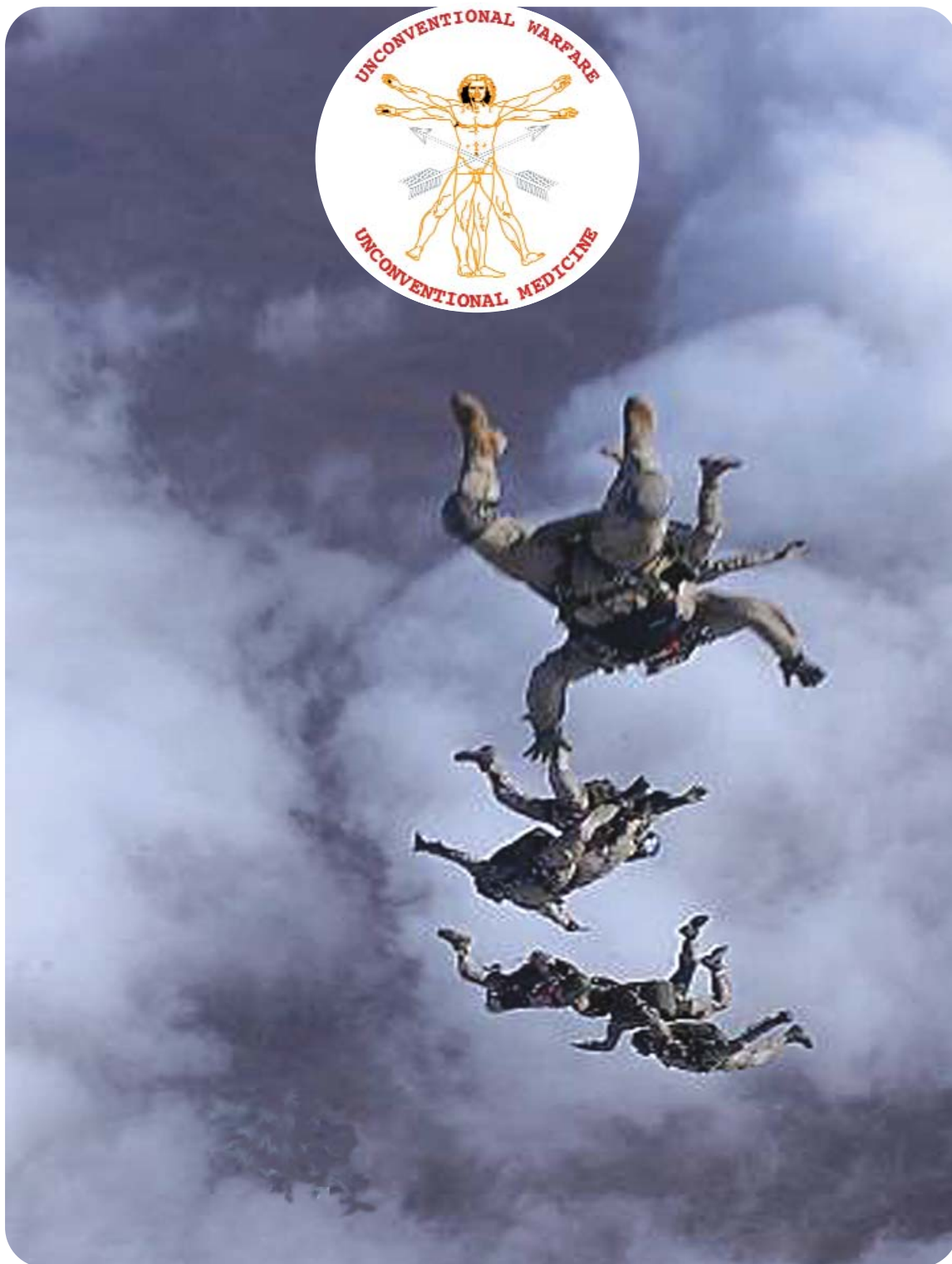


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Journal of Special Operations Medicine

A Peer Reviewed Journal for SOF Medical Professionals



Dedicated to the Indomitable Spirit & Sacrifices of the SOF Medic

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COVER

“That others may live.” Pararescuemen jump from a C-130 for a High Altitude Low Opening (HALO) free fall drop from 12,999 feet at an undisclosed location, in support of Operation Enduring Freedom. Official Photo by: SSgt Jeremy Lock.



From the Editor

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 not a product of the *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. We have applied for an International Standard Serial Number (ISSN) with the Library of Congress and we're checking into selection for Index Medicus/MEDLINE. 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.

There are several ways for you to obtain the Journal of Special Operations Medicine (JSOM). USSOCOM-SG distributes the JSOM to all our SOF units and our active editorial consultants. We can also email you the JSOM PDF; if you would like to be added to the PDF list please send your request to me at JSOM@socom.mil. However, keep in mind that the PDF ranges 3-4MB and is rejected due to size by most AOL, Yahoo, and Hotmail accounts. Make sure the address you give me can handle it.

SOMA members receive the JSOM as part of membership. Please note, if you are a SOMA member and are not receiving the subscription, you can contact SOMA through www.specialoperationsmedicalassociation.org or contact MSG Russell Justice at justicer@soc.mil. SOMA provides a very valuable means of obtaining CME, as well as an annual gathering of SOF medical folks to share current issues.

For JSOM readers who do not fall into either of the above mentioned categories, we have arranged for the JSOM to be available as a paid subscription from the Superintendent of Documents, US Government Printing Office (GPO), for only \$30 a year.

Don't forget, we are also online through the Joint Special Operations University to all DOD employees at <http://www.hurlburt.af.mil/jsou>. On the left you will have several tabs; you must first "log-in" and then go to "publications." Scroll down until you get to the JSOM and click on the picture. From this site, you can link straight to the Government Printing Office to subscribe to the JSOM. We are working with the JSOU to have a SOCOM-SG medical site. CAPT Butler will address this in the Winter Ed of the JSOM and we will keep you posted as that progresses.

We are ending our fourth year of publication and continue to need your article submissions and photos. They are what keep 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 remains the tool that spans all the SOF services and shares medical information and experiences unique to this community. The JSOM continues to survive because of the generous and time-consuming contributions sent in by physicians and SOF medics, both current and retired, as well as researchers. We need your help! Get published in a peer-review journal NOW! See General Rules of Submission in the back of this journal. 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, orthopedic injuries, infectious disease processes, and/or environment and wilderness medicine. More than anything, we need you to write CME articles. Help keep each other current in your re-licensure requirements. Don't forget to send 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... send them our way. Our E-mail is: JSOM@socom.mil.

Don't forget to do your CMEs!!!! The JSOM's CMEs are for our SF medics, PJs, and SEAL corpsmen as well as physicians, PAs, and nurses. We offer them to you in coordination with the Uniformed Services University of Health Sciences (USUHS).

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

Maj Michelle DuGuay

From the Surgeon



Frank Butler, MD
CAPT, USN
HQ USSOCOM Command Surgeon

Greetings from Hurricane Alley! Mother Nature seems to be siding with the terrorists lately as USSOCOM has evacuated twice for hurricanes and ridden another one out.

Welcome

Navy LT Shawn Wood and First Lieutenant Dawn Paul have reported for duty at USSOCOM. LT Wood comes to us from N-931 (the Medical Requirements office on the staff of the Chief of Naval Operations). He has 8 years of experience as a corpsman with the Marines and his specialty is Plans, Operations, and Medical Intelligence. LT Wood will be working with our Ops Planning Cell. 1LT Paul is an activated Army reservist who has been mobilized to help with the deployed health surveillance program. She will be helping to update the SOCOM Health Surveillance Database. Welcome to them both – we look forward to having them in the office and appreciate the great work they are already doing.

Making Things Happen in SOF Medicine: How to Energize the System

Most SOF operators are action guys and when they see something they think could be better about the way we operate, they're usually aggressive about wanting to change it. For the rest of the column, I'm going to cover a few of the ways that YOU can energize the system to turn your good ideas into real improvements in SOF medicine.

Chain of Command: For medical equipment and training while not deployed, the first place to go with new requirements is through your chain of command. Be sure that you have clearly defined the requirement, outlined why the command needs it, and done all of the costing homework. Even if your proposal is a solid one, be prepared to have to work a little to package it and sell it to the commander, since medical issues are generally out of his area of expertise. For combat-related items, some SOF units have done well at obtaining funding from the Global War on Terrorism supplements to support medical requirements.

The SOF Special Operations Combat Medic (SOCM) Requirements Board: If you have a new technique or skill that you believe should be added to the training course that SOF combat medics undergo – the SOCM course – the way to make this happen is to bring it up to the USSOCOM SOCM Requirements Board. This board is currently chaired by MSG Sam Rodriguez from USASOC and is comprised entirely of SOF combat medics, physicians, and physician assistants. If you are not sure who your representative on this board is, call CPT Steve Briggs (813-828-5065) or SMSgt Bob McCumsey (813-828-5043) to find out. The Requirements Board evaluates proposed additions or deletions to the SOCM Critical Task List. The recommendations are then presented to the Board of Regents for review.

The Biomedical Initiatives Steering Committee (BISC): Let's say you are a SOF combat medic or operator and you have a need for new physiology information to help you accomplish your mission. An example would be developing a way to take a team that has been at a relatively low altitude and enabling them to react to a time-sensitive target at 14,000 feet without getting altitude sickness. There are some ways to inves-

tigate this that could be studied in the DOD's physiology research laboratories. This would fall under the charter of the USSOCOM BISC. Entry into the BISC process is accomplished through the component surgeons. A letter from the Commanding Officer of your team, battalion, or group to your component surgeon will provide the documentation they need to get the process rolling. An altitude study of the type described is actually underway in response to an operational need to respond quickly to time-sensitive targets in the high ground along the Afghanistan-Pakistan border.

