were initial surgery for soft tissue wounds (41.3%) and surgery to repair gunshot wounds to the long tubular bones.[8] Chart 6 (next page) shows the types of Russian deferred surgery as a percentage of all deferred surgery and the average time required to perform the surgery.

These statistics from Russian fighting in Chechnya suggests several conclusions for types of injuries that should be expected in urban combat. Body armor markedly decreases the incidence of wounds to the torso and abdomen, however the face and extremities are still vulnerable to bullets and shrapnel. The incidence of blunt trauma from blast, falling walls, and accidents is high in urban combat.

There is a new type of blunt trauma that has entered the urban arena. In the Second Chechen War, the Russians introduced the use of quantities of fuel-air or thermobaric weapons during the fight for Grozny from December 1999 to March 2000. Fuel-air weapons work by initially detonating a scattering charge within a warhead. The warhead contents (volatile gases, liquids or finely powdered explosives) form an aerosol cloud. This cloud is then ignited and the subsequent fireball sears the surrounding area while consuming the oxygen. The lack of oxygen creates an enormous overpressure which is the primary casualty-producing force. Within several dozen microseconds, the pres-

Chart 6: Types, frequency, and time required for deferred surgery[8]

Type of operation	Percentage of total	Surgical time
Initial surgical repair of skull and brain injuries	6.5	1 hour 24 minutes ± 12 minutes
Initial surgical repair of facial and jaw wounds	1.8	54 minutes ± 12 minutes
Eye surgery	1.3	1 hour 12 minutes ± 18 minutes
Decompression laminectomy to treat spinal compression	0.3	3 hours 30 minutes
Initial surgery for soft tissue wounds	41.4	1 hour 12 minutes ± 18 minutes
Initial surgery to repair bone injuries without fixation of fragments	41.4	1 hours 12 minutes ± 12 minutes
Initial surgery for bone injuries including fixation of fragments	7.3	1 hour 24 minutes ± 12 minutes
Total	100	54 minutes ± 6 minutes

sure at the center of the explosion can reach 427 pounds per square inch (normal atmospheric pressure at sea level is 14.7 pounds per square inch). This is 1.5 to 2 times great than the overpressure caused by conventional explosives. Personnel under the cloud are crushed to death.[9]

There is little written about the results of the Russian fuel-air weapons used against the Chechens. However, the results are fairly evident. Personnel caught under the blast die immediately from flame and overpressure. Personnel on the periphery of the blast are subject to burns, broken bones, contusions from flying debris, and blindness. Air embolism within blood vessels, concussions, multiple internal hemorrhages in the liver and spleen, collapsed lungs, ruptured eardrums, and eyes displaced from their sockets are also likely. Peritonitis can result from displacement and tearing of the internal organs. While military medics are well trained in treating casualties with external injuries (stop the bleeding, protect the wound, treat for shock), the internal injuries caused by fuel-air weapons may go unnoticed. Corpsmen should train to check for fluid or blood behind the eardrums as an indicator of pulmonary complications from blast injuries.[9] Air evacuation of fuel-air casualties is problematic without absolute cabin pressurization.

Preventive Medicine

Disease was also a major problem for the Russians engaged in urban combat. The difficulty in maintaining proper field sanitation in urban combat meant that 95% of infectious disease among Russian combatants was passed through oral-fecal transmission. Over half of the intestinally-related infections (53.2%) were from viral hepatitis, while 27.7% were from shigellosis and 20.1% were from enterocolitis. Diptheria, cholera, malignant anthrax, and plague also found victims among the Russian soldiers. Dirty water was the main culprit in the transmission of hepatitis. Medical records of one Russian brigade show that 15% of the brigade was down with hepatitis at one time.[10]

The Russian army is not the only army with a disease problem. In Vietnam, over two-thirds of US Army hospital admissions were for disease. In 1968, disease cost US forces some 943,809 mandays--roughly the equivalent of an infantry division for two months.[11] Urban combat will provide unique challenges for epidemiologic control. Unburied bodies, broken sewers, polluted water supplies, local foodstuffs, exotic beverages, rats, insects, and feral animals all represent threats to the health of the force.

Medical Intelligence

Urban medical intelligence starts well before the force enters the city. A good epidemiologic profile will prompt precautions and preventive measures. A good medical survey will pinpoint existing hospitals, clinics, sanitariums, blood banks, pharmaceutical industries, medical supply warehouses, and public health facilities and identify key indigenous medical personnel. Modern mapping programs will allow medical intelligence personnel to post these facilities and other pertinent data--such as the location of contagious disease outbreaks, high-speed routes to medical facilities, and underground locations suitable for setting up a field hospital–on electronic and printed maps.

Intelligence on enemy medical status is also valuable. Not only does it disclose enemy strengths and weaknesses, but it can also alert friendly medical units as to what diseases and conditions enemy prisoners of war might require treatment for. Part of medical intelligence can be determined before entry into the city, but most of it will be developed once the force is committed. Medical personnel are a prime source of intelligence provided that they are trained on how to observe and report pertinent data. Types and frequency of wounds and disease, attitudes of enemy prisoners undergoing treatment, type and utility of captured enemy medical supplies, and observations of the local populace are all important sources of intelligence that medical personnel should provide.[1]

Protection of Medical Facilities and Patients

Medical facilities must be protected. Frequently, their best location is outside the city near major roads and an airfield or port. However, medical facilities will often be located inside the contested city as well. Obviously, the best place to establish a medical facility is often inside an established hos-

pital or clinic. However, civilian medical facilities are often over-crowded in peacetime. Fighting will make them more so. Space and security concerns will usually dictate that military and civilian medical facilities are in separate locations. Protection of patients is a primary military concern, so sturdy buildings with clean basements are often prime locations. However, if chemical weapons are used, many chemical agents tend to hug low places. The medical facility should be secure from ground attack as well as mortar and artillery attack. The top floor of most buildings are vulnerable to artillery and mortar fire, so the medical facilities should occupy the lower floors and basement. Enemy prisoners of war will often be treated in the same facility as friendly troops, so establishment of secure prison wards will be an immediate concern.

Protection of patients extends beyond the medical facility. Patient protection extends from the initial litter evacuation to flying a patient to a permanent medical facility. Litter protection parties, armored ambulances, well-patrolled evacuation routes, and secure helipads all contribute.

STREET SMARTS

Armies avoid cities for a good reason. Cities are difficult to fight in and take an inordinate amount of troops. However, the reluctance of an army to fight in a city is an incentive for an enemy to use it as a refuge. Sometimes urban combat cannot be avoided. Urban combat places extra demands on military medicine. Military medical personnel may find themselves fully involved in supporting the civilian community as well as their own military and enemy prisoners of war.

Six tactical medical concerns during urban combat are finding the wounded, evacuating the wounded, preparing to treat the most-likely injuries associated with urban combat, preventing disease, conducting medical intelligence, and protecting medical facilities and patients. Each presents its own peculiar challenges.

A separate issue is providing medical care within a coalition. The US force may be fighting alongside allies and have to provide medical care for allied personnel. Differences in culture, diet, and accepted medical procedures may present difficulties to U.S. medical personnel. Often, medical personnel may have to conduct medical work-ups and diagnoses or coordinate large-scale medical support using an interpreter who has a limited medical vocabulary in either language.

Urban combat in difficult-and so is medical support to that combat. However, with training, preparation and foresight, both can be managed.

Lester W. Grau is a Military Analyst for the Foreign Military Studies Office at Fort Leavenworth, Kansas. He is a graduate of the US Army Defense Language Institute (Russian) and the US Army's Institute for Advanced Russian and Eastern European Studies. He retired from the US Army in 1992 at the grade of Lieutenant Colonel. His Baccalaureate and Masters degrees are in International Relations. He served a combat tour in Vietnam, four European tours, a Korean tour and a posting in Moscow. He has traveled to the Soviet Union and Russia over forty times. He has also been a frequent visitor to the Asian subcontinent. Les has published over ninety articles and studies on Soviet and Russian tactical, operational and geopolitical subjects. His book, The Bear Went Over the Mountain: Soviet Combat Tactics in Afghanistan was published in 1996. The Other Side of the Mountain: Mujahideen Tactics in the Soviet-Afghan War , co-authored with Ali Jalali, was published in 1998. The Soviet-Afghan War: How a Superpower Fought and Lost was published in 2001. He is currently working on a book about the recent wars in Chechnya and a book on Operation Anaconda.

REFERENCES:

1. Waters, Henry J.: Medical Implications of Combat in Cities, Student Research Report for the US Army Command and General Staff College, April 1974; 5.
2. Conversations with Dr. Jacob Kipp, Foreign Military Studies Office.
3. Leitch R.: The Three Block War: Urban Combat, *US Medicine Information Central*, February 2001.
4. Savvin Y., Za zhizni voinov: For the lives of the warriors, Armeyskiy sbornik *Army Digest*, March 1995; 45.
5. Butler, F.K., Hagmann, J.H., Richards, D.T.: Tactical Management of Urban Warfare Casualties in Special Operations, *Supplement to Military Medicine* 2000;165; 4.
6. Efimenko, N.A., Gumanenko, E.K., Samovalov, I.M., Trusov, A.A.: Khirurgicheskaya pomoshch' ranenym v vooruzhennom konflikte: Organizatsiya i soderzhanie pervoy, dovrachebnoy i pervoy vrachebnoy pomoshchi (Soobshchenie pervoye. Surgical care of casualties in an armed conflict: Structure and stages (Initial report), *Voyenno-meditsinskiy zhurnal* (Military medical journal) 1999.
7. Bryusov, P.G., Khrupkin, V.I., Opyt organizatsii khirurgicheskoy pomoshchi v period boevykh deystviy v Chechenskoy respublike. Experience in organizing surgical support during the combat in the Chechen republic. *Voenno-meditsinskiy zhurnal* [Military medical journal] 1997.
8. Efimenko, N.A., Gumanenko, E.K., Samovalov, I.M., Trusov, A.A.: Khirurgicheskaya pomoshch' ranenym v vooruzhennom konflikte: Organizatsiya i soderzhanie pervoy, dovrachebnoy i pervoy vrachebnoy pomoshchi (Soobshchenie pervoye. Surgical care of casualties in an armed conflict: Structure and stages (Continuation), *Voenno-meditsinskiy zhurnal* (Military medical journal) September 1999:26-27.
9. Grau, L.W., Smith, T.: A 'Crushing' Victory: Fuel-Air Explosives and Grozny 2000. *Marine Corps Gazette*, August 2000.
10. Grau, L.W., Jorgensen, W.A., Viral Hepatitis and the Russian War in Chechnya. *Army Medical Department Journal* May/June 1997; 2-4.
11. Neel, S., Medical Support of the US Army-Vietnam 1965-1970. *US Army Historical Series*, Washington: USGPO 1972, 33 cited in Waters, 11.

BALANCE MAGIC-02: Prototype for 18D non-trauma medical sustainment training

Robert Harrington, DMD, MPH

ABSTRACT

With the recent requirement for 18Ds to become certified as EMT-Ps, almost all of their required continuing medical education is now trauma related. The practical problem with this is that reviews of recent deployments (Such as Afganistan) show 18Ds spending over 90% of their time working in the non-trauma medical specialties.

The medical staff of the 19th SFG(A) is aware of this imbalance and has used it's JCET program to Mongolia in FY 2001 and 2002 to implement a prototype for enhancing the 18Ds experience in such selected non-trauma medical specialties such as vet, dental and ob-gyn. This article provides an overview of our experiences with this program, including such aspects as costs and the exact types of medical training provided.

BACKGROUND

The history and scope of 18D medical training has been one of a gradual upgrading and professionalization of their medical skills. This evolution of their medical skill sets has evolved from the more basic course at Ft Sam Houston in the mid 60s to the present day program at SOMTC, with its more recent requirement for EMT-P certification. Accompanying this trend to upgrade the 18D's medical training has been a persistent debate as to the right mix of trauma vs. non-trauma medical skills required for these unique medics to do their jobs properly.

The recent requirement for EMT-P certification is a good example of the continual struggle to find this proper mix of training for 18Ds. This new requirement for trauma medicine training was an outgrowth of the USASOC Surgeon's need in the late 90s to attain a higher professional profile for the 18Ds in AMEDD facilities. EMT-P certification was a convenient way to illustrate to army hospital credentialing committees the enhanced skills possessed by the 18Ds. Prior to EMT-P certification, 18Ds were frequently classified with 91Bs (basic level army medics) by these same hospital credentialing committees and were severely restricted in the range of care they were able to perform. However, this new requirement has had an effect on the type of initial and continuing education training the 18Ds are provided.

THE PROBLEM

The medical command element of the 19th SFG(A), a National Guard SF unit based in Utah, was concerned about the proper mix of continuing medical education they were providing for their 18Ds. With the new requirements for EMT-P re-certification, almost all the required continuing medical education provided to its 18Ds was now trauma related. With the heavy involvement of the unit's various elements in overseas deployments in the last several years, a need was seen to provide a more balanced continuing medical education program. Through AARs and debriefs, it was noted that over 90% of the medical care provided by deployed 18Ds was of the non-trauma variety. This included non-trauma medicine such as sick call, dental, and some vet care--all elements taught at SOMTC but under-emphasized in the continuing medical education program for the 18Ds. With the flexibility provided by the USASOC Surgeon's revised requirements for non-trauma med-

icine continuing education, several options for training were explored.

A PROPOSAL

With support from the then 19th SFG(A) Commander COL Walker, and encouragement from CSM McCabe, the medical staff explored options for offering a short intense medical sustainment program OCONUS in non-trauma medicine for the 18Ds. After much work by the 19th SFG(A) LNO at SOCPAC, SFC Blanke, the unit obtained permission from SOCPAC to utilize a JCET to Mongolia in 2001 to provide this new program of training for the 18Ds. Training during this initial mission was partially curtailed because of its start date coinciding with Sept 11, 2001. This review of training was for our second JCET mission to Mongolia, in the summer of 2002. During this second mission, we were able to complete our full range of training.

THE PROGRAM

The training program was to emphasize 18Ds gaining experience in non-trauma medical skills that would be difficult to obtain CONUS. The composite training team for 2002 consisted of 7 18Ds, a dentist and an ob-gyn physician from the 19th, a veterinarian from the 20th Group, and an ER physician from SOMTC. The first requirement was that the training would be intense and productive. 18Ds arrived in country on a Sunday afternoon, started the next morning, and departed after 12 days. The second requirement would be that the training would be most productive with a low ratio of instructors to students. The ratio was one doctor to two or three 18Ds. Lastly, the medical instructors would be very experienced in their fields. The Ob-Gyn was board certified with over 20 years experience, the dentist had 22 years experience, and the veterinarian had over 15 years in private practice. The physician providing medical training to the Mongolians and giving lectures on medicine to our 18Ds was a mobilized IMA with over 20 years in the ER field, including six years as director of an ER program at a regional hospital, and was presently the training director for SOMTC.

After a review of available medical facilities in Ulaan Bataar, the capital of Mongolia, several of the most promising sites were chosen during the IPC (initial planning conference). Facilities chosen for training included Maternity Hospital #1, the largest maternity hospital in country and where over 5,000 live births occurred per year. Dental experience was obtained at the Oral and Maxillofacial Clinic at the National University Hospital where over 30,000 extractions per year were performed. Veterinary training was provided at the National Agricultural University's Vet School, the largest veterinary clinic in the country.

18Ds rotated between these three facilities every two days for eight days. Other requirements of a Joint Combined Exercise Program (JCET) require training and interaction with host nation military. This was accomplished by interaction during the medical training and also by the 18Ds giving multi-day CLS (Combat Lifesaver) courses to various Mongolian military units during the two-week stay.