The Committee on Tactical Combat Casualty Care (COTCCC): This committee was started by USSOCOM in 2001 and is currently funded by the Navy Surgeon General's office. The COTCCC has representatives from the Army, Navy, Air Force, Marine Corps, and Coast Guard and includes shooters, surgeons, and scientists who all collaborate very effectively to update the TCCC guidelines. Proposed innovations in battlefield trauma care such as new resuscitation fluids or hemostatic agents are evaluated by the committee and the finalized recommendations published in each new edition of the Prehospital Trauma Life Support Manual. A good recent example of how to engage with the COTCCC is the paper that was published on the use of fentanyl lozenges to provide rapid-onset analgesia for traumatic injuries that occur in a tactical setting without having to start an IV. This paper was published in *Annals of Emergency Medicine* by LTC Russ Kotwal and his co-authors (and will soon be re-published in the JSOM). The concept was presented to and approved by the COTCCC and should be included in the updated guidelines published in the PHTLS Manual in 2005.

The Joint Medical Enlisted Advisory Council (JMEAC): This group is designed to be the ears of the USSOCOM Command Surgeon's office for any issues related to combat medic pay, retention, force structure, training, or medical equipment. Issues brought to this board are screened by the senior medical enlisted members from all USSOCOM components and forwarded as appropriate by Master Chief Gary Welt. Anyone who knows Master Chief Welt will attest that he is a powerful and well-respected voice for the SOF combat medic.

Combat Mission Needs Statement (CMNS): This tool is used to address urgent and compelling needs such as combat survivability deficiencies and critical mission capability shortfalls for SOF units conducting combat or contingency operations (USSOCOM Directive 71-4). The directive specifically mentions items that would improve the survivability of the operator, so medical equipment falls within this scope of the guidelines. The unit originating the CMNS forwards it to the theater Special Operations Commander, who forwards it through the USSOCOM component and then to USSOCOM. Approval authority for validation of a CMNS is the Deputy Commander. A Rapid Response Team is formed at USSOCOM to expedite the procurement of the item(s) requested. If you are operating downrange and you don't have all the medical equipment that you need to take care of your team, this is the best way to get it.

Request for Forces (RFF): If your in-theater medical needs are personnel rather than materiel in nature, the way to proceed is to use the chain of command to mobilize assets within your SOF command structure to fill the need. If you need medical personnel who are not organic to your unit (an example would be a Forward Surgical Team for combat operations in an isolated area), you can proceed with a Request for Forces. This document goes through your Task Force to the Theater Special Operations Commander, who forwards it to the Theater Commander. If it is approved at this level, it goes to the Joint Chiefs of Staff so that assets can be identified and mobilized.

Using one (or more) of the approaches mentioned above, you should be able to find a way to turn your good ideas into reality. Thanks for all that you do and let us here at Headquarters know what we can do to help.

God bless you and God bless America –





SENIOR ENLISTED MEDICAL ADVISOR (SEMA)
HMCM GARY WELT



As we continue to win the day by day battles around the world on the Global War on Terrorism, we here at the USSOCOM Command Surgeon's office continue the constant battle of challenges facing the medical support, supply, training, and education of the entire Special Operations medical force. I have jumped in the saddle of responsibility to only realize that there are many "saddle sores" yet to come. However, I do remember that my primary responsibility is to you, the ground Soldier, Sailor, or Airman who consistently, without hesitation, goes forward to once again cheat death at its own door by saving the lives of combatants, contractors, and civilians alike with the dedication and love for medicine beyond reproach. It is by your very actions that I strive to ensure that you have been allowed every opportunity to succeed in battle, in garrison, and on the home front.

As I enter my second article in the JSOM, I feel compelled to let the force know what great strides we as a Total Medical Force are making. The single most visible impact that the office has made is to ensure that the individual operator has a warmer and fuzzier feeling of medical competence as the team departs for combat. This is currently being accomplished by an initiative sponsored by the Biomedical Initiative Steering Committee (BISC) and being implemented by the US Army Institute of Surgical Research (USAISR) in San Antonio, TX. SFC Dominique Greydanus has spent an inordinate amount of time to ensure that ALL SF teams, SEAL platoons, and PJ squadrons have this very important "just-in-time" training prior to deployment. To date, there have been several Special Operations units who have received the official training as well as the needed new equipment recommended by the CoTCCC. So far the feedback has been outstanding and the training continues with several more SO units scheduled in the near future. SFC Greydanus and his team are only limited by scheduling conflicts. I encourage all the SOF units to get in touch with him and schedule your team training. For further information, please contact him directly at USAISR via e-mail at: Dominique.Greydanus@CEN.AMEDD.ARMY.MIL. Don't miss out on this great training opportunity at NO COST TO YOU except three days of your time. Your engineer or communicator just may save your life!

Next up on the agenda is the happenings of the Joint Medical Enlisted Advisory Council over the past quarter. The JMEAC held a meeting at Hurlburt Field, FL sponsored by AFSOC in late July. In attendance were medical representatives from all of the components in SOCOM as well as individual operators from AFSOC. Some of the many topics discussed include:

- The new/revised SOCM Critical Task List
- Definition of the "Joint Inter-Operable Medic"
- Pararescueman (PJ) training at Kirtland AFB, NM
- SOF operator medical training
- Inclusion of the JSOMTC SEMA as a voting member of the JMEAC
- Deletion of the "paramedic" name for SOF
- Utilization of the B-MIST PDA
- Future JMEAC meetings and visits
- The SOF Operator "Open Forum" discussion.

For a more detailed and in depth description of the minutes of the meeting, I highly encourage you to get in touch with your component SEMA who can forward the minutes to you directly. One of the most enlightening parts of the meeting was the “Operators Open Forum.” The JMEAC is extremely interested in the ground truth from the operational units and the individual operator. The open forum provides the operator with an opportunity to directly address the JMEAC on issues they feel are not being addressed through the normal chain of command and get some immediate feedback on their ideas, comments, and concerns. I speak for the entire JMEAC when I say that the operators’ input from the 16th OSS was not only heard and appreciated but heard and carried forward to the USSOCOM Command Surgeon. This truly is your direct line to the big man.

Our next adventure towards the latter part of September was an extremely informative trip out to the Parar escue schoolhouse at Kirtland AFB, NM. Chief Master Sergeant Evans, the Commandant of the school, hosted a short meeting to give the JMEAC an inside view of what the PJ students are learning as well as a complete tour of their facility. They have many plans for their schoolhouse in the future and we here at SOCOM are working with AFSOC and AETC to ensure that the PJs continue to produce the professional and competent medic they have in the past. We then boarded planes and headed for what was to be the same type of meeting at the JSOMTC, Ft Bragg, NC, to talk with the instructors and staff there. Unfortunately, this particular meeting was interrupted and we were unable to accomplish our intended mission. We did however manage to salvage a few hours to discuss some important issues pertaining to the recertification program at USASOC. I assure you the JMEAC has nothing but the best of interests when dealing and representing the SOF medical operator. It is through you that we get our strength, guidance, and perseverance to represent you as the medical professionals that you are.

Until next issue, I bid you good luck, fair winds, and following seas. I will keep you all in my thoughts as you continue to do what you do best! Keep your powder dry, your head down, your mind clear, your bag at the ready, and try to stay away from the pointy end of the bullet! I leave you with this quote:

**“ETERNAL VIGILANCE IS THE PRICE OF LIBERTY”
Thomas Jefferson**



Meet Your JSOM Staff

EXECUTIVE EDITOR

Frank K Butler, MD
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CAPT Frank Butler graduated from Basic Underwater Demolition/SEAL training in 1972 as a member of Class 64 and subsequently served as a platoon commander in both Underwater Demolition Team Twelve and SEAL Team One. After attending medical school at the Medical College of Georgia, he did his internship in Family Practice at Naval Hospital Jacksonville. CAPT Butler spent five years as a Diving Medical Research officer at the Navy Experimental Diving Unit in Panama City, where he helped to develop many of the diving techniques and procedures used by the Navy SEAL teams today. He then did a residency in Ophthalmology at the National

Naval Medical Center in Bethesda, where he was Chief Resident in 1989. CAPT Butler was then assigned to the Naval Hospital Pensacola where he was Chief of Ophthalmology from 1989 to 1994. He assumed the duties of Director of Biomedical Research for the Naval Special Warfare Command in 1989 as well. He was transferred to his current position as Command Surgeon, US Special Operations Command, in March 2004.

MANAGING 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 Masters in Business Administration/Management. Her career includes being a flight nurse in both the military and private sector, 15 years of clinical experience in emergency and critical care nursing as well as 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.

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USASOC



Rocky Farr, MD
COL, USA
Command Surgeon



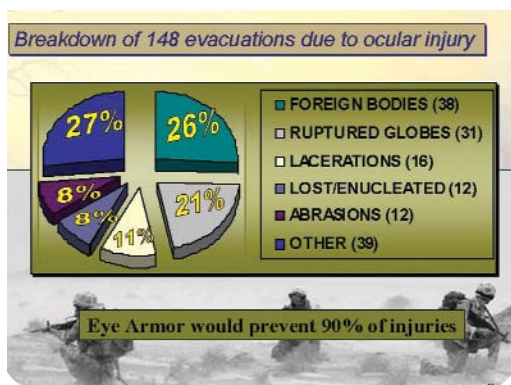
The USASOC Surgeon's Conference and SOMA are fast approaching in December in Tampa. I hope to see as many Soldiers there as operational tempo permits. Times are busy, and the JSOMTC is busting at the seams with students and putting out an increased number of great graduates. I would like to turn the rest of this column over to LTC Frank J. Newton, MD, FS, Chief, Medical Operations and Training, Office of the Command Surgeon:

“The object of war is not to die for your country, but to make the other bastard die for his.”

George Patton

The modern battlefield has become more lethal. Body armor and vehicle upgrades have increased our survivability. Improvements in our resuscitative skills and evacuation to forward surgical care have saved many of our wounded comrades from what would have been a mortal injury.

Eye injuries, which previously would have been incidental to a fatal event, are becoming more common. Modern warfare has produced progressively smaller fragmentation effects from munitions. It is these small fragments, and the ubiquitous improvised explosive devices (IEDs), which pose significant risks to our Soldiers' eyes. Lessons learned from conventional forces in Operation Iraqi Freedom have shown that we can expect 16% of combat casualties will receive eye injuries.



Approved ballistic protective eyewear has been developed and should be utilized by SOF to minimize risk of eye injury. Standard issue eyeglasses are no substitute for these protective lenses and may, themselves, increase the injury. It is estimated that over 90% of eye injuries can be prevented with ballistic-rated eyewear!

Authorized Ballistic Protective Eyewear Systems				
Protective Eyewear System	Prescription Capable	UVA/UVB Protective	Laser Protective	Cost
Ballistic Laser Protective Spectacles (BLPS)	YES (Lens Carrier)	YES	YES	\$676125
Special Protective Eyewear Cylindrical System (SPECS)	NO	YES	YES	\$59675
Saw, Wind and Dust Goggles (SWDG)	YES (Over Eyewear)	YES	YES	\$38684
Wiley-X SG-1 Spectacle System	NO	YES	NO	\$84
Eye Safety System (ESS) Land Operations Goggle	YES (Over Eyewear)	YES	NO	\$34
Eye Safety System (ESS) Low Profile NVG Goggle	NO	YES	NO	\$61
Dux-X Protective Eyewear	NO	YES	NO	\$13

The following standard issue and alternative commercial lenses meet ballistic protection specifications. Standard type eye armor includes Ballistic Laser Protective Spectacles (BLPS), which are intended for Soldiers who require prescription glasses for duty. Special Protective Eyewear Cylindrical System (SPECS) can be used when optical correction is not required. Commercial eyewear that provide adequate protection are the Wiley-X SG-1, the Eye Safety System (ESS) Land Operations Goggle, the Eye Safety System (ESS) Low Profile NVG Goggle, and the UVEX XC Spectacle. Only the BLPS and ESS Land Operations Goggle provide a vision correction capability. The BLPS use a prescription lens carrier and the ESS Goggle is worn over prescription glasses. Additions to the list in 2004 are the Oakley Goggle and the Oakley S.I. Ballistic Military M Frame. The latter is a military-specific item that meets ballistic testing. It is not available commercially off-the-shelf.

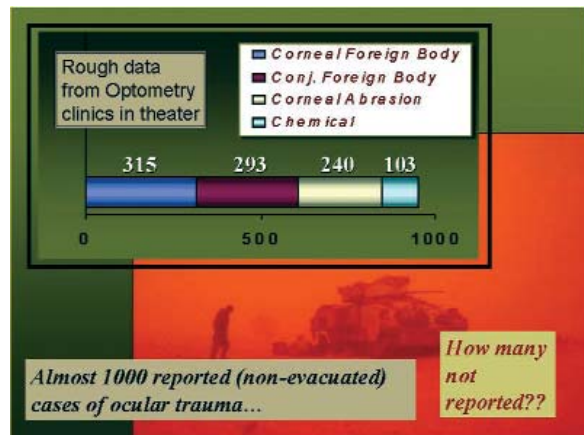
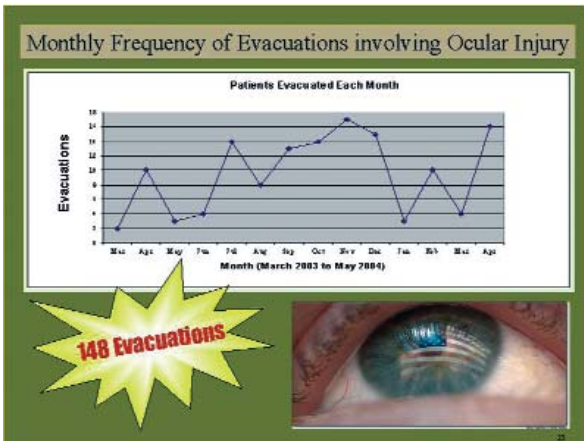
Some lenses that are popular with SOF have failed ballistics testing. These include the Oakley M Frame spectacle.

The following excerpt is a remarkable example of how eye and body armor, along with vehicle upgrades, contributed to the survival of Soldiers in a recent IED attack. All vehicle occupants received relatively minor injuries. CSM Butler, MNC-I, 16 MP BDE, shared the following account:

“I am glad to be here today. As you know my M1114 UAH vehicle was struck by an IED on 8 Sep 04, while traveling on MSR Sword south of CP45 in Baghdad. The blast damaged the left rear quarter panel and tire, started the vehicle on fire, and caused the vehicle to swerve out of control. We then rolled over three times before coming to a rest back on all four wheels. All vehicle occupants received relatively minor injuries.”



The CSM knows the importance of personal protective equipment. He offered the following advice, “All occupants need to wear protective eyewear. Flying debris, shrapnel, and later exploding ammunition were all hazards that threatened our eyesight. Each Soldier in my crew was wearing their Wiley Xsor gunners goggles.”





NAVSPECWARCOM



Edward Woods, MD
CAPT, USN
Command Surgeon



I keep General Colin Powell's leadership primer on my desk top for reference and pull it out regularly to remind myself of what's important. Lesson 1: "Being responsible sometimes means pissing people off." There are many days when I don't get much past the first lesson. For me Lesson 16 is most cogent: "The commander in the field is always right and the rear echelon is wrong, unless proved otherwise." Physicians wrote the book on self-importance and near-sightedness and are probably the worst at getting this backward. How we implement decisions is based more on when we graduated from medical school and completed residency than any other factor. We are taught to believe that we are autonomous. The enlisted operators we serve do not have the luxury of making decisions in the vacuum of formal education and, in reality, neither do military physicians. SEAL corpsmen bring back from the theater the best recommendations and requests for improvement. The best we can do is to act with rat-like cunning to accomplish what is needed medically for our men at their request.

Our very best tools are our eyes and ears. The enlisted corpsmen and medics live the life and death experiences in their daily lives and are our true eyes and ears. They are in many respects the medical commanders in the field. By following their guidance they make our decisions pertinent. The medical officer's job is to find a way that shifts the power and accountability to the folks that are doing the real work down-range while managing the resources and assuring the integrity of the medical system. Are the enlisted men and women adequately trained? Are the physicians, physician assistants, and any other flavor of provider credentialed and privileged to meet their capabilities? Are the supplies available and as state of the art as we can make them?

One of the benefits of Navy medicine is that our medical supply system allows a large degree of flexibility to establish what gets brought to the fight. By using the authorized medical allowance list (AMAL) we are able to break the code on decision-making for medical supplies. During annual meetings we are able to add, delete, and make major changes through a formal vetting process. We also have the supplement AMAL that allows an individual hospital corpsman the flexibility on a continuous basis to request and, upon justification, receive items that are tailored to his mission. Ultimately, many of these items find their ways into the permanent AMAL. Recently, with recommendations through the Army Institute for Surgical Research, we were able to determine the best tourniquet for use based on laboratory evaluation but the real test will be when the operators return and tell us that it works. The best laid plans of mice and men sometime end up on the cutting room floor.

We are jointly engaging in Tactical Combat Casualty Care Training with just-in-time training for our men and hoping that it will make a difference. One life saved or changed forever is worth 100 times the effort that has been put in thus far. Ultimately the best we can do is acknowledge what General Powell eloquently stated, that the commanders in the field are always right and tailor our mission to meet their needs.

For me, the practice of medicine is an act of faith in tools we have been given by our creator. We honor these gifts by using all of them to their fullest.





AFSOC



Dan Wyman, MD
Col, USAF
Command Surgeon



I recently visited Moody AFB and Fort Bragg where I had the privilege of meeting many operators and medics within our SOF and CSAR communities. I would like to thank all those people who took time out of their busy schedules to host me and members of our HQ staff and provide us more insight into the missions of their units. We will definitely use this information to refine and improve medical support to AFSOC operations.

Over the next several months my intentions are to take a hard look at training. This will start with requirements. We need to define which capabilities (knowledge and skill sets) each AFSC (PJ, IDMT, PA, FS) should possess. We need to determine whether there is a difference in capability requirements between our SOF and CSAR medical assets. We will evaluate skill set intersection/overlap between AFSCs...how do our medical assets provide mutual support to one another? Then we need to determine how we assess competency for each capability...what makes someone “mission ready” for any given medical skill set? Also, we must decide how frequently we perform these assessments.

Once we establish the capabilities required for each AFSC to be medically mission ready, we can evaluate training. First we will look at current training. How/when/where/how often is medical training being accomplished and is current training meeting all requirements? Are we providing training in-house or are we “out sourcing” this training (civilian or military)? We will also evaluate other training platforms available to meet our needs. The end result of this process is to ensure that we are delivering appropriate training to provide each AFSC the capabilities they need to accomplish the mission.

After a year at HQ my initial impression is that we are really training hard/often on some skill sets and probably not training frequently enough on others. Also, I believe we do not have a good handle on medical go/no-go qualifications—which demonstrated medical proficiencies are required to make each AFSC mission ready. Finally, I do not think our different AFSCs train enough together. I am not referring to exercises but to actual skill set training, i.e., PJs, IDMTs, PAs, and FSs all training on IVs, cut-downs, and interosseous techniques together. But only through a thorough evaluation of the entire training/medical qualification process will we be able to determine whether or not we are training to requirements. I welcome input from any/all of our great PJs and medics out there. Feel free to call or email with your questions, comments, and/or concerns.

I am excited to announce that MSgt Tom Rich, seasoned pararescueman, is now on staff at HQ. He is assigned to DO but matrixed to SG, and he will provide the vital link for pararescue medical operations between us and the field. MSgt Rich is already working to collect all pararescue medical mission reports so that we can see what’s going on in the field, evaluate medical care provided, review lessons learned, and ensure that all areas of support (policy, training, equipment, etc) are providing our PJs everything they need to execute the mission.