THE RESULTS

From an administrative point of view, the most incredible result was that all this training was produced for about $5,800 (about $800 per medic). This was the total cost of all the medical supplies brought into the country for the training itself, over and above the normal costs of an overseas deployment. At first appearances, one would be tempted to call this a MEDCAP (Medical Civic Action Program) but it was not. The author's experience with MEDCAPs over the years (seven total) is that a two-week MEDCAP would be five to seven fold more expensive and only one to three percent of the huge number of patients seen would provide any teaching experience for the 18Ds. The author's experience with MEDCAPs is that they are good for building local goodwill but provide minimal medical experience for the 18Ds for the effort expended.

Ob-Gyn: Each 18D delivered approximately three babies each and assisted on at least one Cesarean surgery. Specific topics covered by each medic included female pelvic exams, various vaginal repair techniques, and treatment of common obstetrical emergencies. Of note was that of the 15 18Ds rotated through the first two years of this mission, only one had ever been involved in an actual delivery before and that was while on duty as a firefighter.

18D SSG Grandorff, with mom and the baby he delivered several hours before.

SFC Ken Stern with proud mom and the baby he delivered that morning.

Dental: Each 18D performed about 80 extractions. Since this was the main oral surgery referral clinic for the country, most of these extractions were fairly complicated. Goals of training in this rotation were diagnosis and treatment of common oral problems, proper techniques for local and regional

COL Anderson, SOMTC training director, donating his body to science...training and serving as teaching model for 18Ds to give dental anesthesia.

SFC Stern and SSG Bertelson performing dental extractions under watchful eyes of Teaching Hospital oral surgeons.

dental blocks, and proper techniques for simple and complicated extractions. Our main objective was to have the 18D comfortable in handling any basic dental problem for a team member or a member of the local population.

Vet: In many brutal third world situations, livestock wellbeing frequently determines the survival of the local family unit. In any UW mission today, any help the 18D can give to the local population regarding their livestock is invaluable in winning their hearts and minds. These factors influenced our decision to provide a meaningful vet experience. This training occurred under the direction of the vet school dean at the National Vet School. All 18D training was conducted under IACUC guidelines for the proper use of animals that was approved for the 19th Group by the USASOC Surgeon's office.

Goals of training included basic animal exploratory surgery with organ identification under

MAJ David Powell, 20th SFG(A) veterinarian demonstrating hoof trimming techniques.

direction of vet school staff and the use of various surgical knots in different situations. Physical examination and inspections of cattle and horses was performed with chemical and physical restraints demonstrated. Basic vet techniques were also done such as dental floating and hoof trimming and, a long lost SF skill, the proper loading and use of pack animals was practiced.

CONCLUSIONS

POSITIVE FEEDBACK

The participating 18Ds were very positive about the program and felt it was a productive use of their time. Most of the medics gained experience in areas they were taught in the Q course but have had little or no follow-up experience since. With most of the medics now deployed overseas in active combat zones, the Group will do some follow-up within the year and get feedback from these same 18Ds as to what modifications they would suggest for the program.

INEXPENSIVE

The approximately $800 cost per medic of the program is one of the great benefits of the program. By having the training located at host nation regional medical facilities, the training is more intense and focused. Local doctors have already screened all patients so time is not wasted in doing a preliminary diagnosis via interpreters.

VOLUNTARY

The medical section of the 19th is not suggesting that this training program become another permanent requirement for the already overstretched 18D force. In approximately six years, with a slight increase in training load, we would be able to rotate our entire 18D force through such a program. In both years, we were able to fill the training slots within a few days of putting out a manning order to the Battalions.

The training for the 18Ds fulfilled the METL requirements of 18Ds to perform periodic non-trauma sustainment training. EMT-P certification is a great aid in increasing the 18Ds trauma abilities, but the need for a flexible program to train 18Ds in non-trauma medical skills more likely to be needed on deployments is a must. The 19th medical staff feels this program can provide these needed skills in a low cost, time effective manner.

INNOVATIVE

The use of the JCET program to fund this program was perhaps the most innovative part of the whole operation. From an SF perspective, JCET programs are traditionally thought of as A teams going in country and performing METL tasks while interacting with the host nation military. Due to the unique nature of the 18Ds abilities, we were easily able to fulfill all the JCET requirements for this mission. The medical training occurred at government run hospitals and the 18Ds were also able to run an extensive CLS course for the Mongolian military while in country. The training for the 18Ds fulfilled the METL requirements of 18Ds to perform periodic non-trauma medical sustainment training.

PLANNERS TOOL

Bringing in an 18D medical training team with senior medical trainers would be a cost effective, low risk way of introducing our SF units into sensitive countries where we would quickly be able to build goodwill. This training program can also be a useful tool for SF planners. A nice, low profile way to make an initial approach to a new country would be via this program. Bringing in an 18D medical training team with senior medical trainers would be a low risk way of introducing our units into sensitive countries.

Major Robert Harrington DMD, MPH was the Joint Mission Commander for Balance Magic-02. Presently he is the Dental Officer for 19th SFG(A). He obtained his DMD from Tufts School of Dental Medicine and his MPH from Harvard School of Public Health. He can be reached at: RHARRIN256@AOL.COM.

All photos and captions compliments of Major Robert Harrington

MAJ Harrington with Teaching Hospital oral surgery staff after presentation of certificates of appreciation.

Mongolian oral surgeon treating facial trauma. Example of several trauma cases encountered by 18Ds in the oral surgical clinic.

MAJ Powell, 20th Group Veterinarian, demonstrating surgical procedures for SSG Toney and SFC Caldwell.

COL Anderson, MAJ Harrington and COL Ragchaa, commander of Mongol Peacekeeping Battalion. COL Anderson shows perks of rank by demonstrating optional Mongolian riding headgear.

CE/CME ARTICLE

Pharmaceutical Treatment of Allergic Rhinitis

Mike Montoya, RPh

ABSTRACT

There are several therapeutic options in selecting therapies for seasonal allergy symptoms. Each has its advantage and disadvantage based on cost, availability, individual response, and side effects. In addition to these variables, the Special Operation Forces (SOF) medic must consider their effects on training, safety, and mission performance. This article will discuss the mechanisms of allergic rhinitis and the pharmacology of its treatments. With this information, the SOF medic can select a drug therapy regimen for allergic rhinitis and optimize its therapeutic outcome.

OBJECTIVES

1. The SOF medic will describe current drug therapy strategies for the treatment of allergic rhinitis.
2. The SOF medic will be able to discuss the basic principles of the process causing allergic rhinitis and the pharmacology of its drug treatment.
3. The SOF medic will be able to chose a drug therapy for optimal patient and mission outcome.

Complete Test on Page 42--Answer sheet on Page 45
Completion of this article and test offers 1.0 CME and 1.2 CNE/CEH.

DISCLOSURE: The presenter has indicated that, within the past two years, he has had no significant financial relationship with a commercial entity whose products/services are related to the subject matter of the topic he will be addressing or a commercial supporter of this educational activity.

My target audience is the 18D/corpsman, rather than the MDs who are already well versed with this type of info. I can attest that our schoolhouse training schedules and large volumes of broad topics make it difficult for students to learn the solid foundations of these drug classes. By presenting an ongoing series of articles for the JSOM, I hope to shed some light for the "rucksack medics" and help build a stronger foundation for drug therapy.

Of the many medical conditions faced by Special Operation Forces (SOF) medics, allergic rhinitis or “hay fever” is a frequent and often troublesome complaint. Sneezing, sinus pressure, itching, and congestion in the eyes, nose, and throat can affect more than individual performance. Allergic rhinitis can impair an operator during all phases of a mission, affecting personal performance, and possibly adversely affecting mission outcome.

To treat this condition, medics and allergy sufferers usually turn to various medications available in prescription and over the counter (OTC) form, each with its own issues of cost, availability, drug interactions, and possible side effects. But like the allergy symptoms themselves, the selection of these agents has the potential to affect an operator’s performance.

The intent of this article is to introduce the SOF medic to current drug therapy strategies for the treatment of allergic rhinitis. It will discuss the basic principles of the process causing allergic rhinitis and the pharmacology of its drug treatment. With this information, the SOF medic will be able to select a drug therapy for optimal patient and mission outcome.

Allergic Rhinitis: The Basics

Allergic rhinitis is defined in Taber's Cyclopedic Medical Dictionary[1] as "a hypersensitivity reaction or allergic disease of the mucous membranes of the nose and upper airway passages, induced by external irritation." The external irritants are generally protein components of plant pollens, animal dander, dust mites, and molds. Allergic rhinitis can be triggered periodically during the blooming seasons of offending plants (this is referred to as "Hay Fever" or seasonal allergic rhinitis), or triggered by stimuli present throughout the year such as animal dander, dust mites, etc. (called perennial allergic rhinitis).

The underlying process for allergic rhinitis lies in the body's immune response. Predisposed persons can sensitize their immune systems to a particular allergen (i.e., any substance that causes manifestations of allergy symptoms)[1] or to any other foreign substance identified as "non-self" by the immune system. Once exposed to an allergen, the immune system forms specific protein "target identifiers" called immunoglobulins. In the case of allergic rhinitis, the immunoglobulin formed to an allergen is designated "immunoglobulin E" or IgE. Once formed for a particular antigen, this sensitized protein attaches itself to specialized immune cells called mast cells. Mast cells are found in tissues throughout the body and contain granules of histamine and other biochemically active compounds. The attached target identifier IgE also serves as a "firing device" for the mast cell. Upon exposure to the IgE's specific "target allergen," it "fires" the mast cell, releasing its histamine and biochemical contents into tissues and the circulation. The firing of the mast cell "Claymore" in the presence of its target allergen and the resulting release of its inflammatory contents creates a cascade of biochemical reactions intended to defend the body against foreign allergens.

The release of mast cell histamine and its other inflammatory compounds characterizes most allergic reactions, ranging from rhinitis to anaphylaxis. The main treatment strategies for allergic rhinitis are aimed at the control of 1) histamine release and 2) its effects upon histamine binding sites.

Histamine Release: How It Affects the Body

The agonist action (i.e., receptor binding and stimulation) of histamine to specialized histamine receptors in the vasculature, bronchi, stomach, and sensory nerve endings results in symptoms ranging from urticaria and congestion to bronchoconstriction, hypotension, and shock.

The histamine receptors affected in the immune reactions described are classified as histamine receptors H_1 and H_2. Upon binding to these receptors in the body, the recognizable symptoms of allergies ensue.

Effects of Histamine Receptor Site Binding[2]

H_1 receptor binding:

Exocrine	Increased nasal and bronchial mucous
Bronchial smooth muscle	Constriction of bronchioles
Intestinal smooth muscle	Constriction of smooth muscle resulting in cramps, diarrhea
Sensory nerve endings	Pruritus, pain

H_1 and H_2 receptor binding [2, 3]

Cardiovascular	H_1 and H_2: Capillary dilation resulting in skin flushing, lowered total peripheral resistance, and decreased systemic blood pressure *
	**dependent on intensity and duration of histamine exposure*
	H_1: Increased capillary permability, resulting in fluid leakage into extracellular spaces

H_2 receptors

Stomach	Stimulation of gastric acid secretion

Compounds that competitively antagonize histamine at the receptor site (i.e., displace histamine and "block" the receptor site) were developed in the 1950s. Diphenhydramine [Benadryl®] was the first commercially available antihistamine. Currently, over twenty prescription and OTC histamine antagonists are marketed in the United States for use in allergy treatment. All effectively antagonize H_1 histamine and markedly decrease symptoms mediated by histamine. Their main differences lie in their side effect profile, duration of action, and cost.

Compounds antagonizing histamine at the H_2 receptor, particularly in the stomach, were developed and marketed in the 1980s. These medications, known by their trade names Tagamet® (cimetidine), Pepcid® (famotidine), Axid® (nizatidine), and Zantac® (ranitidine) selectively antagonize H_2 receptors resulting in decreased stomach acid secretion. They are primarily used in the treatment of gastroesophageal reflux disease, gastric and peptic ulcer disease, and other conditions exacerbated by increased

stomach acid production.

Mechanism of Action

The overall response to histamine antagonism is dependent on several variables. Histamine antagonism before exposure to the offending allergen offers the highest level of symptom control for allergy conditions such as allergic rhinitis. Starting antihistamines after allergy symptoms develop usually requires several doses with the addition of another agent such as a decongestant to hasten symptom relief. Overwhelming releases of histamine with inflammatory mediators often require the addition of epinephrine and possibly systemic corticosteroids to reverse smooth muscle constriction of the airway and systemic vasodilation.

The following table lists commonly used antihistamines in the United States:

First-generation H_1 antagonists

Brompheniramine [a, c]	*Dimetapp®*
Carbinoxamine [a]	*Rondec®*
Chlorpheniramine [a, c]	*Chlor-Trimeton®*
Clemastine [a,c]	*Tavist®*
Cyproheptadine [d]	*Periactin®*
Diphenhydramine [c]	*Benadryl®, Sominex®*
Hydroxyzine hydrochloride [d]	*Atarax®*
Hydroxyzine pamoate [d]	*Vistaril®*
Promethazine [b]	*Phenergan®*
Triprolidine [a,c]	*Actifed®*

Second-generation H_1 antagonists

Acrivastine [a]	*Semprex-D®*
Azatadine	*Optimine®*
Cetirizine	*Zyrtec®, Zyrtec-D 12 hr®* [a]
Desloratadine [c]	*Clarinex®*
Fexofenadine [d,e]	*Allegra®, Allegra-D®* [a]
Loratadine [3,e]	*Claritin®, Claritin Reditabs®, Alavert®*

[a] *Combined with decongestant pseudoephedrine*

[b] *Antiemetic with histamine antagonist properties*

[c] *Available without prescription (OTC)*

[d] *Basic Core Formulary (BCF) agent*

[e] *Non-sedating antihistamine*

An antihistamine's competitive antagonism displaces and prevents access to binding receptors and blocks histamine-induced allergic symptoms. They do not prevent the release of histamine from cellular storage sites.

Although histamine antagonism will block histamine's role in bronchospasm and vasodilation in anaphylaxis, it must be stressed that other participating inflammatory mediators remain unaffected by histamine antagonism, requiring the further "physiologic antagonism" of epinephrine to bronchodilate and vasoconstrict.[2,4]

H_1 antagonism partially inhibits the vasodilator effects of histamine on capillary endothelium, but full histamine antagonism of vasodilator effects needs the addition of an H_2 antagonist.[2] H_1 antagonism also blocks the action of increased capillary permeability and wheal formation, decreasing symptoms of wheal formation and itch.[2]

Side Effects

The most frequent side effect of antihistamines is sedation. This side effect is common with first generation antihistamines, owing to their ability to cross the blood brain barrier. Diphenhydramine *(Benadryl®)*, Hydroxyzine *(Atarax®, Vistaril®)* and Triprolidine *(Actifed®)* are agents with marked potential for sedation. Altered psychomotor performance, even in the absence of sedation, has also been demonstrated with first generation agents.[5] Concurrent ingestion of other central nervous system (CNS) depressant drugs or alcohol will produce additional CNS and motor depressant effects. Promethazine *(Phenergan®)*, traditionally a phenothiazine antipsychotic agent used primarily as an antiemetic, also has H_1 blocking properties. Its use is limited as an antihistamine due to its $alpha_1$ antagonist properties causing lightheadedness and orthostatic hypotension.

In certain individuals, first generation agents at recommended doses can occasionally cause CNS excitation, resulting in restlessness, nervousness, and insomnia. It is important to note that CNS excitation from antihistamines is a striking feature in antihistamine overdose and can progress to seizures, especially in infants and children.

Second generation or "non-sedating" antihistamines do not readily cross the blood brain barrier and cause little if any sedation. When tested for effect on objective measurements such as sleep latency and standardized performance tests, they compared similar to placebos.[2] Loratadine and fexofenadine are "waiverable" in aircrew members from all three services.

Another common side effect of first generation agents is their ability to bind to muscarinic (acetylcholine) receptors. The extent of this anticholinergic effect varies with the agent and dose used and can result in decreased salivation, decreased sweating, decreased lacrimation, urinary hesitancy, constipation, decreased visual accommodation, and

Relative Comparison of Side Effects [3,4,6]

	Sedation	Anticholinergic effect
Carbinoxamine (*Rondec®)*	High	High
Diphenhydramine (*Benadryl®, Sominex®)*	High	High
Dimenhydrinate *(Dramamine®)*	High	High
Promethazine (*Phenergan®)*	High	High
Clemastine (*Tavist®)*	Moderate	High
Brompheniramine (*Dimetapp®)*	Low	Moderate
Chlorpheniramine (*Chlor-Trimeton®)*	Low	Moderate
Cyproheptadine (*Periactin®)*	Low	Moderate
Cetirizine (*Zyrtec®*)	Low to Moderate	Low to None
Desloratadine (*Clarinex®)*	Low to None	Low to None
Fexofenadine (*Allegra®)*	Low to None	Low to None
Loratadine *(Claritin®)*	Low to None	Low to None

increased heart rate. Even though anticholinergic effects are generally absent in newer second-generation agents, patients with glaucoma, cardiovascular disease, hyperthyroidism, and prostatic hypertrophy should avoid both classes of antihistamines unless prescribed and closely monitored by supervising physicians.

Second generation agents

Aside from their lack of sedative and anticholinergic side effects, second generation agents also differ by their longer duration of action. Cetirizin *(Zyrtec®),* desloratadine (*Clarinex®),* and recently switched to OTC status, loratadine (*Claritin®, Alavert®),* are dosed once daily; fexofenadine (*Allegra®)* is dosed once or twice daily, depending on the dosage form.

It is worth mentioning that in early 2003, the drug manufacturer Schering released Loratadine (*Claritin®, Claritin Reditabs®)* as the first non-sedating antihistamine available in the United States without a prescription. Its formulation and dosing are the same as its former prescription form. Its place in the prescription market has been replaced with desloratadine *(Clarinex®),* the active metabolite of loratadine. It possesses the same antihistamine activity and side effect profile of its predecessor.

Topical

Intranasal spray and ophthalmic suspension antihistamines are alternate routes for antihistamine delivery. Their advantage lies in their ability to promptly relieve localized allergy symptoms such as histamine induced itching and inflammation in the eyes and nasopharynx without exposing the patient to systemic side effects. They antagonize H_1 receptors and, with the exception of Azelastine (*Astelin® nasal spray),* lack the side effects caused by systemic antihistamines. Azelastine's prescribing information states approximately 40% of its intranasal dose can reach the systemic circulation. There are reports of some patients experiencing drowsiness during its clinical trials.[7]

Olopatadine ophthalmic suspension (*Patanol®)* is a unique agent that antagonizes H_1 receptors and inhibits release of histamine from mast cells in the conjunctival epithelium.[8] Olopatadine is reported to lack effects on alpha-adrenergic, dopamine, and muscarinic receptors.

The main side effect of these agents is localized irritation. Each topical agent is preserved with benzalkonium chloride, which can be irritating to certain individuals. Contact lens wearer should remove their contact lenses before using antihistamine eye drops.

Two mast cells stabilizers, cromolyn and lodoxamide, are available in ophthalmic preparations. These agents stabilize the mast cells in the eye and prevent or lessen histamine release upon exposure to allergens.

Topical Antihistamines

Azelastine	*Astelin® nasal spray*
Levocabastine	*Livostin® ophthalmic suspension*
Olopatadine	*Patanol® ophthalmic suspension*

Other Therapeutic Uses of H_1 Antihistamines

For the treatment of urticaria, the addition of an H_2 antagonist to H_1 specific antihistamines has been effective in some individuals when therapy with H_1 agents has proven ineffective or incomplete.[2] Antihistamine therapy for common cold symptoms is questionable. Symptoms of rhinorrhea are usually lessened by the anticholinergic antagonism caused by

first generation agents rather than any therapeutic benefit from the antihistamine.[2]

Certain members of the first generation antihistamines have been useful in the prophylaxis of motion sickness. Their anticholinergic properties bind to muscarinic receptors in the medullary-vomiting center, decreasing stimulation caused by motion related stimuli. Promethazine (Phenergan®) is effective for this indication but its sedative properties make it disadvantageous when alertness and motor skills are required. Antihistamines such as Dimenhydrinate (*Dramamine®)* and Meclizine (*Bonine®, Dramamine II®)* are available OTC and offer less sedation than promethazine. Antihistamines used to prevent motion sickness should be taken at least one hour prior to anticipated motion for full absorption and binding to muscarinic receptors.

Decongestants

Decongestants are sympathomimetic agents (i.e., they produce effects resembling stimulation of the sympathetic nervous system by endogenous neurotransmitters). When applied topically as a nasal spray or taken orally, they stimulate alpha$_1$ adrenergic receptors resulting in vasoconstriction and shrinking of nasal mucosa. Topical decongestants have the advantage of immediate relief of congestion; however neither oral or topical decongestants block the effects of histamine if used for allergy-induced symptoms.

Topical nasal decongestants have minimal systemic absorption when used as directed. Their main side effect is irritation and dryness to the nasal mucosa. When used on a consistent basis, nasal decongestants can cause rebound congestion or "rhinitis medicamentosa." This condition is characterized by larger doses and shortened duration of action. To avoid this condition, use longer acting topical decongestants, only use the recommended dose on package labeling and do not exceed daily use for more than 72 hours.

Common Topical Nasal Decongestants

Phenylephrine	*Neo-Synephrine®*
Oxymetazoline	*Afrin®*

Systemic, or oral decongestants lack topical agent's rebound congestion and irritant side effects. Their symptom relief is not as rapid as topical agents but is usually longer in duration. Since the Food and Drug Administration's (FDA) ordered removal of the decongestant phenylpropanolamine in 2000, the mainstay oral decongestant available in the United States is pseudoephedrine (*Sudafed®*).

Pseudoephedrine acts primarily on alpha$_1$ adrenergic receptors, causing vasoconstriction, and also acts to a small extent on beta-adrenergic receptors. Pseudoephedrine relieves nasal congestion, increases drainage of sinus secretions, and opens congested eustachian passages. In normotensive patients, pseudoephedrine produces minimal effect on blood pressure. The most common side effect is CNS stimulation, resulting in agitation and insomnia if taken before bedtime.[9] Exceeding recommended dosing, crushing extended release tablets, or ingesting caffeinated beverages or other sympathomimetics (especially those containing ephedra or ma huang) with pseudoephedrine can result in elevated blood pressure, tachycardia, and heart palpitations. Irritability of the myocardium and dysrhythmias can occur in persons who have heart disease or who are sensitive to the cardiac effects of sympathomimetics, making these persons poor candidates for systemic decongestants.[9] Persons receiving medications for hypertension should also avoid systemic decongestants unless supervised by their physicians. Monoamine oxidase inhibitor (MAOI) antidepressants combined with sympathomimetic decongestants will cause severe hypertensive crises and should always be avoided.

Nasal Steroids

Nasal corticosteroids are widely used in the treatment of allergic rhinitis. Rather than immediate symptom relief from vasoconstriction, they inhibit the biochemical process in the nasopharynx producing allergy symptoms. Through a series of mechanisms, topical corticosteroids in the nasal mucosa inhibit allergy-induced inflammation by inhibiting the release of histamine and other inflammatory mediators in addition to slowing the biochemical mechanisms required for immune mediated inflammation.

Side effects are minimal, with local irritation, epistaxis, and headache the most common. Persons with infections, recent wounds, or surgery to the nasopharynx should avoid nasal corticosteroids due to their effect on the slowing of wound and infection healing. Candida (yeast) infection of the nasopharynx is rare, but warrants periodic examination with continual use. Suppression of the hypothalamic-pituitary-adrenal (HPA) axis has not been demonstrated when these agents are used within rec-

ommended dose guidelines.[6]

Nasal steroids can be used as sole agents or in combination with antihistamines in the treatment of allergies. If allergy exposure can be anticipated, treatment should begin several days in advance to anticipated allergy seasons since optimal response takes one to three weeks. Generally if no response is observed after three weeks, a different therapy should be approached. To ensure optimal absorption and response, blocked nasal passages should be cleared with a decongestant or saline lavage before use.

Common Nasal Steroids

Beclomethasone	*Beconase®, Vancenase AQ®*
Budesonide	*Rhinocort®*
Flunisolide	*Nasalide®, Nasarel®*
Fluticasone*	*Flonase®*
Mometasone	*Nasonex®*
Triamcinolone	*Nasacort®*

** BCF agent*

(Keep in mind there are aerosol and aqueous nasal steroid preps. Most people use the AQ versions vice the aerosol forms since they are less drying and seem better tolerated)

Mast Cell Stabilizer

Lastly, cromolyn sodium (*Nasalcrom®*), is a mast cell stabilizer that prevents IgE mast cell histamine release in the nasal passage area. It is available OTC and has no decongestant, sedating, or anticholinergic side effects. Local irritation is the most common side effect. Like nasal steroids, peak effects could take several days to two weeks. Dosing several days prior to allergen exposure or combining therapy with antihistamines for the first few weeks of therapy will ensure optimal outcome. A disadvantage of Nasalcrom is its required four times a day dosing.

Therapy Selection

The desired outcome for treating seasonal allergies is the control of allergy symptoms without cognitive or functional impairment. To minimize side effects when treating allergic rhinitis and its symptoms, SOF medics must first rely on the time proven techniques of history and medical assessment. History of the patient's symptoms, review of systems, prior episodes and treatments, vital signs, and current medications, to include OTC treatments, will serve immeasurably in determining the true nature of the patient's complaint. It is essential to rule out such problems as sinus infections, nasal polyps, foreign bodies, viral and bacterial conjunctivitis, rebound congestion from prolonged nasal spray use, and viral infections.

Once the determination is made to treat allergic rhinitis, the training or operational environment must be considered. First generation antihistamines are effective and inexpensive, but they carry the risk of sedation and motor skill impairment. In an environment where these factors are crucial, a second-generation agent, nasal steroid, or cromolyn would be the better choice. First generation agents also have various degrees of anticholinergic effects, which could result in impaired sweating and possible heat injuries in hot environments. Male patients with prostatic hypertrophy or prostatitis could also experience increased urinary hesitancy with first generation agents. If these concerns were not an issue, first generation agents would be suitable.

Second generation agents offer little to no sedation or anticholinergic side effects and would be better suited in patients or environments where first generation side effects would be problematic. Additionally, nasal steroids, cromolyn, or topical antihistamines would make good choices either as sole therapy or as adjuncts to antihistamine therapy. Because of H_1 blocker Azelastine's *(Astelin® nasal spray)* systemic absorption, it is recommended not to combine it with an oral antihistamine regimen due to the possibility for increased antihistamine side effects and toxicity. Nasal decongestants can be added to these regimens until full antihistamine blocking and resolution of symptoms occur. Topical nasal decongestants can be used on an as needed basis (daily use not to exceed 72 hours), especially to open nasal passages for nasal steroids or cromolyn. Use of a BCF agent should ensure availability at all DoD MTFs worldwide.

Patients receiving hypertension medications should avoid decongestants. Always advise patients taking antihistamines to check labels of cold and sleep aids for antihistamine content to prevent excessive dosing and possible toxicity. Always check for drug interactions with any oral agent before starting therapy if currently receiving prescription meds. Beginning any treatment prior to exposure in allergen environments (several days for oral antihistamines, two to three weeks for nasal steroids or cromolyn) will optimize outcomes. If no resolution of symptoms occurs in two to three weeks, either change regimens or refer the patient to higher levels of care

Always refer individuals on diving or flight status to a flight surgeon, dive officer or dive medical technician before starting drug therapy for allergic rhinitis on these individuals.

Conclusion

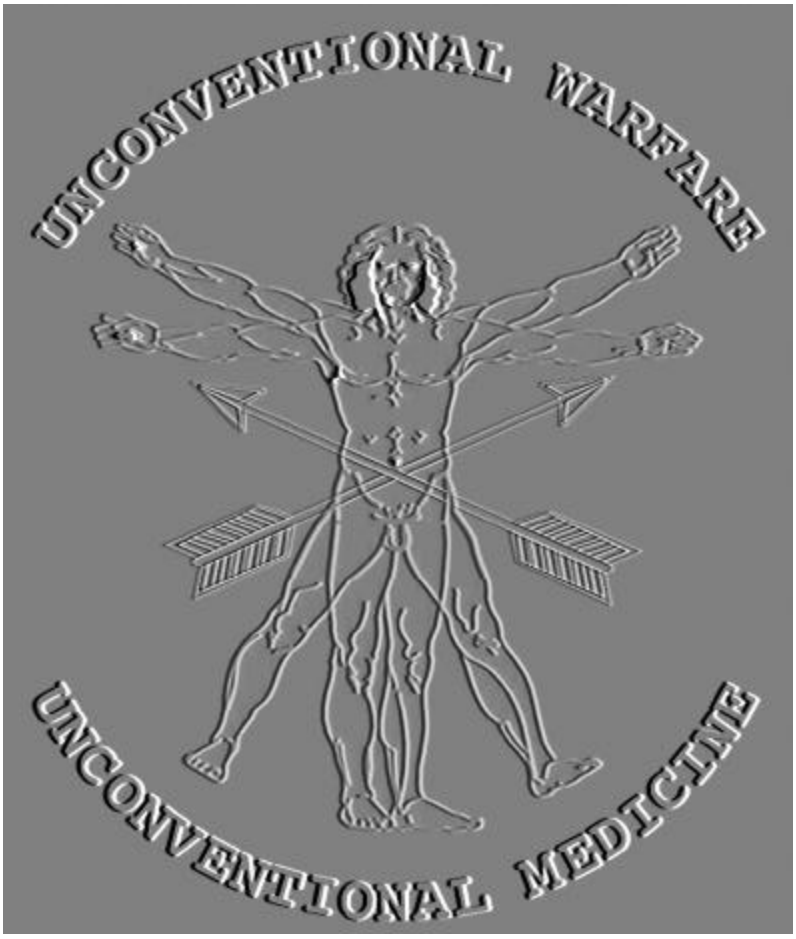
By understanding the basic principles of the allergic rhinitis and the pharmacology of its drug treatment, the SOF medic can select an appropriate drug therapy for symptom control based on patient assessment and operational constraints. Following these principles will ensure optimal outcome for the patient and the mission.

Primum non nocere!

SFC Mike Montoya is an 18D Special Operations Medic, currently assigned to the Joint Special Operations Medical Training Center in Fort Bragg, North Carolina. He is a 1995 graduate from the University Of Utah College Of Pharmacy, receiving a Bachelor of Science degree in pharmacy. Before activation to active duty in support of Operation Noble Eagle, SFC Montoya was assigned to the 19th Special Forces Group as a detachment medic. He was employed as a specialist in poison information at the Utah Poison Control Center in Salt Lake City, Utah.