SOMA is right around the corner. Once again we will have a AFSOC breakout prior to the formal meeting. This year it will be two days, 11-12 Dec, (one day just wasn't enough). MSgt Dan Arnold is setting this session up so contact him with your questions or suggestions. I look forward to the great presentations and debate that will occur. I thank you for the truly spectacular care you provide our warriors and their families. Take care and may God Bless the United States!



THE MILITARY TO MILITARY CONNECTION:

COMBATING HIV/AIDS AMONG AFRICAN MILITARIES

Part I – Risk to Regional Stability and Security

Impacts the Military

“When you live next to the cemetery, you cannot weep for everyone”

African Proverb

Kevin Riley, PhD

ABSTRACT

The impact on regional security and stability is affected by many factors and HIV/AIDS is one of the major contributing factors in destabilization. There is also strong evidence that war itself is a factor in the rapid spread of the virus in Africa. Conflict brings economic and social dislocation, including the forced movement of refugees and internally displaced people and resulting loss of livelihoods, separation of families, collapse of health and education services, and dramatically increased instances of rape and prostitution. All this contributes to conditions for the rapid spread of HIV and other infectious diseases.

The recognition of uniformed services as a high-risk population, and the development of active programs to reduce HIV/AIDS transmissions among military populations can significantly improve regional development by reducing the destabilizing effects of this epidemic. Improved and aggressive integration between the United Nations, the United States, and the Department of Defense is needed to affect specific strategic outcomes and regional security goals through sustained programs.

The integration of Special Operations into military-to-military HIV/AIDS training programs is a credible and effective means to achieve advances toward reducing transmissions, and assist in promoting a healthier population to support regional development and security.

AIDS' risk to regional stability and security

In the 21st century the HIV/AIDS pandemic continues to be one of the leading killers and destabilizing influences in Africa. Extending beyond a public health issue, HIV/AIDS has degraded many countries so severely that in countries such as Namibia, the human development index¹ is expected to drop significantly.² According to the United Nations, AIDS has already killed ten times as many people in Sub-Saharan Africa than all the conflicts that have occurred in that region.³ As Secretary-General Kofi Annan asserted in his report on AIDS to the General Assembly special session, “[AIDS] is the most for-

midable development challenge of our time.”⁴ UN Resolution 1308 was the first official declaration of AIDS as a significant “risk to stability and security.” This security risk will not only increase regional destabilization, but could result in increased conflicts. Conflict brings economic and social dislocation, including the forced movement of refugees and internally displaced people, with resulting loss of livelihoods, separation of families, collapse of health and education services, and dramatically increased instances of rape and prostitution. All this contributes to conditions for the rapid spread of HIV and

other infectious diseases. The rapid spread is promoted and reinforced by an increase in local sex industries in response to demand from military units.

Devastating pandemics such as HIV/AIDS significantly increase regional instability through economic impact. High levels of uncertainty pervade any projection of prevalence rates, but one study showed that on average, gross domestic product (GDP) losses across highly infected countries for the period of 2000-2025 could approximate 35% of today's GDP. Even in certain countries where HIV/AIDS prevalence rates could remain low, there always is a risk that HIV prevalence can increase, resulting in considerable unanticipated economic costs.

The analysis shows, however, that governments can institute policies to insure against these risks. The two policies considered in this study (expanding condom use by 30%, and expanding access to clean needles for injecting drug users by 20%), could reduce GDP losses across the nine countries studied (Algeria, Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen) by an average of 19% of today's GDP. The analysis also shows that delaying action will be costly. For instance, waiting for 5 years before intervening could cost an equivalent of 6% of today's GDP.⁵

Military vulnerability

Military units including defense and civil defense personnel are one of the most vulnerable groups for sexually transmitted infections (STIs), mainly due to their work environment, mobility, age, and other facilitating factors.

Among male populations studied, military and police generally report higher levels of HIV/AIDS infection than the national average in many countries. One study revealed that 10% of US Navy personnel contracted an STI during missions in South America, West Africa, and the Mediterranean.⁶ Military personnel, in particular, are at special risk of exposure to STIs, including HIV/AIDS. If a person has contracted an STI, he is up to 50 times more likely to become infected as a result of unprotected sexual intercourse with an HIV-infected person. STI rates among armed forces are generally two to five times higher than in civilian populations; in times of conflict, the difference can be much higher.⁷

Combating HIV/AIDS and STIs among uniformed personnel has grown in significance amid concerns that uniformed personnel performing primary peacekeeping roles may be an unwitting agent

for spread of the virus around the world. In January 2000, the former US Ambassador to the UN, Richard Holbrooke, told the Security Council, "I regret to say, that AIDS is being spread, among other people, by peacekeepers."⁴ Troop-contributing states are responsible for the training and outfitting of the soldiers they make available to the United Nations, and while the United Nations can advise, it cannot dictate to member states about their HIV/AIDS programs.

A lack of data makes it impossible to accurately gauge the severity of the problem. Only a handful of cases have been publicly documented, and the most reliable way to measure the risk — mandatory testing of personnel before and after deployment abroad — is favored by only a few countries.

The concern is justified; the United Nations and the United States are huge movers of young people across borders and between continents. Some come from non-endemic countries for deployment in endemic areas. Others come from endemic countries to non-endemic areas. There is a significant risk to the civilian populations both at home and abroad, and the risk extends to the ability to sustain enough healthy forces for peacekeeping operations.

The risk to peacekeeping operations

Currently there are 49,245 peacekeepers deployed in support of 15 missions worldwide.⁸ As a rule, HIV prevalence data among UN peacekeepers is unknown, mainly because the UN does not require mandatory testing before, during, or after deployment to a peacekeeping mission, and because contributing countries either do not test or do not share test results with the United Nations.⁶ To demonstrate the potential prevalence among peacekeepers, the Center for Disaster and Humanitarian Assistance Medicine (CDHAM) in Bethesda, Maryland, conducted a statistical study of deployed peacekeepers and looked at country of origin, number of forces deployed, contribution category (military observers, civilian police, and troops), and adult HIV prevalence rates. CDHAM calculates that approximately 20% (9,941) were from countries with an HIV/AIDS adult prevalence rate greater than 5%.⁹ This is a 6% increase from a 2001 United States General Accounting Office study, drawn from high prevalence countries, which demonstrated approximately 14% of peacekeepers were infected. Given that HIV/AIDS prevalence is believed to be two-to-five times higher in military than in civilian populations,¹⁰ this suggests that positive rates in these contributing forces may be well over 10%.

If left unchecked, HIV/AIDS will impact the readiness of personnel and compromise national and internal security. Mortality and morbidity reduce total troop strength, deployment strength, and the recruitment pool for enlisted personnel. Turnover in personnel not only creates a loss of continuity of command but increases the costs of recruiting and training replacements. Absenteeism increases and productivity decreases as more people infected with HIV actually become ill.

Uniformed services have an impact outside their own ranks. HIV/AIDS increases regionally during instability. Personnel stationed overseas as peacekeepers or who are part of a military force become infected and bring the virus back to their own country where infection may be less prevalent. In the early 1980s, Tanzanian armed forces invaded neighboring Uganda. The forces crossed a border area that had the highest incidence in Africa at the time. After the action, the soldiers, many of whom were infected, were demobilized uniformly around the country, greatly increasing the vulnerability of the people living in every town and province.

Thirty-three countries outside of the United States are providing combat forces or support in the Global War on Terrorism¹¹ with over 36,000 non-US coalition troops stationed in support of operations in Afghanistan and Iraq. While current statistics show that less than one percent¹² of these forces would fall into our five percent prevalence factor, the risk of increased transmission and infection remains threateningly high because of the diversity of so many participating countries; because many uniformed services around the world do not have HIV/AIDS or STI programs; and most countries (especially those in non-industrialized countries) have made military HIV/AIDS programs far less of a priority than civilian programs. Some uniformed services in countries with high incidence are finding that HIV/AIDS and STI prevalence hurt their ability to provide health services sustaining combat or peacekeeping forces both in-country and abroad. This health risk and lack of programs to reduce transmission could reduce the availability of non-US forces to support extended operations throughout the world.

Military personnel, too, risk contracting or spreading the fatal illness, whether deployed as beligerents or peacekeepers. Although in developing countries the military sector does not contribute significantly to the national economy, HIV/AIDS decreases the percentage of healthy demobilized sol-

diers in the labor market, costing resources for long-term economic development.¹³ Focusing on reducing HIV/AIDS among uniformed personnel in high-risk areas such as Africa can achieve advances toward reducing transmission, and promote a healthier population to support regional development and security.

African governments, the United Nations, and the United States are taking a closer look at the link between the uniformed services and AIDS, and are expanding education and prevention programs.

United Nations

The United Nations response started in the early 1980s with the World Health Organization (WHO) through its Global Program on AIDS (GPA). The focus was on collecting and exchanging technical information about AIDS. GPA expanded its activities, providing technical assistance at country level and building strategic partnerships in the UN system to respond to the multiple dimensions of the epidemic. Indeed, AIDS was viewed as a problem requiring both urgent and broad efforts. Critical changes occurring within WHO and tensions between UN agencies, donors, and NGOs all seeking greater involvement and responsibilities led to the end of GPA and to the creation of the UN Joint Program on AIDS (UNAIDS) in 1995.¹⁴

The unique characteristics of the program within the UN system, and the ever-changing characteristics of the pandemic raise issues and challenges to learn about individual and organizational behavioral change to improve the future. UNAIDS is virtually a single-issue program, yet it brings together a broad range of sectors, actors, and processes because of the complex nature of the pandemic, and its challenges to health and human development.

UNAIDS and peacekeeping

Recognizing that conflict and post-conflict areas are high-risk environments for the spread of HIV, in January 2001, UNAIDS signed a Cooperation Framework with the Department of Peacekeeping Operations (DPKO) to assist with the development of a comprehensive HIV/AIDS policy within the Department.

DPKO has developed pre-deployment training modules on HIV/AIDS. Further pre-deployment training is offered by DPKO on request. HIV/AIDS awareness is also included in induction upon arrival in the mission area. As part of its global awareness strategy for uniformed services, in June 2001,

UNAIDS and DPKO launched an “HIV/AIDS Awareness Card for Peacekeeping Operations” as a practical training tool for peacekeepers. This plastic card contains an inner condom pocket and outlines the basic facts about HIV/AIDS and the code of conduct for peacekeepers. Condoms are provided for peacekeepers and post-exposure prophylaxis kits are available for occupational exposure to HIV. DPKO ensures the safety of blood and blood products in field hospitals by using supplies from sources that meet WHO standards.

To respond to the HIV/AIDS epidemic within peacekeeping operations, UNAIDS and DPKO programs currently focus on selected countries affected by peacekeeping operations including: Sierra Leone (UNAMSIL), Democratic Republic of Congo (MONUC), Ethiopia/Eritrea (UNMEE), East Timor (UNTAET), and Kosovo (UNMIK).¹⁵

UNAIDS strongly supports a policy of voluntary confidential counseling and testing (VCCT) as opposed to mandatory HIV testing. In accordance with current medical and human rights guidelines, the UN does not require that troops at any time be tested for HIV in relation to deployment as peacekeepers.

The United Nations established a 2003 goal to “...ensure the inclusion of HIV/AIDS awareness and training, including a gender component, into guidelines designed for use by defense personnel and other personnel involved in international peacekeeping operations while also continuing with ongoing education and prevention efforts, including pre-deployment orientation, for these personnel.”¹⁵

The United States Department of Defense

In 1998, the Department of Defense (DOD), in cooperation with the US Agency for International Development (USAID), developed an initiative to reduce the incidence of HIV/AIDS among military personnel in selected African nations entitled the Leadership and Investment in Fighting an Epidemic (LIFE) Initiative. This successful program is managed by the Department of the Navy’s Health Research Center (NHRC), which partnered with host nations to develop innovative approaches to behavioral intervention with an emphasis on train-the-trainer programs and adapting off-the-shelf tools and training programs.

In 2001, the Office of the Assistant Secretary of Defense, in cooperation with the Assistant Secretaries for Policy (African Affairs), and Special

Operations/Low Intensity Conflict, developed the DOD HIV/AIDS Prevention Program (DHAPP). Using input from other agencies and with the LIFE initiative as its foundation, DHAPP was designed to continue the identification and prioritization of foreign militaries that would receive HIV/AIDS prevention support. The design was consistent with Defense Department Security Cooperation Guidance and supportive of Theater Security Cooperation Plans that provide security cooperation oversight. Again assigned to the experienced NHRC, the DHAPP program office was given the aggressive mission to “assist in reducing the incidence of HIV/AIDS among uniformed personnel in selected African nations and beyond.”¹⁶

DHAPP is a tri-service, multi-disciplinary effort that provides HIV/AIDS assistance to allied militaries in 35 nations.¹⁷ The program’s strategic outcomes are to improve security cooperation; create the ability for the US military to help improve foreign militaries’ medical readiness; increase country involvement in the process to assess critical needs for HIV/AIDS awareness, training, education, and surveillance; and expand US military technical assistance capability to enhance a country’s prevention program. DHAPP has funded and executed programs in Sub-Saharan Africa, Eastern Europe and Central Asia, the Far East, and the Caribbean.¹⁸

Presidential Emergency Plan For AIDS Relief (PEPFAR)

President Bush announced in the 2003 *State of the Union* address the Emergency Plan for AIDS Relief, a five-year, \$15 billion initiative to turn the tide in combating the global HIV/AIDS pandemic. This commitment of resources will help the most afflicted countries in Africa and the Caribbean wage and win the war against HIV/AIDS, extending and saving lives. Specifically, the initiative is intended to:

✓ **Prevent seven million new infections (60 percent of the projected new infections in the target countries):** The initiative will involve large-scale prevention efforts, including voluntary testing and counseling. The availability of treatment will enhance prevention efforts by providing an incentive for individuals to be tested.

✓ **Treat two million HIV-infected people:** Capitalizing on recent advances in ARV treatment, the President’s Emergency Plan for AIDS Relief will

be the first global effort to provide advanced anti-retroviral treatment on a large scale in the poorest, most afflicted countries.

✓ **Care for ten million HIV-infected individuals and AIDS orphans:** The initiative will provide a range of care, including support for AIDS orphans. The \$15 billion in funding for this initiative virtually triples the US commitment to international AIDS assistance. Funding will begin with \$2 billion in FY04, and ramp up thereafter. The \$15 billion includes \$1 billion for the Global Fund to Fight HIV/AIDS, tuberculosis, and malaria, conditioned on the fund's results.¹⁹

Program Integration

One challenge for HIV/AIDS programs focusing on uniformed personnel has been effectively measuring the influence on very strategic outcomes such as improving security cooperation, and providing realistic training programs in countries that may or may not have the resources or attitude to sustain HIV/AIDS programs among their uniformed services. Programs like DHAPP, PEPFAR, and UNAIDS, while they participate in the same circles, do not necessarily cross-flow monies or training opportunities. Thus, there are education gaps not only between civilian populations and uniformed personnel, but among the intended program populations.

Increasing military-to-military opportunities and integrating military training missions into programs such as DHAPP and UNAIDS will increase the network of experts and programs addressing HIV/AIDS among uniformed services, as well as reinforcing theater security objectives and supporting regional stability. The integration of military assets like Special Operations have the necessary missions, mindset, regional experiences (one example were the HIV/AIDS awareness and prevention classes presented by 3rd Special Forces Group instructors to uniformed personnel in Senegal in April 2000),²⁰ and global commitment toward security stabilization objectives.

Summary

The impact on regional security and stability is affected by many factors and HIV/AIDS is one of the major contributing factors in destabilization. There is also strong evidence that war itself is a factor in the rapid spread of the virus in Africa. Conflict brings economic and social dislocation, notes the

Joint UN Program on AIDS (UNAIDS), including the forced movement of refugees and internally displaced people and resulting loss of livelihoods, separation of families, collapse of health and education services, and dramatically increased instances of rape and prostitution. All this contributes to rapid spread of HIV and other infectious diseases.

Recognition of the military as a high-risk population, and the development of active programs to reduce HIV/AIDS transmissions among military populations can significantly improve regional development by reducing the destabilizing effects of this epidemic. Improved and aggressive integration between the United Nations, the United States, and the Department of Defense is needed to affect specific strategic outcomes and regional security goals through sustained programs.

The military-to-military connection continues in Part II, which looks at how Special Operations military-to-military training teams can "bridge the gap" that currently exists between programs.

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Lt Col Riley has served the Special Operations community for several years, and was assigned to the Joint Special Operations Medical Training Center at Fort Bragg, NC, and then as the Chief of SOF Medical Training at the United States Special Operations Command at MacDill AFB, Florida. He has served two tours as the Command Surgeon, for Combined Forces Special Operations Component Command during Operation Iraqi Freedom.

He recently developed a series of comprehensive monitoring and evaluation indicators and procedures for the Department of Defense HIV/AIDS Prevention Program.

All the World's a Stage NGO Actors and SOF Military in Humanitarian Operations

Dale Betterton, MD

Dorothy Davison, FNP

ABSTRACT

Much is written about military-civilian cooperation in complex humanitarian emergencies, but little about the interaction of SOF military and nongovernmental organizations, (NGOs).¹ The large-scale humanitarian interventions of the last fifteen years, viewed through the prisms of US strategic interest and multi-lateral action, offer valuable lessons about SOF and civic action players, as well as to non-emergency medical civic action programs (MEDCAPs.) We predict a new humanitarian aid made necessary by the evolving nature of asymmetrical warfare and the Global War on Terrorism (GWOT).

All the world's a stage,
And all the men and women merely players;
They have their exits and entrances;
And one man in his time plays many parts,
... Then a soldier,
Full of strange oaths, and bearded like the pard,
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth.
Shakespeare, *As You Like It*, 2.vii.

THE SET

Even though NGOs, particularly *Médecins Sans Frontières* (MSF; also known as Doctors Without Borders) were giving humanitarian aid to victims of conflicts in Biafra in the late 1960s and in Afghanistan in the 1980s, the vast expansion in NGOs, their prestige, and their influence, began post-Cold War with the waning of East-West proxy wars and colonial conflicts. A new era of asymmetrical warfare began, characterized by local and regional conflicts and by what are now known as “wars of identity.” Media focus on large-scale human suffering, starvation, actual and potential epidemics, and population displacement focused the international community's concern, guilt, and humanitarian instincts. These emergencies, with breakdown of civil authority and massive disruption of social fabric, were termed “complex” by analysts, though the “complexity” was not appreciated by those suffering.² A fashionable humanitarian market came into existence, and aid groups multiplied

to serve the new need. Intervention by multinational military forces to end suffering became accepted.³

In 1992, 118 million people worldwide were affected by natural (e.g., floods), technological (e.g., Chernobyl), or complex disasters. By the year 2000, this number was 275 million, an increase of 11% per year. The cost, in constant dollars, of these disasters increased from \$2.6 to \$4.5 billion, while the percentage of the total cost covered by donated assistance declined over the same period from 80% to 55%.⁴

There are now over 25,000 NGOs (somewhat cynically labeled NGO “swarming”),⁵ from the smallest (“a man, a dog, a van, and a good cause”) to the largest, spending some \$7 billion per year,⁶ with the big twelve (e.g., Cooperative for Assistance and Relief Everywhere [CARE], World Vision International, Oxford Committee for Famine Relief [OXFAM], MSF, Save the Children, etc.) spending half, which is more than UN relief agencies spend.⁷

The number of NGOs with official UN consultative status (and access to lucrative and prestigious contracts) now approaches 2,000,⁸ and the largest (CARE, OXFAM, Catholic Relief Services [CRS], MSF) have budgets of some \$200 - \$300 million per year, while the largest, World Vision International, has a budget of \$500 million per year.⁹ Several of these NGO actors spend more, and are active in more countries, than entire governments (e.g., Austria, Finland, Portugal, Greece, Ireland, New Zealand, Luxembourg.)¹⁰ Seventy percent of donor funds are governmental, the remainder being private.¹¹ World Vision and MSF are exceptions, obtaining the majority of their funding from private sources.