References

1. Taber's Cyclopedic Medical Dictionary. Nineteenth edition, F.A. Davis Company. 2001
2. Hardman J., Limbird L. (eds). Goodman & Gilman's The Pharmacologic Basis of Therapeutics. Tenth edition. McGraw-Hill companies. 2001; 649-657
3. Mycek M., Harvey R., Champe P. Lippincott's Illustrated Reviews: Pharmacology. Second edition. Lippincott, Williams @ Wilkins 2000; 421
4. Katzung B. Basic and Clinical Pharmacology. Eighth edition. Lange Medical Books/McGraw Hill 2001; 269, 272
5. Newer Antihistamines. The Medical Letter On Drugs and Therapeutics. New Rochelle, N.Y. April 30, 2001; 43: Issue 1103
6. DiPiro, J.T., Talbert, R.L., Yee, G.C., Matzke, G., Wells, B.G., Posey, L.M. (eds). Pharmacotherapy: A Pathophysiological Approach. Sixth Edition. Appleton & Lange, Norwalk, CT. 2002, 1683-1685
7. MedPointe Inc. Astelin product labeling. Cranbury, NJ 08873
8. Alcon Pharmaceuticals. Patanol product labeling.Fort Worth, TX 76134
9. American Society of Health-System Pharmacists: AHFS Drug Information. Bethesda, Maryland; 2002:1305



CONTINUING MEDICAL EDUCATION TEST

Pharmaceutical Treatment of Allergic Rhinitis

JSOM

1. Sneezing, sinus pressure, itching, and congestion of the eyes, nose and throat
    a. is called allergic rhinitis.
    b. is called “hay fever”.
    c. can impair an individual’s performance during all phases of a mission and the mission outcome.
    d. all the above
    e. none of the above

2. The intent of this article was to introduce the SOF medic to:
    a. current drug therapy.
    b. discuss the basic principles of drug interactions and pharmacology side effects.
    c. strategies for the treatment of allergic rhinitis.
    d. a and c.
    e. a, b, and c.

3. Allergic rhinitis as quoted in this article (as defined in Taber’s) is
    a. a hyperreactivity or allergic reaction of the mucosal lining of the nose and upper airway passage, induced by internal or external irritation.
    b. a hypersensitivity reaction or allergic disease of the mucous membranes of the nose and upper airway passages, induced by external irritation.
    c. a hypersensitivity or allergic reaction of the mucosal lining of the nose and upper airway passage, causing inflammation and histamine release.
    d. none of the above

4. External irritants can be
    a. protein components of plant pollens, animal dander, dust mites, and molds.
    b. smoke and or other irritants .
    c. perfumes, detergents, soaps, petroleum products.
    d. a and c.
    e. all the above.

5. Which of the following responses is most accurate for describing allergic rhinitis?
    a. IgM.
    b. IgG.
    c. IgE.
    d. IgG (lymphocytic cell mediated response).
    e. None of the above.

6. The firing of _____ _____ can lead to a histamine release targeting allergens and resulting in a cascade of biochemical reactions.
    a. claymore cells.
    b. target identifiers.
    c. mass cells.
    d. mast cells.
    e. specific sensitized-protein.

7. Effects of H_1 histamine receptor site binding include:
    a. Exocrine (increased nasal and bronchial mucous).
    b. Endocrine (increased nasal and bronchial mucous).
    c. Bronchial smooth muscle (constriction of smooth muscle resulting in cramps and diarrhea).
    d. Intestinal smooth muscle (dilatation of smooth muscle resulting in cramps, diarrhea).
    e. Efferent motor nerve endings (resulting in pruritis and pain).

8. Effects of histamine (H_1 and H_2 receptor binding) on the cardiovascular include all of the following:
    -H_1 and H_2: Capillary dilation resulting in skin flushing, lowered total peripheral resistance, and decreased systemic pressure (dependent on intensity and duration of histamine exposure)
    -H_2: Increased capillary permeability, resulting in fluid leakage into extracellular spaces.

    True or False.

9. All the following are true except:
    a. There have been many compounds, developed since the 1950s; currently there are over twenty prescriptions that competitively antagonize histamine at the receptor site. Most effectively antagonize H_1 histamine and markedly decrease symptoms mediated by histamine release.
    b. The main differences of H_1 antihistamines lie in their side effect profile, duration of action, and cost.
    c. Compounds antagonizing histamine at the H_1 receptor (stomach) were developed mostly in the 1980s. These medications include Tagament (cimetidine), Pepcid (famotidine), Axid (nizatidine), and Zantac (rantidine).
    d. H_2 receptor antihistamines are primarily used in the treatment of gastroesophageal reflux disease and gastric and peptic ulcer disease.

10. All the following are true in respect to decongestants except:
    a. Decongestants are sympathomimetic agents.
    b. They produce effects resembling stimulation of the sympathetic nervous system.
    c. They stimulate alpha$_2$ adrenergic receptors resulting in vasoconstriction and shrinking of nasal mucosa.
    d. Topical decongestants have the advantage of immediate relief of congestion; however, neither block the effects of histamine if used for allergy caused symptoms.
    e. Topical nasal decongestants have minimal systemic absorption when used as directed.
    f. Their main side effect is irritation and dryness to the nasal mucosa.

11. Phenylephrine or Oxymetazoline can often cause a condition known as “rhinitis medicamentosa”. For this reason it is recommended that use of these medications not exceed more than 72 hours.

    True or False.

12. Pseudoephedrine use in hypertensive patients should be avoided due to possible exacerbation of hypertension (unless supervised by physician). MAOIs will cause hypertensive crises and are always contraindicated

    True or False.

13. All the following are true with nasal corticosteroids except:
    a. Nasal steroids are widely used in the treatment of allergic rhinitis.
    b. Symptomatic relief is secondary to vasoconstriction; they inhibit the biochemical process in the nasopharynx that produces allergy symptoms.
    c. Topical corticosteroids in the nasal mucosa inhibit allergy induced inflammation by inhibiting the release of histamine and other inflammatory mediators in addition to slowing the biochemical mechanism required for immune mediated inflammation.
    d. Side effects are minimal, with local irritation, epistaxis, and headache the most common.
    e. Nasal steroids can be used as a sole agent or in combination with antihistamines in the treatment of allergies.

14. In therapy selection, the desired outcome for treating seasonal allergies is the control of allergy symptoms without impairment of the patient due to side effects of the meds. To minimize side effects when treating allergic rhinitis and its symptoms, SOF medics must rely on:
    a. History and medical assessment, review of systems, and prior episodes and treatment.
    b. Vital signs
    c. Current medications
    d. Type of activity to be completed (Mission)
    e. All of the above

Continuing Education Evaluation Form
Journal of Special Operations Medicine, Volume 3, Edition 3 / Summer 03

Date of original release: 05 Sep 03
Expiration Date: 05 Sep 04
Certificates: Certificates will be mailed.
Physicians and Nurses: Read the article designated for continuing education credit. Complete the Continuing Education Evaluation Exam and Post-test, providing correct responses to at least 80% of the questions and evaluation. Fax or mail the Post-test and the Continuing Education Evaluation Form to:

USSOCOM-SG
Attn: Capt Debbie Parsons (Officer)
MSgt Robert McCumsey (Enlisted)
United States Special Operations Command
7701 Tampa Point Blvd.
MacDill AFB, FL 33621-5323
Phone # Comm: (813) 828-5442; DSN 299; Fax # -2568

Accreditation Statements

CME: This activity has been planned and implemented in accordance with the essential areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through joint sponsorship of USUHS and the Journal of Special Operations Medicine. USUHS is accredited by the ACCME to provide continuing medical education for physicians. USUHS designates **Pharmaceutical Treatment of Allergic Rhinitis** for a maximum of **1.0** hour of category 1 credit toward the American Medical Association Physician's Recognition Award. Each physician should claim only those hours of credit that he/she spent in the educational activity.

CNE/CEH: **Pharmaceutical Treatment of Allergic Rhinitis** for **1.2** contact hours is provided by the Uniformed Services University of the Health Sciences (USUHS), which is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

Name:_____Email Address: _____
Discipline: ___Physician ___PA ___Nurse ___other_____

Mailing Address:
_____
_____
_____

POST-TEST – Answer Sheet
Pharmaceutical Treatment of Allergic Rhinitis (SFC Michael J. Montoya) Page 35

Continuing Education Evaluation Form
Journal of Special Operations Medicine

1. a b c d e
2. a b c d e
3. a b c d
4. a b c d e
5. a b c d e
6. a b c d e
7. a b c d e
8. T or F
9. a b c d
10. a b c d e
11. T or F
12. T or F
13. a b c d e
14. a b c d e

Continuing Education Evaluation Form
Journal of Special Operations Medicine
Volume 3, Edition 3 / Summer 03
Date of Original Release 05 Sep 03

Pharmaceutical Treatment of Allergic Rhinitis Page 35

	Strongly Agree				Strongly Disagree
Educational Value:	5	4	3	2	1
I learned something new that is important.	_	_	_	_	_
I verified some important information.	_	_	_	_	_
I plan to discuss this information with colleagues.	_	_	_	_	_
Readability Feedback:					
I understood what the authors were trying to say.	_	_	_	_	_
Overall, the presentation of the article enhanced.	_	_	_	_	_
My ability to read and understand it.	_	_	_	_	_

Were the educational objectives of the article(s) met? YES____NO____
If no, please explain:
_____
_____

Do you think that the article(s) unduly emphasized one company's products? YES___ NO ___
Comments:
_____
_____
_____

How long did it take to complete the article ? ____ minutes

What changes will you make in your practice as a result of reading the article(s)?
_____
_____
_____
_____

I hereby certify that I have read the article(s) of the activity identified above and am eligible to claim credit.

Print Name: _____
Signature:_____
Date:_____

JOURNAL OF SPECIAL OPERATIONS COMMAND READERSHIP SURVEY

The JSOM staff wants to get your feedback so we can better meet your needs. Our goal is to constantly improve the quality of this publication. Your feedback is critical in order for us to meet our goal. Please take a few minutes to fill out this survey and mail it to the address provided on the reverse side or fax it to DSN 299-2568 or commercial (813) 828-2568. Feel free to make copies of this survey and give them to everyone in your unit or office. E-mail: JSOM@socom.mil

Name:_____E-mail:_____
Branch of Service:_____Rank:_____Years in Service:_____Career Field:_____

(Please use the scale to rank the following statements)

Poor	Fair	Satisfactory	Good	Excellent
1	2	3	4	5

How do you rate the Journal of Special Operations Medicine (JSOM)? _____
How do you rate the JSOM overall readability? _____
How do you rate the layout of this journal? _____
How do you rate the quality of the articles? _____
How do you rate the variety of articles? _____
How do you rate the usefulness in enhancing your SOF medical knowledge/awareness?

How much of the issue do you usually read?

Cover-to-Cover	75%	50%	25%	Less

What is your favorite section of the JSOM? (Circle one)

Departments	Component Surgeon Offices	Education & Training
Features	Research & Development	Legacy
There I was	Correspondence	Editorials
SOMA Update	Photo Gallery	Med Quiz
Dedication		

What is your least favorite section of the JSOM? (Circle one)

Departments	Component Surgeon Offices	Education & Training
Features	Research & Development	Legacy
There I was	Correspondence	Editorials
SOMA Update	Photo Gallery	Med Quiz
Dedication		

What improvements would you make to the JSOM?

_____
_____
_____
_____

FOLD ALONG THIS LINE

UNITED STATES SPECIAL OPERATIONS COMMAND
ATTN: SOCS-SG
7701 TAMPA POINT BLVD
MACDILL AFB, FL 33621-5323
OFFICIAL BUSINESS

HQ USSOCOM/ SOCS-SG
ATTN: JSOM EDITOR
7701 TAMPA POINT BLVD
MACDILL AFB, FL 33621-5323

FOLD ALONG THIS LINE

The Death of General "Stonewall" Jackson

Cliff Cloonan, MD

Stackpole, Edward J. *Chancellorsville, Lee's Greatest Battle, 2nd Ed.,* 1988, pps 257-263

On the night of 2 May 1863, Gen. Thomas J. [Stonewall] Jackson, having just completed a most audacious flanking maneuver across the Federal front, had succeeded in turning the Federal right flank; thereby changing what otherwise would most likely have been a disastrous Confederate defeat into one of Lee's greatest victories.

"A bright moon had arisen to throw an eerie light on the Turnpike....giving [it] that unnatural appearance with which every soldier is familiar who has marched or maneuvered at night. Because they were unfamiliar with the Chancellorsville terrain neither Jackson nor any of his generals knew exactly where they were or the precise trace of their front-line position... Accompanied by several members of his staff.... Jackson....[and his]....men started out on [a] personal reconnaissance....After a bit the general halted, motioned for silence, and cocked his ear. Noises to the east and not too far off! An officer giving a command to some men; the sound of axes! That was what he had come for. The Federals were close by and fortifying their position.

"Turning their horses, the little group started to retrace their steps to their own lines. Taking up the trot....the Confederate horsemen rapidly approached the line of their own outguards....the Confederate skirmishers....saw the shadowy figures coming towards them at a rapid gait, and mistook them for a detachment of Federal cavalry looking for trouble....Hill's men opened up to repel the imagined threat, killing a captain and a sergeant in Jackson's small party....another volley from a North Carolina regiment on the north side of the Turnpike found its mark, three bullets striking Jackson as he fought to rein in his....horse. One bullet lodged in his right hand; another passed through the left wrist and came out through the palm of that hand; the third passed completely through his left arm between the elbow and the shoulder, badly shattering the large bone and cutting the main artery, rendering the arm useless....Jackson was placed on the ground in a grove just north of the Turnpike and first aid of a sort was administered [he was not Combat Lifesaver Trained]....[Captain James Power] Smith (one of Jackson's aids) reached [the general's] side after a minute [and found] General A. P. Hill holding [Jackson's] head and shoulders...Cutting open the coat-sleeve from wrist to shoulder [Smith] found the wound in the upper arm, and with [his] handkerchief [he] bound the arm above the wound to stem the flow of blood. Couriers were sent for Dr. Hunter McGuire, the surgeon of the corps and the general's trusted friend, and for an ambulance....With difficulty litter-bearers were brought from the line near by, and the general was placed upon the litter.... A moment after, artillery from the Federal side [opened up on the litter party]; great broadsides thundered over the woods; hissing shells searched the dark thickets through, and shrapnel swept the road along which [the litter party] moved. Two or three steps farther, and the litter-bearer at [Smith's] side was struck and fell, but as the litter turned, Major Watkins Leigh, of Hill's staff, happily caught it. But the fright of the men was so great that [they] were obliged to lay the litter and its burden down upon the road. As the litter-bearers ran to the cover of the trees, [Smith] threw himself by the general's side and held him firmly to the ground as he attempted to rise. Over [them] swept the rapid fire of shot and shell -- grape-shot striking fire upon the flinty rock of the road all around [them], and sweeping from their feet horses and men of the artillery just moved to the front. Soon the firing veered to the other side of the road, and [Smith] sprang to [his] feet, assisted the general to rise, pass[ing] [his] arm around him....with the [general's heavy weight upon him, they] forsook the road.

Entering the woods, [the general] sank to the ground from exhaustion, but the litter was soon brought and again rallying a few men, [Smith and the others were carrying him farther] when a second litter bearer fell....This time, with none to assist, the litter careened, and the general fell to the ground, with a groan of deep pain. Greatly alarmed, [Smith] sprang to [the general's] head, and, [the general,] lifting his head as a stray beam of moonlight came through clouds and leaves... opened his eyes and wearily said: 'Never mind me, Captain, never mind me.' [Smith raised] him again to his feet [and] he was accosted by Brigadier-General Pender: 'Oh, General, I hope you are not seriously wounded. I will have to retire my troops to re-form them, they are so much broken by this fire.' But Jackson, rallying his strength, with firm voice said: 'You must hold your ground, General Pender; you must hold your ground, sir!' and so [he] uttered his last command on the field.

"Again [Smith and the others] resorted to the litter, and with difficulty bore it through the bush, and then under a hot fire along the road. Soon an ambulance was reached, and stopping to seek some stimulant at Chancellor's (Dowdall's Tavern), [they] were found by Dr. McGuire, who at once took charge of the wounded man. Passing over the battlefield of the afternoon, [they] reached the Wilderness store, and then, in a field on the north, the field hospital of our corps under Dr. Harvey Black. Here [they] found a tent prepared, and after midnight the [general's] left arm was amputated near the shoulder, and a ball taken from the right hand.