By contrast, in the US \$240 billion was donated to charity last year, with 36% going to religious charities.¹² Thus, US organizations like the American Red Cross and the Salvation Army have budgets five times that of the largest international NGO, almost \$2.5 billion per year.¹³

By the mid-1990s, NGOs found a burgeoning business in human suffering, with fifty-six wars unfolding, most intra-state “wars of identity,” rather than territorial disputes, and a shift to overwhelming numbers of civilian casualties, refugees, and internally-displaced persons (IDPs).^{14, 15, 16} British military doctrine includes within complex humanitarian emergencies disaster relief, humanitarian assistance, peace-keeping, non-essential evacuation operations, and peace-enforcement (the final three being collectively termed PSO – peace support operations), and consequently UK forces participated in thirty such deployments from 1988 to 2000.¹⁷

US military doctrine for Military Operations Other Than War (MOOTW) includes the less glamorous activities of non-combatant evacuation, disaster relief, civil support, and nation assistance.¹⁸ US SOF units have deployed in many large scale humanitarian operations, including Provide Comfort (SE Turkey, April 1991), Sea Angel (Bangladesh, May 1991), Provide Relief and Restore Hope (Somalia, August 1992 to May 1993), Support Hope (Rwanda, July 1994), Uphold Democracy and Restore Democracy (Haiti, September 1992 to March 1995), and others.

THE NGO SCRIPT

NGOs, motivated by religious or international humanitarian law principles, are variously defined. Slim finds them to be “a wide range of primarily non-profit organizations motivated by humanitarian and religious values, and that are usually independent of government, UN, and commercial sectors.”¹⁹ Weiss’

definition is simply a “nonprofit, voluntary, formal, nonviolent, nonpolitical organization whose objective is to promote development and social change.”²⁰

Obscured in these definitions are the strengths – local knowledge, commitment and principles, media-familiarity – and the weaknesses – lack of resources, slow responsiveness, rivalries, self-promotion – of these organizations, and their sometimes negative effects on the crisis, particularly the increase in violence and the number of IDPs, and the legitimizing of warlords.²¹

The degree of cooperation a SOF field operator might expect from a particular NGO depends to some extent on the historical evolution of that group from one of three traditions: the religious, the “Dunantist,” or the “Wilsonian.”²² The first is traditionally faith-based, like World Vision International, and includes the Aga Khan Foundation, a non-proselytizing Islamic charity. The second follows the philosophy of Henri Dunant, who founded the Red Cross in 1864 after observing the horrors of the Battle of Solferino in 1859, and is exemplified by MSF and OXFAM, both espousing the core humanitarian values of neutrality, impartiality, and universality. NGOs in this tradition tend to keep the military humanitarian at arm’s length, and may be openly hostile to military operations of any kind, combat or humanitarian. The third group, the “Wilsonians,” sees no conflict between US foreign policy and humanitarian aims, is exemplified by CARE, and generally has a practical, operational orientation. Historically, the “left” movement in Europe was instrumental in founding their humanitarian organizations, whereas the US “left” tended toward involvement in the human rights movement; hence US NGOs tend more toward governmental and military cooperation. Also, InterAction,²³ a consortium of US NGOs, fosters cooperation with governmental agencies.

Expecting to find 50 to 75 separate NGOs typically mustered at a large humanitarian aid gathering, SOF personnel should anticipate criticism of the military and their rationalizations for non-cooperation. Table 1 lists the twelve most frequently encountered. Most can be defused by a friendly, personal one-on-one relationship.

THE MILITARY SCRIPT

The military of course has its own value system, a fact often ignored by the NGO players, who see only the destructive capabilities of military force and sometimes overlook the likelihood the humanitarian emergency was caused by conflict between

Table 1

- ✓ Concern about the loss of neutrality if working with the military²⁴
- ✓ Concern that the military is more media photogenic²⁵
- ✓ Concern that military security hinders information exchange²⁶
- ✓ Concern about loss of independent operation²⁷
- ✓ Cooperation with the military might increase risk²⁸
- ✓ The military wastes resources²⁹
- ✓ In a crisis, the military arrives late and leaves early³⁰
- ✓ The military is too security conscious³¹
- ✓ The military is too political³²
- ✓ The military is not truly humanitarian³³
- ✓ The military is inexperienced³⁴
- ✓ The military is arrogant³⁵



combatants unfamiliar with the Western military traditions of honor, discipline, loyalty, and self-effacing service. The British Royal Military Academy, Sandhurst, summarizes this pithily by their motto, “Serve to Lead.” As a practical matter, the military is neither neutral, impartial, nor independent, but is driven by a sense of duty to, and legitimized by, the state. In a complex humanitarian emergency, the goal is to end the conflict, restore order, and secure the environment so political, diplomatic, and humanitarian goals can be achieved.

Intervention by the US military in failed states for humanitarian reasons, intelligence gathering, conflict resolution, and post-conflict nation building, to say nothing of limiting the space of intrastate outlaws and transnational terrorists by pockets of development and security, is now a well-established tenet of national security.³⁶ The doctrinal basis is well-established.³⁷

Much has been written about the difference in culture and personalities between military and NGO organizations, particularly the gulf between them in certain cultural dimensions termed “power distance” and “uncertainty avoidance.”³⁸ The former refers to the hierarchal gap between the leaders and

followers, and the latter to the degree of regimentation of behavior, and tolerance of dissent and ambiguity. This does not apply to the camaraderie of SOF units, a different “breed of cat” altogether, where informality, decentralization, mutual respect, and improvisation are not impediments to accomplishing the mission. Thus, at the operational level, the two groups function in a very similar manner. In fact, many of the members of European NGOs are ex-British Army.³⁹

And as for not being “truly humanitarian,” the British military on Operation AGRICOLA in Kosovo found that the NGO aid workers were “perplexed and amused” that the soldiers found the experience to be emotionally moving.⁴⁰

An article on medical civic action (also applicable to humanitarian emergencies) which details the essential attributes for those providing this assistance could almost serve as prerequisites for SOF training: committed experts to teach and advise, know and respect the local culture, speak the native language, communicate well with the local government, people, and military, and give credit for any accomplishment to the local hosts.⁴¹ Further, a chaotic, insecure, fast-changing tactical environment is made to order for SOF, a fact that has not been lost on Pentagon planners, considering the number of humanitarian operations SOF units have participated in over the last fifteen years.

Finally, Major General Timothy Cross, a British humanitarian relief expert, lists several principles recommended for NGO aid workers in dealing with the military.⁴² Inverting these to read from the military perspective gives a handy checklist of important considerations for SOF operators, and MEDCAP participants, to consider in dealing with NGO workers or host nation (HN) sponsors (Table 2).

Table 2

- ✓ Be humble - the NGOs and host nation personnel that you will be working with are likely to have much more experience, and certainly local knowledge, than you
- ✓ Recognize that there are many different military organizations around the world. Like NGOs/other agencies, not all are professional, and your behavior should set a standard and an example
- ✓ Seek out NGO workers, and key military leaders, at all levels, that you can relate to personally - personalities matter
- ✓ Explain clearly to NGOs and host nationals your unit's capabilities and limitations
- ✓ Send the right person to meet with NGOs and host nation sponsors
- ✓ Be open in offering assistance and favors
- ✓ Give credit where it is due, and don't be overly concerned if others take credit from you
- ✓ Explain to others concisely the function and organization of your unit
- ✓ Give generously of what you do best, particularly logistics, commo and security
- ✓ Anticipate and transition NGOs and host nationals to take over and continue with the mission when you leave
- ✓ Prepare NGOs and host nationals for the possibility that the situation might change for the worse, particularly if security deteriorates

PERFORMANCES

Pre-9/11, the recurrent complex humanitarian emergencies of the 1990s, usually characterized by multilateral interventions, saw the wide use of SOF units for rapid efficacy. The first of these was Operation Provide Comfort in SE Turkey in April 1991. Under the authority of UN Resolution 688 and a Presidential Order to stop the suffering and dying of Kurdish refugees, USAF Special Operations cargo

hundred persons per day, mainly children and the aged. This rate soon dropped to near zero. The administration of these camps was soon handed over to NGO groups, who had not been in place prior to the refugee crisis, and the ad hoc military-NGO cooperation as it evolved on the ground was excellent. The one-on-one personal contact between the NGOs and the military/NGO liaison officer was instrumental to this success, as was the Office of Foreign Disaster Assistance/Disaster Assistance Response Team (OFDA/DART), well known to, and respected by, the NGO Coordinating Committee.⁴⁴

One month later, in May 1991, Hurricane Marian destroyed the road, rail, and communication infrastructure in Bangladesh, isolating the NGO relief and development groups already in country. A Military Coordination Center (MCC), the forerunner of the present operational level structure to combine military and NGO relief efforts, the Civil-Military Operations Center (CMOC), was quickly set up to coordinate the two players. The NGOs there had unreasonable expectations for the MEB's (Marine Expeditionary Brigade's) communications capabilities, but again, daily face-to-face meetings helped to smooth over relations.⁴⁵

Much has been written about Operation Restore Hope, the US-led United Nations Task Force (Somalia) (UNITAF) mission to Somalia from December 1992 to May 1993, both from the viewpoint that it was a military and political disaster, and that it was one of the finest examples of Special



aircraft initially dropped supplies, and later the US Army's 10th SFG, the US Air Force's 39th Special Operations Wing, the US Marine Corps' 24th MEU (SOC) (Marine Expeditionary Unit [Special Operations Capable]), and civil affair units with the 4th Psychological Operations Group played a vital role in providing medical care and food to the refugee camps.⁴³ The death toll in the makeshift camps before the arrival of SOF units was estimated to be several

Operations Soldiers' steadiness under fire, courage, and sacrifice while undertaking a difficult mission. It was of course, the definition of a "complex" emergency: famine set against the background of warlord thuggery. The SOF military was hampered by the lack of prior planning,⁴⁶ and a mission change from humanitarian relief to security and then to warfighting.⁴⁷ SOF were also hampered by lack of coordination between NGOs already in-country, SOF and Marine units, and the nine separate CMOCs, one for each of the country's nine sectors.⁴⁸ Due to lack of planning, there was little understanding of the cultural and socioeconomic background of Somalia.⁴⁹ In spite of all of these problems, the operation was a humanitarian success, since famine was halted and 250,000 lives were saved.⁵⁰

Operation Restore Democracy to Haiti in September 1994 worked better, with SOF ODAs and civil affairs reservists with Joint Task Force Raleigh commanded by BG Dick Potter conducting most of the civil and military operations.^{51,52} In fact, SOF units "for many months constituted almost the only civil administration."⁵³ NGOs working under the prior Cedras regime were deemed to be likely corrupt and compromised, and SOF intelligence assets helped the CMOCs distinguish the good from the bad.⁵⁴ The success of this mission, with a long run-up to intervention, was also attributable to extensive planning, repeated meetings with InterAction,⁵⁵ and the fact that many of the vetted, in-country NGOs were acquainted with the CMOC concept from prior exposure in Somalia and Rwanda.⁵⁶

In the Balkans, Operation Joint Endeavor from December 1995 to December 1996 involved civil affairs reconstruction and coordinating over five hundred UN organizations, IOs, and NGOs. And in Operation Allied Force, the humanitarian relief of the

Kosovar refugees, SOF Civil Affairs and PSYOP units and aircraft coordinated relief and informational efforts.⁵⁷

COMING ATTRACTIONS

Post-9/11, US preemption in the GWOT, with or without humanitarian assistance, has become national policy. In the case of Operations Enduring Freedom and Iraqi Freedom, humanitarian relief in a warfighting context has been criticized, particularly by MSF:

*Whether dropping "humanitarian" food packets while simultaneously unloading bombs from warplanes over Afghanistan or deploying military personnel in vehicles marked "humanitarian assistance" in Iraq, the US's attempt to justify its military goals as "humanitarian" has seriously undermined the very principle of true humanitarian action – unconditional assistance to those in need without taking sides in a conflict.*⁵⁸

At the same time that this criticism was leveled, MSF was compromising its principle of neutrality by providing money and support to the Taliban, and rendering medical aid on terms dictated by the Taliban, to order to be permitted to remain in the country.⁵⁹

Another recent and continuing criticism of the US military's humanitarian stance post-9/11 by NGOs with a human rights agenda is the exclusion of transnational terrorist organizations and infranational insurgents from the protection afforded by international humanitarian law, which precepts are held sacred.

Many suggestions for fostering cooperation between the NGOs and the military have been advanced, usually from the military side. Since some 50% of NGO field workers are female, the feminization of civic action liaison work with NGOs seems appropriate. The seconding of female personnel on TDY assignments to various NGOs should be considered. Strategic planning for complex humanitarian disasters is difficult because of their unpredictability and fluidity, but should be attempted, particularly in conjunction with scenario gaming and experienced NGO input. The extent to which junior SOF officers and NCOs, lacking access to strategic level service schools, are unfamiliar with NGO philosophy and functioning might be improved by a basic level handbook.

The Clausewitz dictum that war is the continuation of politics by other means, applicable in the eighteenth century, will be turned on its head in the



twenty-first: a new method of warfighting and peace-making will extend and protect an integrated, connected civilization and its politics.⁶⁰ If and when *The Pentagon's New Map*⁶¹ toggles up on the screen of SOF's GPSs, these soldiers (hopefully) will be useful on both arms of a hypothetical two-pronged new military, both the "Leviathan" (conventional, warfighting) and the "System Administrator" (global civic action, security). Cooperation with many entities, the UN, IOs, NGOs, USAID, and the US Departments of State, Commerce, and Justice, in development and nation building will be the key to stabilizing the "gap" states (the Middle East, SW Asia, Africa, and much of Central and South America) and preventing future conflicts.

Concluding Reflections

O living man! What revelations
 Await you in this world?
 The wretchedness that today is mine
 May be your fate tomorrow.

(from a Somali poem composed by
 an elder made destitute by famine)⁶²

DRAMATIS PERSONAE

CARE - Cooperative for Assistance and Relief Everywhere
 CMOC - Civil Military Operations Center
 CRS - Catholic Relief Services
 DART - Disaster Assistance Response Team--of OFDA
 DCHA - Disaster, Conflict, and Humanitarian Assistance--pillar bureau of USAID
 DFID - Department for Foreign International Development --UK
 DP - Displaced Person--across international boundaries
 ICRC - International Committee of the Red Cross
 IDP - Internally Displaced Person--within a country
 IMA - International Medical Alliance--a US minor NGO; accessible at <http://www.imaonline.org>
 IO - International organization--e.g., ICRC
 MEDCAP - Medical Civil Action Program
 MOOTW - Military Operations Other Than War--e.g., strikes and raids, support of insurgency, anti-terrorism operations, non-combatant evacuation, counter drug operations, disaster relief, civil support, nation assistance
 MSF - Médecins Sans Frontières--aka Doctors Without Borders
 NGO - Non-governmental organization--usually driven by values of neutrality, impartiality, and universality
 OFDA - Office of Foreign Disaster Assistance
 OXFAM - Oxford Committee for Famine Relief
 UNITAF - United Nations Task Force--Somalia
 USAID - US Agency for International Development



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Hands-On SOF Medicine: Using Therapeutic Adjuncts to Correct Structural Imbalances and Alleviate Myofascial Pain

Richard Gamble

ABSTRACT

Structural imbalances create unnecessary strain in the body, limited flexibility, pain, inflammation, and increased potential for injury. Teaching proper use of adjuncts and self-care empowers the patient to alleviate pain and prevent injuries, while minimizing the necessity for drugs and surgery.

Financial Disclosure: Richard Gamble has indicated that his presentation will include discussion of commercial products or services; however, within the last 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.

OBJECTIVES

1. Identify adjuncts used to mobilize restricted fascia locally.
2. Identify adjuncts used to mobilize restricted fascia globally.
3. Explain the importance of “rules of thumb” and Principles of Intervention as applied to adjunct use and treatment strategies.

THIS ARTICLE HAS BEEN AWARDED **1** CATEGORY 1 CREDIT TOWARD THE AMA PHYSICIAN’S RECOGNITION AWARD (CONTINUING MEDICAL EDUCATION CREDIT) AND **1.2** NURSING CONTACT HOURS.

Test on page 42; answer sheet on page 44





INTRODUCTION

The purpose of this article is to address therapeutic adjuncts, and the framework of care in which they may be used most effectively. Proper use of therapeutic adjuncts can prevent injuries, speed recovery from chronic injuries, and alleviate structural problems that could become dysfunctional in the future. Note: A global method of analyzing structural patterns is covered in the article Hands-On SOF Medicine (JSOM Fall 2003), and an analysis of local factors influencing back pain is covered in the article Debunking the Myth (JSOM Summer 2004).

Specialized application of adjuncts can change bony relationships and compensation patterns locally in a fashion that stretching does not. Consideration of global, structural, and compensa-

tion patterns is especially important before the application or usage of therapeutic adjuncts, and it often is important to develop balance and flexibility prior to or concurrently with adjunct use. Following the discussion of adjuncts, “rules of thumb” will be covered that prepare the target tissue(s) and entire body to adapt to the therapy. The Principles of Intervention, as developed by Jeffrey Maitland, Rolfer™, will also be covered.

The following therapeutic adjuncts will be discussed, with their uses:

-  Rope
-  Balls
-  Handheld Therapy Tools
-  Nola-Rola™

- 🔪 Foam Roll
- 🔪 Inversion
- 🔪 Pilates™ ball or Bodyball™
- 🔪 Wedges

For each adjunct, an improvised adjunct is suggested for field use or when those discussed are not available.

REASONS FOR ADJUNCTS

There are two important reasons for using adjuncts during therapy. First, adjuncts provide options during treatment, allowing a therapist or medic to treat in one area while facilitating change in another area. Second, given proper instruction, patients can participate in their own treatment at home or between sessions. This empowers patients to take an active role in their own healing, while working at their own pace and not subject to the time restraints often present during treatment sessions.

FUNCTIONS OF ADJUNCTS

During clinical or self-treatment, adjuncts are differentiated into two basic categories. These categories are adjuncts that:

- 🔪 Mobilize restricted fascia locally
- 🔪 Mobilize restricted fascia globally

These are loose definitions and there is overlap between categories. However, separating them allows each to be considered in the context of the therapist's and patient's goals of treatment.

ADJUNCTS USED TO MOBILIZE RESTRICTED FASCIA LOCALLY

🔪 Rope (stretches)

Ropes or straps are often used in therapy to facilitate a stretch that is difficult to achieve due to compromised body mechanics, inflexibility, or positioning. An example is an active-isolated hamstring stretch.¹ This stretch is done lying on the back to remove gravity's effect on the trunk. It is accomplished with the rope held in the hands and looped around the foot of the hamstring being stretched, while the other leg is either bent with the foot resting on the floor or outstretched lying flat. Most patients find that the rope allows more relaxation and ease during the stretch.

Improvised: Climbing rope, braided 550 cord, towel, therapy band



Figure 1 – Rope Stretch

🔪 Balls

Balls are used as self-care tools to address trigger points and local areas of restricted fascia. Balls are used by using the weight of the body (or body part) to compress the ball into the area of restriction by lying or sitting on it. The ball may also be held in one or both hands and used to mobilize restricted tissue.