"It was during the heavy Federal bombardment described by Jackson's aid, while the disabled corps commander was being transported to the rear, that A. P. Hill received his wound in the company with many another Confederates. Hill's wound, while slight, proved sufficiently disabling to require his removal for treatment. Several shell fragments had struck him in both legs, resulting in painful but not serious injury.

Following his surgery Jackson was moved for his own safety to the home of Mr. Chandler, a personal friend of Jackson, at Guiney's Station. For several days his condition showed encouraging improvement, but pneumonia developed and he began to grow weaker....On Sunday, May 10, Jackson was told that the end was near. Soon he became delirious, and began to issue battle orders. 'Order A. P. Hill to prepare for action. Pass the infantry to the front!' Then, calmly, as though in benediction: 'No, no, let us pass over the river, and rest under the shade of the trees." With which words the spirit of Stonewall Jackson passed quietly into Immortality.' "

GEN JACKSON AND BATTLEFIELD CARE

This is a perfect example of the difficulties associated with the delivery of medical care on the forward edge of the battle. The cause of General Jackson's mortal wounds is typical of those occurring during a nighttime passage of lines -- friendly fire. The relatively high mortality of gunshots wounds is demonstrated in this action. It should be noted that Gen Jackson's wound should NOT have been fatal. Why was it? The answer is probably complex but not the least important were the difficulties encountered in getting Gen Jackson off the battlefield and the lack of good first aid. It is not recorded exactly how many men were wounded or killed themselves while trying to get the general and his men to medical care (battlefield recovery of wounded soldiers continues to be a dangerous endeavor.) We know of at least three who were hit (one of those being Gen A.P. Hill.) It is worth noting that most of the wounds were caused by artillery fire from Federal batteries. Gen A.P. Hill's wounds were typical of combat extremity wounds, caused by fragments, which, though not life or limb threatening, did remove him from the battle. The actual time between Gen Jackson's wounding and his reaching skilled medical care is not recorded but it was probably measured in hours (most likely 2-3). The general was dropped once and forced to stand twice to assist with his own evacuation. If this were so for General "Stonewall" Jackson, imagine the plight of the typical wounded enlisted soldier. The interaction between disease and combat wounds is also to be noted in the case of General Jackson's death. Disease directly contributed to Gen Jackson's death and the pneumonia, which precipitated his death, may well have predated his wounding. The General had been ill during and before the Battle of Chancellorsville.

THE IMPORTANCE OF FORWARD CARE AND BATTLEFIELD EVACUATION

The preceding historical vignette showed the problems that were associated with the delivery of health care on the Civil War battlefield. Does it have anything to do with modern battlefield medicine? YES! It is worth noting an analysis that was done by Bellamy of ninety-eight battlefield casualties who bled to death during the Vietnam War. As many as twenty percent died from wounds that could have responded to proper first aid from either a buddy or a medic/corpsman. If even half of these soldiers could

have been saved with proper first aid, this would have represented a much greater improvement in battlefield survival than any hospital-based care could hope to achieve.

The three most important combat medical tasks, and the ones that will save more men than any others, are, (1) Rapid and effective control of bleeding, (2) Establishment and maintenance of a good airway, and (3) Rapid battlefield recovery and evacuation to an appropriate level of care. Despite their importance, the effective execution of these tasks continues to be one of the weaker links in the chain of battlefield medicine.

At the beginning of the Korean War, LTC Douglas Lindsey presented a lecture called *Professional Considerations of Patient Evacuation*, in which he stated, "It is difficult to emphasize sufficiently the importance of initial treatment on the battlefield. What the wounded soldier does in his own behalf, or what his infantry colleagues do for him; and what the company aidman does for a traumatic amputation or gaping wound of the chest, in the thick of battle, in dust and heat or in blowing snow -- on these simple procedures depend life and death. A slight improvement in the skill and judgment of the company aidman will save more human lives than will the attainment of 100 percent perfection in the surgical hospital." This continues to be the case and it was an understanding of this fact that lead to the development of the Combat Lifesaver Program. If you understand Air-Land Battle doctrine and if you understand the terrain in Korea you will appreciate that, in the dispersed and isolated units of a future battlefield, the quality of buddy care, Combat Lifesaver Care, and medic care will be more important than ever.

Despite the developments that have taken place in helicopter evacuation since the Korean War, it is likely that in any future Korean conflict far forward helicopter evacuation will be limited at best (for a variety of reasons). This means that initial evacuation will be done much the same as it has since the Civil War. It must, therefore, be done effectively. During the Korean War, General Sams (a senior medical officer) stated that "front-line evacuation was actually less effective in Korea than during World War II." Sams was not alone in making this assertion, the famed Dr. Charles H. Mayo expressed the belief that soldiers wounded in Korea were "more likely to die in aid stations, awaiting evacuation, than were Marines." Gen. Sams stated that "of the quality of the front-line hospitals and the professional care available in them he had no doubt: I think they are unequalled by any I have seen anywhere in the world. But, our death rate -- talking about men who are hit -- is far higher than the last war because many do not reach the hospitals. My impression is about 4,000 men, who have died, should be alive." Despite Gen. Sams more favorable perceptions of evacuation during WWII, the mountainous terrain and the intense enemy resistance encountered during operations in Italy (just like Korea) caused considerable delays in evacuation. This was noted in the 1943 winter quarterly report of the Canadian I Corps which stated that, "Although Divisional and Corps Medical Directors routinely stationed Forward Surgical Centers less than five miles behind Advanced Dressing Stations, casualties still arrived an average of 6.8 hours after wounding."

Albert E. Cowdrey, in his excellent book, *The United States Army in the Korean War, The Medics' War*, states the following: "It now seems clear, with the documents available to scrutiny, that one of the most frequently repeated statements about the war, that death rates among the wounded in Korea were reduced below World War II levels, must be limited to the wounded who reached the hospitals before it can be fully accepted. Too often the nature of the war, the topography of the land, and the Army's system for obtaining aidmen and training doctors and enlisted medics alike combined to prevent the wounded from reaching the clinical miracles that waited in the hospitals. Once there, casualties received exceptionally competent care."

Unfortunately, the following statement, made by Gen Sams nearly 40 years ago, continues to be true: "In spite of our efforts, the medical system's weakest link in its chain of evacuation is still the first. The problem of getting the casualty to the battalion aid station has not yet been solved."

Although helicopters have certainly decreased the transit time from the forward dressing or battalion aid stations to combat zone hospitals, evacuation times will most likely continue to be long. Much of the delay is unrelated to actual movement time. Some is directly attributable to the circumstances of combat and hence cannot be reduced through training. Evacuation training can help, however, and where evacuation times can't be reduced, buddy aid, Combat Lifesaver, and medic skills will have to keep the patient alive until higher levels of care can be reached.

Legacy

Nail 65/Jolly Green 05 Mission

Oliver R. O'Mara, Capt RCC
Jolly Green 36

On 6 February 1967, I witnessed a display of bravery by Major Patrick N. Wood, FR60158, the RCC of Jolly Green 05 that was without a doubt above and beyond the call of duty. On that date, Jolly Green 05 as Low Bird, and myself as RCC of Jolly Green 36, the High Bird, were launched from Nakhom Phanom RTAFB at approximately 0830 hours to effect the pickup of Nail 65, a FAC pilot who had bailed out after being hit by ground fire, at a position approximately three miles northeast of Mu Gia Pass, North Vietnam. Flight time to the area was approximately one hour. During this time, Major Wood, as the lead RCC, briefed me over our discrete FM frequency on his proposed tactics. He directed me to stay in a safe area, since Mu Gia is notoriously known as one of the most heavily fended areas in North Vietnam. Upon our arrival in the area, voice and beeper contact was established with Nail 65. Sandy 5 and 6 immediately descended to pinpoint the survivor, and shortly thereafter called down Jolly Green 05.

Major Wood made his descent to the east away from Mu Gia and proceeded up the karst valleys into the area. During his descent, Sandy advised Major Wood that they had observed 37mm fire from a ridge to the north. I observed several airbursts during the time at about 8,000 feet. Major Wood remained low, keeping below and between ridges, which protected him from enemy guns. At this time, Nail 65 advised that he had heard some noises and was terminating his radio transmission for fear of being observed. Major Wood knew that this might mean capture for Nail 65 and elected to press home his search of the karst in a vain attempt to locate the pilot. At one point during the search, he observed chaff in the jungle trees and lowered his PJ to the ground in the hope that this was a signal from the downed pilot. After several more 37mm rounds were lobbed into the area and no further contact was made with the pilot, all forces were recalled and returned to NKP for further developments.

At approximately 1630 hours, an airborne fighter pilot in the area of Mu Gia reported resumed voice contact with Nail 65. Major Wood in Jolly Green 05 and myself in Jolly Green 36 were again launched to the area as low and high bird respectively. Approximately an hour and a half remained until darkness. Major Wood expedited his entry into the general area, overflew Mu Gia and stationed himself in an area where he could make a let down. Sandy 5 and 6 had preceded us into the area and had established voice contact with Nail 65. However, because of a low overcast that in some areas covered the mountaintops, they were unable to descent and pinpoint the downed pilot. At this time, with darkness approaching and weather deteriorating, Major Wood elected to descend unaccompanied below the overcast in an attempt to retrieve Nail 65. Again 37mm airbursts were observed in the general area at about 7,000 feet.

At this time, Major Wood would have been completely justified as Mission Commander to terminate the missionand because of the elements and enemy presence. However, knowing that this meant almost certain capture during the night for the downed pilot, he again elected to pursue the pickup. He announced that he was under the overcast and in contact with Nail 65.

After a short time, after receiving directional headings from Nail 65, Major Wood transmitted that he had the pilot in sight and was going in for the pickup. After radio silence of approximately 3 minutes, Major Wood transmitted that he had Nail 65 aboard and was pulling out. Almost immediately, his tragic transmission, “We’re hit, we’re hit and on fire!” was heard. I descended into the area, confirmed the crash and after three passes, ascertained no sign of life, other than the bailed-out PJ (Duane Hackney), whom

I picked up and returned to base.

My own association with Major Pat Wood began in the same Rescue Group, the 3rd, while in Korea 13 years ago. I knew him then as a young dedicated rescue pilot. He remained dedicated in the highest tradition of Pararescue. My finest tribute to him is to know and say that Major Patrick H. Wood, after calculating the risk, truly risked his life in an attempt to save another. Failure to give proper recognition to Major Patrick H. Wood for his gallant valor would be a grave injustice to him and to members of Pararescue.

EXCERPTS FROM "WARRIOR/HEALER: THE UNTOLD STORY OF THE SPECIAL FORCES MEDIC"

Editors Note: Len Blessing Jr., a retired SF medic, has spent the last three years on a project to write a book that will tell the untold story of "The Special Forces Medic." We have agreed to publish the excerpts of Len's book, not to advertise it, but, because we believe strongly in his desire to document and preserve the complete history of Special Forces medical operations.

The JSOM plans to provide "Lessons Learned" from all levels of SOF medical providers as well as record SOF medic stories for historical purposes.

The JSOM is YOUR tool to share medical information and experiences unique to this community. We will carry the excerpts from chapters 2&3 in the Fall Edition of the JSOM.

mdd

The following excerpts from "Warrior/Healer: The Untold Story of the Special Forces Medic" represent three years of painstaking yet exhilarating experiences encountered during the process of documenting a remarkable story. Initially dubbed, "Project BacSi," the manuscript has evolved much like the SF medic and his training. The original idea was to document the experiences, exploits, and accomplishments of the Vietnam War era SF medic. Just two weeks into the quest it became evident that to restrict the project's scope to that time frame, remarkable as it is, would be an extraordinarily huge error and be an injustice to ALL Special Forces medics, past and present. Each medic from 1952 to this day has contributed to the growth and accomplishments of Special Forces medical operations.

While I want the excerpts to generate excitement and anticipation for the eventual publication of the book, the purpose of having the JSOM print them is not self-serving. The main objective is to spread the word about the project and garner more support and participation to accomplish a greater goal. Currently, over 200 SF medics, doctors, and team members have joined to assist me with this mammoth project. The range of generations represented covers the first class of medics with the original 10th Group to a handful of active duty members. Obviously, it is impossible to cover everyone and everything in just one book, but who said we have to stop at just one?

This leads to the greater goal alluded to earlier. The extended mission of this project, self imposed and assigned, is to collect, categorize, document, and preserve the complete history of Special Forces medical operations. This can only be accomplished with your support and participation. It is my hope that this article and the book will inspire and encourage each of you to climb aboard and contribute in any way you wish to reach this goal.

Please feel free to contact me.

Leonard D Blessing Jr.
302-762-6022
lenblessing@comcast.net

Warrior/Healer: The Untold Story of the Special Forces Medic

Excerpts from the ***Prologue***

20 June 2002, Fort Bragg, North Carolina

A charter bus slows to a stop in front of the Joint Special Operations Medical Training Center (JSOMTC). The men aboard grow quiet as the realization weighs heavily that the moment has finally arrived – they have come home.

***

My personal journey into this magnificent and fascinating world had begun two years prior to the cathartic week of June 17-23, 2002 in Fayetteville N.C./Ft. Bragg – home of the United States Army Special Forces (Airborne). I have come to know a much different reality about these men than is generally known, other than misguided perceptions and false images developed through the media and movies.

***

I must admit that I had absolutely no idea what I was embarking upon. Never in my wildest dreams could I have imagined the intricacy and scope the project would encompass. Ironic, yet fitting, that it evolved and changed with each facet uncovered, much like the development of the medic-training program. Originally, the concept was to relay the story of Vietnam War Special Forces medics, hence the project's working name of Bac Si. Once investigating and documenting the individual achievements and experiences began, it became apparent that to focus on that period would be a huge injustice to the whole medical effort combined. The years prior to Vietnam involvement and the evolutionary triumph in the face of many obstacles and deterrents contributed and impacted the medics that served in Vietnam dramatically. Along with the victories came failures, but these failures are not contained within the definition of the word, as most people understand it. The knowledge that came from success and failure was integrated into the training and operational use that contributed to the overall scheme and goals of the medical program, past and present.

The preconceived ideas and thoughts of the word 'medic' are quickly obliterated once the scope of their training and abilities begins to surface. Usually, upon hearing the word, it is natural to think of the traditional combat medic in an infantry line unit. This is not a slander toward the brave men that performed heroically in that capacity. In fact, many of the early volunteers were medics with combat experience during World War II and Korea as traditional regular army medics. The Special Forces medic is quick to profess his admiration and respect for his fellow healers. The process of writing this story developed through patient trial and error, just as the medic did. By attending reunions and visiting individuals the slow process of gaining trust and acceptance into this tightly bound group of men began.

***

Finally, they can be recognized for the unselfish and positive actions carried out with compassion and professionalism. The medic and his role are a microcosm of an American's attitude, beliefs, and perseverance. In spite of the difficulties encountered, a firm belief in your convictions and abilities combined with dedication, hard work, and believing in yourself – the day will be won.

It is with great pride and pleasure I present to you the untold story of – The Special Forces Medic.

Warrior/Healers: The Untold Story Of The Special Forces Medic

Excerpts From ***Introduction***: "They Call Me Doc"

> "The Medical Specialist is responsible for the health of the detachment and the guerrilla force; the medical training of guerrilla personnel; and when the situation permits he can assist in winning the support of the local populace to the cause of the guerrilla force by administering first aid to civilians in the area. He must be proficient in all aspects of first aid to include minor surgery, emergency dental care, sanitation, establishment of guerrilla hospitals, evacuation procedures, and medical supply and re-supply procedures. The Medical Specialist is assisted in the performance of his duties by the Assistant Medical Specialist. This man must have the same skills as the Medical Specialist. When the detachment is split he assumes the responsibility for medical activities for the portion of the detachment to which he is attached."[1]

***

The Special Forces medic is a unique breed among a group of unique individuals. He embodies what the American soldier represents. He is a highly trained professional soldier who is compassionate and caring to those he is asked to help. "Doc" is an expression of respect and trust that is displayed by his team and the people he treats. Doc, spoken in any language, conveys the immense capabilities and responsibilities that the medic embodies, and the love that is felt for him by all those with whom he comes into contact. There is no greater love than that which exists between the men of the Special Forces and their "Doc." His role with the team is that of soldier first, healer second. At times, both roles are performed simultaneously. This aspect of the medic cannot be stressed enough; it is a part of what makes him so unique. The weapons and medicine have changed but the practice of the medic, as a combat arms soldier first, remains the same to this day. Each soldier knows the medic will come to his aid to provide physical and mental healing during the chaos of combat and its aftermath. "The story of the Special Forces medic is one of deep commitment and passion that displays a little known side of war. You can be true to your mission and country but also display a human side to your fellow man."[2]

The Special Forces medics' accomplishments, perseverance, heroism, and dedication are a story that few people know. Their training and skills have developed and advanced to meet the needs of the United States Army Special Forces (Airborne) mission "whenever and wherever" they are called upon to go and serve "anytime, anyplace" as the "quiet professionals." The medical training is rigorous, demanding, and extensive. The formalized training cycle has evolved to become distinguished as the only form of medical training for enlisted personnel not under the full command of Ft Sam Houston's Brooke Army Medical Center. Of the five basic Special Forces specialties, it is the most lengthy and concentrated training cycle. The time invested to train a medic lasts over 40 weeks.* The training cycles are broken down into separate phases, with elimination of students occurring throughout the process. The final challenge for all of the training that the students have received culminates with a pass/fail oral (board of) examination.

The Special Forces medic is trained to perform far more than emergency first aid techniques on the battlefield. One rule is always in practice: "Do No Harm." This means the medic is trained in advanced medical procedures but he is always to perform within his bounds and capabilities. "Perhaps most important of all was the requirement for the medical enlisted man to understand his limitations – the Special Forces medical specialist is not a doctor and always reminded that he must never assume that he is one. His first commandment is that he should understand, accept, and practice the Special Forces Aidman Medical Pledge which described the limits of his right to perform medical services. It is his Hippocratic Oath."[3]

Upon graduation from training, the medic is prepared to participate in unconventional warfare, in locations ranging from snow-covered mountains in Iran to the steaming jungles of South America. In addition to his combat arms role, he provides medical care for the team, the indigenous troops they are training, and their dependents. His training has prepared him to be the only source of medical care, operating far from support with limited communications to the outside world. The nature of unconventional warfare requires him to be prepared for any situation that may require general surgery. The Special Forces medics perform a wide variety of skills such as the debridement and suturing of wounds, extracting bullets and shrapnel, prescribing and dispensing medication, setting broken bones, identifying diseases and implementing strategies to eliminate and prevent them, dentistry, delivering babies, developing sanitation practices, veterinary services, and much more. The

demands placed upon the medic to perform in these surroundings are incomprehensible to most. They can be faced with situations that many emergency room medical doctors will never be faced with in a lifetime of practice. This is not a knock on any doctor – it is statistically true, given the rate of incidents of traumatic injury which can occur during combat and the condition of the area of operations in which the medic works. The medics' mission is not limited to warfare. The extensive training dedicates a tremendous amount of time to preventive measures to avoid, or at least minimize, injury, sickness, and disease. A part of the training the medic receives also includes skills to be an educator. This is an overall part of the Special Forces mission: teaching those that they are assisting how to continue these programs after the team leaves.

* Periodic adjustments have resulted in a training cycle as low as 32 weeks; however, the program has hovered around 42 weeks most of its existence, especially during the Vietnam era. Currently, the training program is 46 weeks.

References

1. Annex B to Training Memorandum #3, undated, part of authors collection
2. Campbell, Paul F., Interview with author, March 1, 2001
3. Simpson, Charles M., Inside the Green Berets: The First Thirty Years: A History of the US Army Special Forces, Forward, PP xiii

Excerpts From *Chapter 1:* "Damn Good Medics"

The SF medic came into being when COL Aaron Bank, the 10th Group's first Commander, designated an E-7, Sergeant First Class, slot for an enlisted medic for each operational detachment. There were no "particular requirements for the single enlisted medic."[1] Bank was adamant concerning one point of criteria: each team was to contain "damned good medics!" This requirement was essential and based on Bank's belief that "…the absence of any organic medical capability, often resulted in needless death and suffering among OSS operatives."[2]

Colonel Bank further defined the role of the enlisted medic in an unconventional warfare situation as part of an operational detachment:

> "His assignment was to carry out the normal aidman functions, develop an indigenous medical network in the team's sector, plan and supervise their training and physical setup. Establish clandestine methods of transporting casualties, setting up safe houses, storage and distribution of medical supplies, arrange for possible exfiltration of serious cases and requisition of supplies."[3]

Colonel Bank's statements convey the enormous amount of responsibility and training that would be required of an individual to carry out their portion of the mission. Bank also emphasized the importance of training and why the medic would need above average skills and knowledge:

> "Admittedly, in under developed countries indigenous medical personnel would usually not be available and the aidman would be more or less on his own, but in Europe they would be, always remembering that the anticipated area of operations for Special Forces would be behind the Iron Curtain…even in these areas it might be difficult to develop a medical net. The requirement arose that the Special Forces aidman be as professionally competent as possible."[4]

Carey "Drum" Drumheller somewhere in Germany with 10th Group in 1954.
Photo courtesy of Carey Drumheller

Men like Alan Maggio, Coy Melton, Edward Montgomery, Manfred Baier, Carey Drumheller, Paul Campbell, Earle Peckham and Ned Miller would help make COL Bank vision a reality. They and many others placed the

first stepping stones for future generations of medics to follow. Many contributed their skills to more than just the medical Military Occupational Skill (MOS) by serving on teams in other capacities, lending more experience and abilities to the team. Coy Melton served in every capacity on a Special Forces team while Paul Campbell became an operations and intelligence NCO. Others, like Al Maggio, spent almost their entire career as a medical specialist. The Program of Instruction (POI) and the training techniques continuously evolved drawing from their experiences and the ever changing needs and demands of the Special Forces mission. They took part in events that shaped the proud history and tradition of Special Forces and our nation.

***

COL Bank realized the task of developing a training system that would produce this new and unique soldier was enormous. It would require specialized training exceeding that of the typical aidman. Current training procedures were not going to suffice to meet the special needs of unconventional warfare. Requirements were developed "giving only minimum consideration to the limitations imposed by the lack of formal medical education of the unit's aidman."[5] The first Army Medical Department (AMEDD) officer to be assigned to Special Forces, 1st Lt Robert E. Elliott, MSC (Medical Service Corps) arrived at Ft Bragg, July 18, 1952. He worked with COL Bank and his staff to develop the training program that would fit the needs of the Special Forces Medic. The Chief Medical Aidman's Course, formulated by 1st Lt Elliott, was specifically designed for Special Forces Medics. Once the requirements for the medical training had been formulated, they were submitted to the Pentagon. COL Bank details the creation of the new training as it developed among higher command elements." They contacted the medical center at Ft Sam Houston and arrangements were made to afford a broader and more professional medical course for our aidman…since late 1952 all initial medical training for Special Forces was conducted here."[6] The Chief Medical Aidman's Course eventually became the mid-level course for SF Medics in future years. The academic challenge the course presented was, in their words, "by far, the toughest and most intense instruction ever received."[7]

There was no time wasted getting the program underway. A weekly Activities Report issued from the Psychological Warfare Center, dated October 11, 1952, just four months after the formation of the 10th Group, outlines the first recorded activity addressing the training for medics. During the week beginning October 13, 1952 an advanced cadre training course began with emphasis placed on communications and medical instruction. Less than a month later, another Weekly Activities Report from Headquarters, dated November 8, 1952, stated that preparations would be made to send 28 enlisted men to attend the Chief Medical Aidman Course at Ft Sam Houston, Texas. Two weeks later, another Weekly Activities report documents that the official beginning for medical training commenced on or around November 22, 1952 when 28 enlisted men departed for Ft Sam Houston to attend the eight week Chief Medical Aidman School.

***

Many of the early doctors and surgeons should be especially noted for their work and dedication to the furtherance of medicine in Special Forces. An assignment to Special Forces was virtually considered a career stopping disaster. Special Forces, for the most part, were not highly thought of within US Army command elements, especially by officers who wished to advance in rank. COL Valentine Sky's [the first 1st SFG(A) Group Surgeon] comments about his own request for transfer to Special Forces reflect these feelings among the regular Army officers:

> "My request at that time was considered unfavorable and I was sent back to 101st Airborne Division in Fort Campbell, Kentucky. In Fort Campbell, I was Battalion Surgeon of the 326th Engineering Battalion, Airborne. Then with the Medical Company, then with the Division Artillery, and finally I became acting Division Surgeon in 1959. In December 1959, I said goodbye to General Westmoreland, who used to be at that time, the Division Commander, and I took my family, three kids, my wife and a dog, and took off to Okinawa."[8]

COL Sky, at the time a major, arrived on Okinawa February 22, 1960. "That was my most colorful and pleasant assignment in my military career"[9] He describes with joy his time and happy memories on a personal level that is endemic to all Special Forces members. "My family enjoyed very much Okinawa, and my wife enjoyed that she was taken in, in a very nice circle of ladies from the 1st Special Forces Group, and we felt we belonged to one little family. I spent three and a half years in Okinawa."[10]

It is indeed a very special family.

***

As the 1st Group worked out the logistics of their medical program, the 77th Group, back at Ft Bragg, was developing a five week course that eventually became known as the Advanced Medical Training School (AMTS). Over the years, the name would change from Surgical Research Laboratory to Clinical Research Laboratory to Advanced Medical Research Lab and finally, today's Joint Special Operations Medical Training Facility (JSOMTF). The duration of the course initially lasted five weeks, and eventually extended to eight weeks in the early 1960s. SFC Ralph Drouin, the first NCOIC of the facility recalled the uncertain and unstructured training regimen: "The initial training was more or less played by ear…we tried different procedures to see how well the enlisted men would pick up on these procedures, see how much they could handle and just what we could give them."[11] In the summer of 1959, Captain John L. Bond, MC, received approval to establish a small surgical research facility in the "old hospital" area across Ardennes Road from Womack Army hospital. Captain Bond wanted to provide additional surgical practice for hospital surgeons. SFC Drouin possessed impressive medical training requisites that included being a graduate of the Naval Hospital Corps School, Independent School for Medical Corpsmen, Dental Technician School, Pararescue and Survival School, and the Medical Specialist Advanced Course at Fitzsimmons General Hospital. Drouin also possessed another equally important ability to "locate" needed medical supplies and equipment, which is a signature of all Special Forces soldiers. It would not be the last time the quick thinking ability to "acquire" needed materials to accomplish a task would be demonstrated by a resourceful medic. An informal agreement between Captain Bond and the 77th Group Surgeon provided the manpower from the 77th to maintain the facility. In return, hospital physicians and SF medics had the opportunity for hands on training.

***

Dr Skemp's [who accompanied the first teams (rotation) to Laos during HOTFOOT operations.] observation and opinion reflects what the medic is taught and the creed under which he practices his medical knowledge--"Do No Harm." The early experiences in Laos and Vietnam brought change to the training procedures. Better diagnostic courses were developed and implemented into the instruction received at Ft Sam. Standardized procedures were developed for written reports of medical activities. This information was then disseminated through the appropriate channels for future training and deployment considerations.

The experience of medics operating in the field without direct supervision was both positive and negative. Positive, because they were capable of operating and handling issues that arose while deployed in a real environment. Negative, because of the lack of coordinated communication with the surgeons assigned to the control team in Vientiane, Laos and the individual medics scattered throughout the country. Special Forces was moving rapidly into a new role based on political decisions by the Soviets to expand communism's reach through insurgent activities. The United States was committed to countering that expansion. Special Forces would perform with unyielding dedication and honor.

References

1. COL Bank, Aaron, Letter to Major Louis Dorogi, March 24, 1976.
2. Ibid
3. Ibid
4. Ibid
5. Ibid
6. Ibid
7. Ibid
8. COL Sky, Valentine B., MC, Letter to Major Louis Dorogi, June 30, 1976.
9. Ibid
10. Ibid
11. Drouin, Ralph C., Interview with Major Louis Dorogi, October 5, 1975.

SOF RELATED BOOK LIST

The following is an compiled list of SOF related books recommended for your reading by those that were there. The list is complements of Len Blessing with the assistance of all of you. If anyone has other books they would like to add to the list, let us know. Three new books have been added since the Fall Edition.

TITLE	AUTHOR
15 Months In SOG	Thom Nicholson
A Concise History of US Army Special Operations Forces, with Lineage and Insignia	Geoffrey T. Barker
A Very Short War (about the last gunfight and the last sacrifices of the Vietnam-era war in the recovery of the crew and ship SS Mayaguez in 1975)	John F. Guilmartin, Jr
Advice and Support: The Early Years	Ronald H. Spector
Airborne and “Special Forces” (non-fiction, good quick references, especially for family or civilians)	Hans Halberstadt
Battle for the Central Highlands: A Special Forces Story	George E Dooley
Beyond Nam Dong	Roger Donlon
Blacjack -33: With Special Forces in the Viet Cong Forbidden Zone	James C Donahue
Blackjack -34 (Previously titled “No Greater Love”)	James C Donahue
Bravo Two Zero	Andy McNab
Break Contact Continue Mission (fiction)	Raymond D. Harris
Bunard: Diary of a Green Beret	Larry Crile
Che Guevarra on Guerrilla Warfare	Ernesto Gueverra
Code Name Bright Light	George J. Veith
Code Name:Copperhead	SGM Joe R. Garner (Ret.)
Covert Warrior	Warner Smith
Edward Lansdale: The Unquiet American	Cecil B. Currey
Elite Warrior	Lance Q. Zedric
Fighting Men: Stories of Soldiering	Jim Morris
Five Year To Freedom	James N. Rowe
From OSS to Green Berets	Col. Aron Bank (Ret)
Ghost Soldiers: The Epic Account of World War II's Greatest Rescue Mission (Ranger operation to free POWs in the Philippines)	Hampton Sides
Green Berets At War	Shelby L. Stanton
Green Berets at War: US Army Special Forces in Asia 1956-1975	Shelby L. Stanton
Green Berets in the Vanguard: Inside Special Forces 1953-1963	Chalmers Archer Jr
Guerrilla Warfare: On Guerrilla Warfare	Mao Tse tung
Hard To Forget	Steven M. Yedinak
Hazardous Duty	MG Jack Singlaub (Ret)
Ho Chi Minh: A Life	William J Durker
I Served	Don C. and Annette R. Hall
In The Village of the Man	Loyd Little
Inside Delta Force: The story of America’s elite counterterrorist unit	Eric L. Haney
Inside the Green Berets: The First Thirty Years	Charles M. Simpson III
Killing Pablo: The Hunt for the World's Greatest Outlaw (read by current SF medic that knows some of the guys involved in getting Pablo; told him that the book is pretty accurate, except what happened in the actual killing.)	Mark Bowden
Laos: War and Revolution	Nina S. Adams (Ed.)
Logistical Support of Special Operations Forces During	Donald W. Betts

TITLE	AUTHOR
Operations Desert Shield and Desert Storm	
Long Shadows (fiction)	Kent White
Lost Crusade: America's Secret Cambodian Mercenaries	Peter Scott
MAC-V-SOG Command History Vol. I & II	Charles F. Reske
Medal Of Honor	Roy P. Benavidez
Mike Force	L H. Burrus
Mobile Guerrilla Force: Wth the Special Forces in Warzon D	James C Donahue
My Secret War	Richard S. Drury
Night Jungle Operations	Thomas B. Bennett
Night of the Silver Starts: The Battle of Lang Vei	William R Phillips
No Surrender (Japanese soldier who evaded capture and survived 30 years in the Philippines; it's a great book about perseverance and commitment to warrior ideals)	Hiroo Onoda
Once A Warrior King: Memories of an Officer in Vietnam	David Donovan
One Day Too Long	Timothy N. Castle
OSS to Green Berets	Aaron Bank
Parthian Shot	Loyd Little
Peoples' War, Peoples' Army	Vo Nguyen Giap
Perilous Options: Special Operations as an Instrument of US Foreign Policy	Lucien S. Vandenbroucke
Phantom Warriors, Book II	Gary A. Linderer
Phantom Warriors: LRRPs, LRPs, and Rangers in Vietnam, Book I	Gary A. Linderer
Prairie Fire (fiction)	Kent White
Project Omega: Eye of the Beast	Ernie Acre
Rangers at War: Combat Recon in Vietnam	Shelby L. Stanton
Reflections Of A Warrior	Franklin D. Miller
Rescue Of River City	Drew Dix
SF Bibliography: Collection of articles and other readings with Special Forces topics	Radix Press/Dan Godbee
Shadow War: Special Operations and Low Intensity Conflict	H.T. Hayden
Shadow Warriors: Inside the Special Forces	Carl Stiner and Tomy Koltz
Sideshow (the US, Khymer Rouge & Cambodia)	Robert Showcross
SOG and SOG Photo Book	John Plaster
SOG: Volume 1	Harve Saal
Soldier Under 3 Flags	H. A. Gill (PB)
SPEC OPS: Case Studies in Special Operations Warfare: Theory and Practice	William H. McRaven
Special Forces 1941-1987	LeRoy Thompson
Special Forces of the US Army	Ian Sutherland
Special Forces, the US Army's experts in Unconventional Warfare	Caroll B. Colby
Special Forces: A guided tour of US Army Special Forces	John Gresham
Special Men and Special Missions: Inside American Special Operations Forces, 1945 to the Present	Joel Nadel and J.R. Wright
Spies And Commandos	Kenneth Conboy
Strategy and Policy Background Umbrella Concept for Low Intensity Conflict	Alex & Hamilton Booz
Street Without Joy (French in Indochina; Good groundwork for SF in Vietnam)	Bernard B. Fall
Talking with Victor Charlie: An Interrogator's Story	Sedgwick D. Tourison, Jr.
Tam Phu	Leigh Wade
The Chindit War (good section on Merrill's Marauders)	Shelford Bidwell

TITLE	AUTHOR
The Company They Keep	Anna Simons
The Devil's Brigade	Robert H. Adleman
The Dying Place (fiction)	David A. Maurer
The Green Berets	Robin Moore
The Green Berets in Vietnam, 1961-71	Francis J. Kelly
The Last Confucian	Denis Warner
The Making of a Quagmire	David Halberstam
The Montagnards of South Vietnam	Robert L. Mole
The New Legions	Donald Duncan
The One That Got Away (This is the other half of the Bravo Two-Zerostory [a very good read on human endurance and tenacity])	Chris Ryan
The Politics of Heroin in SE Asia (essential reference for understanding the Golden Triangle)	Alfred McCoy
The Protected Will Never Know	Leigh Wade
The Raid	Benjamin F. Schemmer
The Ravens (the classic about our Bird Dog brothers)	Christopher Robbins
The Rescue Of Bat-21	Darrel D. Whitcomb
The Road to Arnhem: A Screaming Eagle in Holland	Donald R. Burgett
The Secret War Against Hanoi: The Untold Story of Spies, Saboteurs and Covert Warriors in North Vietnam	Richard H Shultz Jr
The Secret Wars: A Guide to Sources in English, Volume II, Intelligence, Propaganda and Psychological Warfare, Covert Operations, 1945-1980	Myron J. Smith
Tragedy in Paradise: A country Doctor at War in Laos	Charles Weldon MD
Umbrella Concept for Low Intensity Conflict	Alex & Hamilton Booz
Unconventional Operations Forces of Special Operations	Mark D. Boyatt
Uneasy Warrior	Vincent Coppola
Urgent Fury: The Battle for Grenada	Mark Adkin
U S Army Special Operations in World War II	David W. Hogan Jr.
U S Special Forces	Peter McDonald
U S Army Special Forces 1952-84	Gordon L. Rottman
U S Army Handbook for North Vietnam Dept. of Army: 550-57	
U S Army Handbook for Cambodia Dept. of Army: DA Pam: 550-50	
U S Army Handbook for Laos Dept. of Army: DA Pam: 550-58	
U S Army Handbook for South Vietnam Dept. of Army: DA Pam: 550-55	
U S Army Handbook: Minority Groups in the Republic of Vietnam: Ethnographic Series Dept. of Army:DA Pam: 550-105	
Vietnam Above The Tree Tops: A Forward Air Controller Reports	John F Flanagan
Vietnam in American Literature	Philip H. Melling
Vietnam Military Lore: Legends, Shadow and Heroes	Master Sergeant Ray E Bows (Ret)
Vietnam Order of Battle: A Complete, Illustrated Reference to the US Army and Allied Ground Forces in Vietnam, 1961 - 1973	Shelby Stanton
Vietnam Studies: Command and Control 1950-1969	Maj Gen George Eckhardt
Vietnam: A History	Stanley Karnow
Vietnam: The Origins of Revolution	John T. McAlister Jr.
Vietnam: The Secret War	Kevin M. Generous
War Stories of the Green Berets: The Vietnam Experience	Hans Halberstadt
War Story	Jim Morris
Who's Who From MACV-SOG	Stephen Sherman

Recently (15 July) I sent out an email with an article from the St. Petersburg Times regarding the SOF medical training in Tampa and St Petersburg. The article was titled "Shoot First, Heal Later." SFC James Lawler, one of the instuctors with the students at Bayfront Medical Center was quoted in the article as saying "I have the sternness to stomp someone and the softness to kiss a baby..." What he claims he really said was "I am a medic, but on the same turn I have the fortitude to stomp you." "A *civilian* that was with me said, 'and then kiss a baby'!" Hopefully this clarification will help to restore his ruined reputation!

Below are a few of the comments that where recieved regarding the article.

It was quite informative about the program and lets Americans know that their sons and sometimes daughters will get the best care we can afford.

Thanks, Great article. This is the promotion SOF medics need.

Great article Thanks for sharing!

Great Article! Hooah! Thanks for sharing it.

Thanks for forwarding the article, greatly appreciated.

We appreciate the recognition given to these very dedicated and hard working young men. They go through a lot (more than you can imagine) to get the heroic status of being a SOF medic. Having an article justly written that portrays how truly special these guys are is genuinely appreciated!

Editorials

Dear Editor:

Your article "GO/NOGO" in the Spring Vol 3 Ed 2 on medications to assist with sleep or wakefulness was much appreciated. While many people are aware of the possible psychiatric side-effects of amphetamines, I would like to call your readers' attention to the possible psychiatric side-effects of ephedrine-containing compounds.

Ephedrine-containing compounds, including ma-huang, are known to cause psychosis and/or mania in people who take excessive amounts.[1,2] In addition to these and many other published reports, I have personally seen ephedrine cause both paranoia and mania in my psychiatric practice. Over the past two years, I treated three people who experienced paranoia significant enough to require admission to a psychiatric hospital after overusing ephedrine-containing compounds. One of those patients also developed mania. There was no prior psychiatric history in one of those patients, although two of them had prior psychiatric hospital admissions for possible bipolar disorder.

All military personnel, particularly those in medical positions, should remain aware of the possible behavioral consequences of these medications, particularly over-the-counter herbal preparations that may contain ephedrine.

Sincerely,

Bruce Capehart, MD, MBA
Major, Medical Corps, US Army Reserve

Military Occupation:
Executive Officer and Psychiatrist
1493D Medical Detachment (Combat Stress Control)
Durham, NC 27707

Civilian Occupation:
Staff Psychiatrist
Federal Medical Center
Butner, NC 27509
919-575-3900, ext 5477

References:

1. Tormey WP, Bruzzi A. Acute Psychosis Due to the Interaction of Legal Compounds. Med Sci Law 2001 Oct;41(4):331-6
2. Boerth JM, Caley CF. Possible Case of Mania Associated with Ma-Huang. Pharmacotherapy 2003 Mar;23(3):380-3

Two Upcoming CME Conferences

SOMA '03

Steve Yevich

SOMA '03 will open on Monday, 8 DEC 03, lasting until Thursday, 11 DEC 03, at the usual location - the Downtown Tampa Hyatt, Tampa, FL. The theme for this year is "Special Operations Medicine - Tip of the Spear for Today's Wars," stressing Afghanistan, Iraq, and homeland defense issues. There will be several noticeable changes for this year's conference. The involvement of the civilian tactical community will be greatly increased. Recognizing the likelihood that the military will be working closely with civilian communities in the event of a homeland mass disaster, SOMA is proactively increasing the civilian special operations medical community participation in the agenda, aiming to increase the cross-fertilization between the civilian and military SOF medics. In addition, Dr Carmona, the US Surgeon General and prior 18D, has again agreed to attend. There will be several breakout panels scheduled to allow for ad hoc presentations by recent returnees from the conflicts de jour, giving us flexibility in programming, while still meeting the CME/CEU requirements. The military aeromedical conference will again be run concurrently with SOMA, offering SOF and non-SOF flight surgeons and medics the opportunity to inter-educate. Remember, these are the people who fly choppers into hot LZs to pick up SOF casualties. Mutually understanding each other's capabilities and missions, and even personally recognizing each other, may help you in the future.

Input to SOMA Agenda? If you would like to recommend speakers or topics for SOMA '03, or better yet, if YOU would like to give a talk yourself, contact the program committee (syevich@hotmail.com), or the civilian SOF POC (Bill Bograkos, irisbo@earthlink.net).

The second annual **SOMA Challenge** is scheduled for Tuesday, 9 DEC 03. Again, this combined physical fitness/medical scenario event will be highlighted by its unpredictability in types and number of events to reflect the unpredictable nature of the SOF mission. The events, however, will not be daunting, so no one should feel intimidated about entering, although the SOF super jocks and super medics will still feel challenged (you can still do well even if you have no medical background). Individuals, as well as two-person teams, can compete. For teams, the best score of the two participants for each event is used; both team members do not have to participate in the entire challenge - e.g. one can run, the other can take the tag and then swim. No special equipment can be used - in fact, no watches/timepieces will be allowed this year. Gloves may be used - but who knows if you'll need them? The prize categories will be: first male overall; first female overall; first male team overall (mixed male/female teams will be considered "all male"); first all-female team overall; oldest individual finisher (regardless of place); oldest team finishing (determined by the combined ages of the team members).

WEBSITE CHANGE!!!!! Our website has changed. It is now **www.specialoperationsmedicalassociation.org**, a change from our previous site www.soma.org - due to circumstances beyond our control. We're working to get the old URL back.

Memberships

Due to the number of continuing requests for SOMA Lifetime memberships, they will still be offered until 11 DEC 03 -- $500 for physicians, $400 for non-physicians. You can obtain these memberships by writing to the SOMA Treasurer, Russ Justice, at justicer@earthlink.net or through the **www.specialoperationsmedicalassociation.org** website. All SOMA 02 attendees should be receiving this Journal of Special Operations Medicine - and if you're not, contact Russ.

Tactical EMS 2003 Conference and Exposition

The International Tactical EMS Association (ITEMS) is proud to announce that its fifth annual conference and exposition, "Tactical EMS 2003," will be held October 15th - 18th at the Hilton Dallas Lincoln Centre in Dallas, Texas, United States.

Given the global "war on terrorism," the recent emphasis on homeland security, and the similarities between TEMS providers and military special operations medical personnel, the theme for "Tactical EMS 2003" is "The Shield and the Sword Learning From Each Other."

By bringing together some of the world's most experienced SWAT officers, military special operations personnel and tactical medical providers, this timely, informative, and exciting event will offer its attendees educational and training opportunities that will position them on the "cutting edge" of tactical medicine and enhance their ability to "bring good medicine to bad places".

To help ITEMS accomplish this mission, the National Tactical Officers Association (NTOA) and Special Operations Medical Association (SOMA) have graciously agreed to co-sponsor "Tactical EMS 2003."

Together, these three outstanding organizations will demonstrate that communication, cooperation, and collaboration can "blur the lines" that have existed between military and civilian special operations medicine for over 30 years and save the lives of countless law enforcement officers, military personnel and the citizens they so proudly serve and protect.

Although most "Tactical EMS 2003" attendees will be emergency medical providers, many others will be non-medically trained local, state/provincial, federal, or military law enforcement officers and/or special operations personnel.

On Wednesday, October 15th, "Tactical EMS 2003" will commence with the 3rd Annual "Medic Up" Competition. As the world's only TEMS-specific competition, this exciting event will feature numerous four-member tactical teams and two-member medical teams from throughout the world competing in four tactically and medically challenging events. Competitors will be judged in individual events and the overall competition with all being evaluated on how well they can manage the "blood in the mud."

On Thursday, October 16th, the six "Warrior Healer" training programs will be offered. Led by some of the world's most experienced special operations personnel, the "Tactical EMS 2003" cadre will present:

How to Develop and Maintain a Tactical EMS Program
Commanders Course
Medical Directors Course
Immediate Action Drills for the Operator
Medical Immediate Action Drills for the Operator
Medical Immediate Action Drills for the Tactical Medical Provider

On Friday and Saturday, October 17th and 18th, a general session conference will take place. This conference will include 15 hours of educational presentations/case studies and as many as 40 exhibits displaying a wide variety of emergency medical and law enforcement products, services, and training programs. The general session conference will include the following presentations:

Tactical EMS: How it Reduces a Law Enforcement Agency's Liability Posture
Operational Aspects in the Contaminated Environment
The Tactical Medical Provider's Role in Crisis Negotiation
"K-9 Down, Medic Up" - Veterinary Medicine for the Tactical Medical Provider
Hemorrhage Control in the 21st Century: Remembering the Old and Learning the New
After Action Reporting and Records Management
Medical Considerations in the Dignitary Protection Environment
Medical Management of the Less Lethal Casualty

Mass Casualties in a Training Environment: A Case Study
Nutrition and Physical Training: Learning from the United States Navy SEALs
Planning for Casualty Rescue
Anticipating, Preparing for and Surviving a Line-of-Duty Death: A Case Study

On Friday afternoon, October 17th, an awards luncheon will take place. The United States Surgeon General, Vice Admiral Richard H. Carmona, has been invited to once again be the keynote presenter and he'll join numerous other dignitaries in presenting awards and commendations to tactical medical providers who've had a positive impact on training and/or special operations. In some of these cases, those whose lives have been saved by tactical medical providers will be inducted into the association's "Survivors Club." Later that day, representatives from the United States Special Operations Command and the United States Marine Corps' First Marine Division will provide extraordinarily detailed accounts of military medicine in Afghanistan and Iraq.

"Tactical EMS 2003" presentations will be submitted to the American Medical Association (AMA), American College of Emergency Physicians (ACEP), and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) for continuing medical education credit.

For additional information on this event, please contact Jim Etzin, Executive Director of the International Tactical EMS Association, at (248) 476-9077. You may also visit the association's web site at www.TEMS.org

The Enlisted Heritage Hall To Honor CMSgt Wayne Fisk

Plans are well underway to name the fitness and social park on the grounds of the Enlisted Heritage Hall at Maxwell AFB, Gunter Annex in honor of Chief Master Sergeant Wayne Fisk, USAF (Ret). Fisk Park will be used by hundreds of personnel on a daily basis who will be inspired by the achievements of a true American hero, and, by extension the Jolly Greens and combat SAR. Most in the rescue community know of Chief Fisk's exemplary career in pararescue serving multiple tours in SEA, as a Son Tay Raider, and as the last man off of Koh Tang Island during the battle for the Mayaguez. This is a well deserved honor for one of our own. A large pedestal and bronze plaque will be placed at the entrance to the park. Funds are needed to support the project and I'm asking every member to contribute generously to this most appropriate honor.

CMSgt Wayne L. Fisk, was a member of the USAF primary recovery team for Apollo space missions VIII, IX, and X, served four tours of duty in SEA as a PJ, and was involved in the attempted rescue of POWs thought to be held at the Son Tay prison camp, earning him his first Silver Star 21 Nov 70.

He earned a second Silver Star 15 May 75 for participation in the recovery of the merchant ship Mayaguez seized by Cambodian forces, the rescue of the crew, and the extraction of US Marines from the island of Koh Tang. As the last man off the island after returning enemy fire, he probably became the last American serviceman to engage in ground combat with Communist forces in the Vietnam War.

The Silver Star is the third highest military award for heroism. The Silver Star may be awarded to any person who, while serving in any capacity with the Armed Forces of the United States, is cited for gallantry in action (1) against an enemy of the United States; (2) while engaged in military operations involving conflict with an opposing foreign force; or, (3) while serving with friendly foreign forces engaged in armed conflict against an opposing armed force in which the United States is not a belligerent party.

Editor's Note: Wayne Fisk is a big supporter and contributor of this journal. It is our honor to recognize this tribute to such a well deserving individual. mdd

David Hammer, MD

All of us, be we physicians, PAs, NPs, paramedics, nurses, or whatever, have a personal obligation to our patients and a professional obligation to our respective professional organizations to maintain competency and currency in our credentials. Most recently I was faced with recertification in Family Practice and sat the exam under the American Board of Family Physicians. Preparation included CME every year to a minimum of 50 hours and personal study over the past several months. One of the potentials of this journal is to offer CME to the readers and the staff works hard to get meaningful articles and to get them "blessed" by our CME authority (the Uniformed Services University of Health Sciences). What we need from the readers is input that this effort has value to them so I am appealing for your assistance.

The following Medical Quiz is offered with a few of the sample questions I came across during my board preparation, and I offer them in the hope they will stimulate you respond to the JSOM staff as to the value of CME in this journal. We have the potential to get relevant articles and ask similar questions with explanations and answers and then award CME for the effort.

1. A 36 y/o mother of 2 children comes to the clinic because of a 3-week history of persistent coughing. She had the usual upper respiratory prodrome and symptoms, but she notes persistent nocturnal coughing, dyspnea during the attack, some post-cough vomiting, and a tingling sensation in her throat. She has no fever nor skin eruption and her clinical findings are normal. Her kids have not been sick, but her husband also has experienced nocturnal coughing. This is most consistent with:

A. Subacute viral pneumonia
B. Hiatal hernia with reflux esophagitis
C. Pertusses infection
D. Respiratory syncytial virus infection
E. Postinfections tussive syndrome

2. Following transfusion of packed red cells, the earliest time that a reliable hemoglobin determination can be made is:

A. 15 minutes
B. 2 hours
C. 6 hours
D. 12 hours
E. 24 hours

3. Which of the following drugs inhibits platelet function for the life of the platelet?

A. Aspirin
B. Ibuprofen
C. Dipyridamole (Persantine)
D. Ticlopidine (Ticlid)
E. Warfarin (Coumadin)

ANSWERS

1. ANSWER C---*Bordetella pertusses* is becoming increasingly recognized as a cause of cough in adults. Affected individuals often have prolonged paroxysmal attacks that are worse at night, dyspnea with the attack and a tingling sensation in the throat. A cough lasting 14 days or more is highly suspicious. Adults may not exhibit the classic "whoop." The clinical picture does not fit the other responses.

2. ANSWER A---It is important to determine the effect of blood transfusions in order to plan timely continued therapy. A hemoglobin level drawn 15 minutes after the transfusion is just as reliable for determining the effect as one drawn later.

3. ANSWER A---A number of drugs inhibit platelet function, but aspirin is the only effective drug that interferes with platelet aggregation for the life of the platelet. It does this by permanently acetylating the platelet enzyme cyclooxygenase, thus inhibiting prostaglandin synthesis.

dhammer

Photo Gallery

Operation Joint Guardian, Kosovo, 1-26 BAS, Gnjilane Aug 1999. Indirect fire and blast victim. This Albanian man was traveling on a bus when it came under RPG attack by Serb irregulars near Silobo. CPT Mel Bradley is examining the casualty at the BAS. Metal and glass shrapnel riddled this man's upper back and left face. Part of the left tragus was missing as well as his left TM.
Photo courtesy of Melville D. Bradley, MD

Operation Joint Guardian, Kosovo, 1-26 BAS LZ, Gnjilane Sep 1999. Elderly Albanian man mine casualty stabilized at BAS awaiting dustoff to Camp Bondsteel. Casualty's son is present. SSGT Morgan and CPT Steve Johnston are attending.
Photo courtesy of Melville D. Bradley, MD

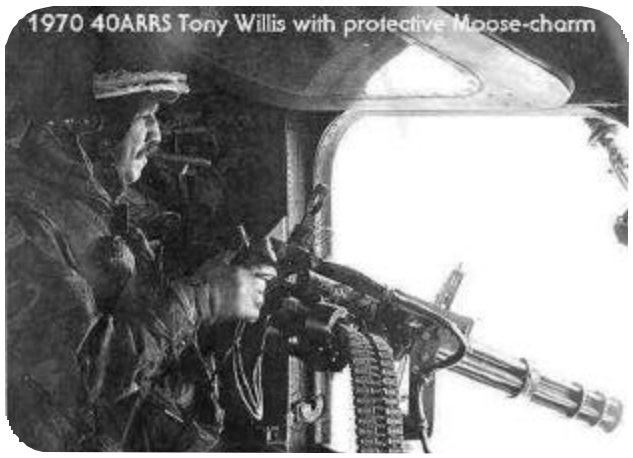
Operation Joint Guardian, Kosovo, 1-26 BAS LZ, Gnjilane Sep 1999. Elderly Albanian man mine casualty stabilized at BAS awaiting dustoff to Camp Bondsteel. SSGT Morgan and CPT Steve Johnston are attending. Note pallor from much blood loss.
Photo courtesy of Melville D. Bradley, MD

COL Warner Anderson of the 352 Civil Affairs Brigade explains what to do with pharmaceutical drugs that are incorrectly labled with the wrong date during a meeting with public and private doctors at the Ministry of Health building in Baghdad, Iraq, Aug. 2, 2003 in support of Operation Iraqi Freedom. *(U.S. Army photo by Spc. MatthewWillingham) (Released)*

While on patrol with ODA 072, pararescueman ROMAD couldn't shake the uneasy feeling that he was being watched. But no worries, he knew his new set of high tech Air Force BDUs made him virtually invisible to the enemy.

In Memory

Lorenzo "Tony" E. Willis, Jr
USAF, TSgt (Ret)
Pararescueman

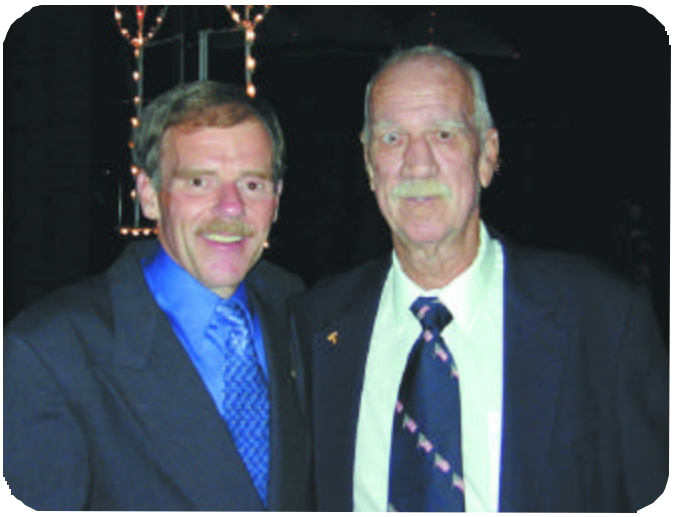


On 28 May 2003, the Special Operations Community suffered the loss of one of its earliest and most enthusiastic warriors. Lorenzo "Tony" Willis passed away after a long bout with cancer. Perhaps best known within the SOF community for his participation in the rescue of *Kingfish 01* (see "*Thanks For My Everything*", JSOM, Volume 2, Edition 2/Spring 02), Tony was a warrior to the end.

Originally from Vincennes, IN, he began his military career as a US Army infantryman in 1946. By 1948, though, the newly created US Air Force won him over and put him into the earliest form of what has evolved into today's Pararescue corps. As a PJ, he served at some nineteen assignments in the US, Africa, and Asia. The variety of early aircraft on which he served in support of rescue missions reads like a journey through the Air & Space Museum: A-10 *Catalina,* SA-16 *Albatross,* C-47 *Gooney Bird,* C-119 *Flying Boxcar,* H-21 *Flying Banana,* HH-3 (original) *Jolly Green*. As a Master Parachutist, Tony deployed on such seemingly ancient parachute systems as the E-1, T-5, T-7, and T-10. As a combatant, he served three tours of duty in Southeast Asia, participating on numerous CSAR missions.

Due to the diversified mission of Pararescue, Tony found himself in unique and historic situations and locations. As the US launched its program for conquest of space, he was a member of NASA's earliest spacecraft recovery programs MERCURY, GEMINI, and APOLLO. In both the MERCURY and GEMINI programs, he and PJ teams were sent to the farthest reaches of the globe to cover a great range of possible splash-down locations. Although the APOLLO program reduced some of the more distant travel requirements, he still found himself at various far-flung locations throughout the world.

Tony retired from the USAF in June 1973.



Jim DeVoss (left) with Tony Willis (right) at
SOMA Mess Night 2001.

In memory to Tony Willis and PJs come and gone.

At SOMA 01, I had an uncommon opportunity and privilege to invite an old friend and USAF Thud (F-104) pilot to tell his story of rescue by the folks from the Aerospace Rescue and Recovery Service. Air Force Lt (r) Jim DeVoss and I went to undergrad college together and after graduation he entered pilot training in the Air Force. He was shot down over North Vietnam and sustained significant injuries. His future wasn't looking too bright until he saw an Air Force Jolly Green Helicopter lower a PJ, TSgt (r) Tony Willis, down into a bamboo patch and retrieve him to safety. Back at the medical compound, Jim went his way into the medical system for some 8 months of mending and recuperating, and ultimately medical retirement. Tony went to "Miller-time" then reconstitution and made ready for the next “save.” In those days there wasn't much time or desire to celebrate your successes; there was just more to do.

Jim went on in the civilian world marrying and having 2 kids who both are PhDs in very significant fields. He became successful in business and for years was a motivational speaker for an international company and he used his experiences to the benefit of many. He also had a “hollow spot” for he never was able to thank the guys who risked their butts to come get him out of the bamboo, so he took it upon himself to thank the nation for his “second chance” and always remembered there were guys out there like Tony Willis that took seriously the motto “That Others May Live.”

At the SOMA meeting we secretly moved Tony into the audience and after Mr. DeVoss’ talk I took the microphone and ask Tony to stand. I then asked him if he was the guy that came down the hoist and pulled Jim back to the safety of the Jolly Green. His response was simply “Yessir, I'm the guy!” These two warriors embraced and there was a visible bond that they shared now, but from over 30 years ago. They recognized each other immediately. I will always be thankful that I could rejoin these two; it is a highlight of my career.

This past year we lost Tony, but in his passing it should be mentioned that this PJ legend has nine more “saves” out there that he never got to meet later. But he was “a PJ (and) it was (his) duty as a Pararescueman to save a life and to aid the injured.” God Bless Tony Willis. The pride we share in his accomplishments will always be reflected in the eyes of the families and in the accomplishments of those men he snatched out of the jungles of Vietnam. Hooah!

dhammer

Dedication

Sgt 1st Class Peter P. Tycz II

Army Sgt 1st Class Peter P. Tycz II was among three soldiers killed in the crash of a military plane in Afghanistan. Tycz, assigned to the Army's 3rd Special Forces Group (Airborne) based in Fort Bragg, NC, was the medic aboard the Air Force MC-130H (a version of the C-130 cargo plane that is designed for special forces missions) that crashed and caught fire after takeoff southwest of Gardez.

Tycz's mother received an e-mail message that was in response to a *mother's prayer* she sent her 32-year-old son last fall, when his deployment to the Afghanistan war zone appeared inevitable. The words of his message resonate: *Know this, I do what I do not just because I like it, but to ensure all of my family are safe from whatever treads on us!*

What became an enviable military career had a rather inauspicious beginning. He signed up after graduating from Tonawanda High School in 1988. He had three years in, then a few months out, then off to Operation Desert Storm as an Army reservist. In 1996, he began training for the Special Forces - the famed Green Berets. Special Forces medics are much better trained and more skilled than the typical military medic, since they accompany Special Forces on their often-dangerous missions. "They're emergency medical technicians, highly trained in combat lifesaving skills," said Maj. Robert Gowan, a Special Forces spokesman at Fort Bragg. "They're almost like trauma surgeons. If you get wounded, you want one by your side."

Due to previous deployments to Africa, Bosnia, Central and South America, he learned to speak Spanish, French, German, and Bosnian. Gowan, the Special Forces spokesman, said a majority of the 3rd Special Forces was deployed to Afghanistan to relieve the 5th Special Forces.

Besides his five daughters that range in age from 1 to 9, Tycz also leaves behind his wife, Tammy.

****

De Oppresso Liber - "To Free the Oppressed."

Special Forces Aidman's Pledge

As a Special Forces Aidman of the United States Army, I pledge my honor and my conscience to the service of my country and the art of medicine. I recognize the responsibility which may be placed upon me for the health, and even lives, of others. I confess the limitation of my skill and knowledge in the caring for the sick and injured. I promise to follow the maxim "Primum non- nocere" ("First, thou shalt do no harm"), and to seek the assistance of more competent medical authority whenever it is available. These confidences which come to me in my attendance on the sick, I will treat as secret. I recognize my responsibility to impart to others who seek the service of medicine such knowledge of its art and practice as I possess, and I resolve to continue to improve my capability to this purpose. As an American soldier, I have determined ultimately to place above all considerations of self the mission of my team and the cause of my nation.

Pararescue Creed

I was that which others did not want to be. I went where others feared to go, and did what others failed to do. I asked nothing from those who gave nothing, And reluctantly accepted the thought of eternal lonliess ....should I fail. I have seen the face of terror; felt the stinging cold of fear, and enjoyed the sweet taste of a moment's love. I have cried, pained and hoped...but most of all, I have lived times others would say best forgotten. Always I will be able to say, that I was proud of what I was: a P.J. It is my duty as a Pararescueman to save a life and to aid the injured. I will perform my assigned duties quickly and efficiently, placing these duties before personal desires and comforts.

These things I do,
"That Others May Live."

Navy Poem

I'm the one called "Doc"...I shall not walk in your footsteps, but I will walk by your side. I shall not walk in your image, I've earned my own title of pride. We've answered the call together, on sea and foreign land. When the cry for help was given, I've been there right at hand. Whether I am on the ocean or in the jungle wearing greens, Giving aid to my fellow man, be it Sailors or Marines. So the next time you see a corpsman and you think of calling him "squid", think of the job he's doing as those before him did. And if you ever have to go out there and your life is on the block, Look at the one right next to you... I'm the one called "Doc".

~ Harry D. Penny, Jr.

UNITED STATES SPECIAL OPERATIONS COMMAND
ATTN: SOCS-SG
7701 Tampa Point Blvd.
MacDill AFB, FL 33621-5323
OFFICIAL BUSINESS