The balls used are of varying diameters and rigidity. Five sizes are recommended: golf ball, racquetball, tennis ball, baseball, and softball (the baseball and softball are soft children's models). Balls may be placed at a position of shortened or restricted tissue anywhere in the body in order to create freedom and length. Taking time and allowing the tissue to soften gradually, combined with visualizing the target tissue melting and/or lengthening is most effective. Once the tissue has softened, initiate a movement to create a stretch that lengthens the tissue.

Golf ball – Plantar fascia

Racquetball – Lateral leg, anywhere the tennis ball is too aggressive

Tennis ball – Paraspinals, arms, lateral leg, anywhere the baseball is too aggressive

Soft fabric baseball – Paraspinals, large muscle groups of the leg, gluteals, psoas

Soft fabric softball – Large muscle groups of the leg, gluteals, psoas

Improved: Rolled socks, round objects padded with gauze and tape or Coban™

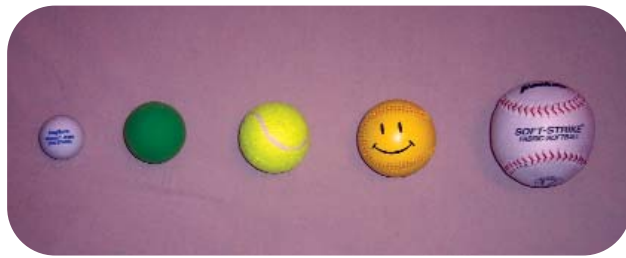


Figure 2 - Balls

Handheld therapy tools

Handheld therapy tools are commercially available and are used to help a patient perform self-care. These tools perform the same function and are used in much the same fashion as balls (described above) but are designed to provide extra leverage or treat hard-to-reach areas, such as the back or sides of the body.

Handheld therapy tools are also marketed as tools designed to save the therapist's hands. This is not a recommended use, as it does not allow the therapist to feel when the target tissue is releasing, and tools are sometimes used in an overly aggressive manner.

Improved: Handle from a broom or other tool

Nola-Rola™

Nola-Rola™ may be used as other handheld therapy tools, but a unique application is as a self-care tool for the back. The Nola-Rola™ is a 2-inch wide wooden rod that is notched in the center to allow mobilization of the paraspinals and thoracic spine simultaneously without placing pressure on the spinous processes. This tool can be used anywhere on the thorax; at the neck, the cervical curve can prevent adequate pressure unless the tool is elevated.

Improved: Two tennis balls taped or strung together (more can be added at either end to effect tissue more laterally)



Figure 3 – Nola Rola

6 inch Foam Roll

The foam roll can be used in two ways: to mobilize a kyphotic or “stuck” thoracic spine longitudinally, or mobilize the ribcage and associated joints. Unlike the Nola-Rola, the foam roll can be placed directly under the spinous processes, as long as underlying pathology has been ruled out.

Note: If the foam roll is too aggressive (painful) initially, use a rolled pillow instead.

Mobilizing the thoracic spine

Position the patient supine over the foam roll with the roll placed at right angles to the spine just inferior to the axillae. Ask the patient to relax and encourage them to “melt” over the roll. This allows gravity to slowly mobilize fixed facet joints or rotated vertebrae. Once this area has been mobilized, the roll can be moved a short distance superior or inferior. Attempt to keep the roll under the thoracic spine - the cervical and lumbar spine are normally lordotic and do not need to be mobilized in this direction.

To facilitate the mobilization, place the palms of the hands on the sternum and press gently towards the floor, then roll the ribcage gently away from the medic until resistance is felt. Hold for a few minutes and follow any releases that occur. Move to the other side of the patient and repeat.

Mobilizing the ribcage and associated joints

Position the patient supine over the foam roll with the roll placed parallel to the spine from head to sacrum. Ask the patient to relax and encourage them to “melt” over the roll. This allows gravity to slowly mobilize fixed sternochondral, chondrocostal, and costovertebral joints. Once the patient has “softened” into the roll, allowing the spine to roll slightly lateral off the spinous processes on either side can assist in mobilizing costovertebral joints and paraspinal muscles.

To facilitate the mobilization, place the palms of the hands on the lateral ribcage and press gently towards the floor, then gently push the ribcage superior until resistance is felt. Hold for a few minutes and follow any releases that occur.

Unlike the previous adjuncts, the foam roll directly and aggressively mobilizes the osseous structures as well as myofascial units. Therefore, creating flexibility and resilience in the rest of the body is important to consider prior to using this adjunct, as well as the necessity of moving slowly and cautiously.

Improvised: Rolled pillow or sleeping bag, swim noodle



Figure 4 – Foam Roll

Any of the adjuncts described above can have the secondary effect of allowing dysfunctional osseous fixations to mobilize and self-correct, once the soft tissue in the area has been released. These spontaneous corrections can be facilitated in the spine by lying supine on an adjunct long enough for the tissue to soften. With the knees up and feet planted, allow the knees to fall slowly to one side, then the other side. Although lacking the specificity of chiropractic or osteopathic manipulations, these adjustments often result in pain relief and further tissue softening.

MOBILIZE RESTRICTED FASCIA GLOBALLY

Inversion table, gravity boots--Inversion is primarily used to decompress the vertebrae and joints. The pull of gravity creates a constant compression in the joints during almost every daily activity, which is only lessened when the body is horizontal or at neutral buoyancy. The soft tissue around the joints adapts to this compression by shortening (taking up the slack) around the joints. Inversion has the effect of removing compression from the joints. Gravity creates traction, opening the joint spaces and stretching the shortened tissues around joints.

Inversion works to open each joint locally, but it also works globally, stretching fascia and muscles across several joints at one time. As many patients are restricted regionally as well as locally, inversion is beneficial in correcting structural imbalances.

Note: Inversion tables or inclined surfaces are adjustable (and therefore often easier to tolerate than gravity boots) when patients are in chronic pain or unable to tolerate full inversion.

Improvised: Hang inverted from pull-up bar or lie inverted on inclined sit-up bench



Figure 5 – Inversion Table

Pilates™ ball or Bodyball™--Lying over a Bodyball™ has similar benefits to inversion, only the effects are regional and only affect one side of the body at a time. Lying prone over the ball stretches the back. Lying supine over the ball stretches the front of the body. Lying side-lying on the ball stretches the opposite side of the body.

Success using these stretches requires two goals:

1. Relaxing the body as much as possible to allow gravity to create the desired stretch.
2. Attempting to keep the side of the body in contact with the ball “long” so that the opposite side can lengthen, rather than merely shortening the side in contact with the ball.


Bodyballs™ are found in a multitude of sizes. Larger balls allow the stretch (traction) to cover more of the body with a gentler stretch, while smaller balls allow more regional, aggressive stretches.

Note: Some Bodyballs™ are capsule-shaped to allow stability so that patients can more easily keep their balance while stretching. This reduces fear of injury related to falling off the ball and promotes relaxation during the stretch.

Improved: Cover a rucksack (frame down) with a blanket or poncho liner and use like a Bodyball™ (prone, supine, or sidelying)



Figure 6 - Bodyball™

 **Wedges** are used in pairs to mobilize the pelvis or lumbar spine. They may be used with the patient lying prone or supine. Gravity is used as the force creating the mobilization.

Correcting anteriorly tilted pelvis while the patient is prone: Place the two wedges under the iliac crests oriented in an inferior and medial direction. (Figure 7) Allow the patient to “melt” into the wedges for a few minutes.



Figure 7 – Prone Anterior Tilt

Correcting anteriorly tilted pelvis while the patient is supine: Place the two wedges under the ischial tuberosities oriented in a superior and medial direction. (Figure 8) Allow the patient to “melt” into the wedges for a few minutes.



Figure 8 – Supine Anterior Tilt

Correcting a torsioned pelvis that is tilted anteriorly on the right while the patient is supine: Place one wedge under the right ischial tuberosity oriented in a superior and medial direction. Place the other wedge under the left iliac crest oriented medially. (Figure 9) This configuration places the wedges to provide pressure rotating the right ilia posterior and the left ilia anterior. Allow the patient to “melt” into the wedges for a few minutes.



Figure 9 – Supine Torsion Anterior Right Posterior Left

Improved: Use tennis shoes or boots (sole up) in the same manner as wedges

Anterior/posterior tilts and torsion are discussed in detail in the article Debunking the Myth (JSOM Summer 2004). For those unfamiliar with assessment of the pelvis, a brief summary is described below.

Anterior/posterior Tilt

Anterior and posterior tilts are indicative of an imbalance of the myofascial units around the spine in the sagittal plane.

An **anterior tilt** creates lumbar strain through the L5-S1 joint – the lumbar spine is pulled forward by its foundation, the sacrum. Assess for lumbar lordosis and limited flexibility in hip extension.

In **posterior tilt** the lumbar spine is usually held in place rigidly, allowing little movement or flexibility. Assess for “flat back,” a loss of the slight lumbar lordosis apparent in most people.

The units affecting anterior tilt and posterior tilt balance one another, and frequently are held in a “locked short/locked long”² relationship. For example, if the iliacus is held in a state of fascial shortness (locked short) keeping the pelvis in an anterior tilt, the piriformis, lateral rotators, and often the hamstrings will be fascially held in a state of eccentric contrac-

tion (locked long), so that the pelvis will not tilt further forward.

Pelvic Torsion

Pelvic torsion occurs when the pelvis is not being tilted anteriorly or posteriorly as a whole, but twisted by an anterior pull on one side and a posterior pull on the other. This torsion will create a fixed relationship (rather than free movement) at the sacroiliac joints and shear at the symphysis pubis. This torsion can be discovered by the comparison (by palpation) of the positions of bony landmarks on the pelvis (ASIS, PSIS), standing and in forward bending. The PSIS that moves first during a standing forward bend is usually on the side of the fixed sacroiliac joint, if they are not both fixed.

TREATMENT STEPS – “RULES OF THUMB”

Once the body has been analyzed for structural or postural imbalances and areas of restriction or shortness have been localized, treatment can be broken down into four basic steps.

1. Stretch short areas “locked short” – Specifically stretch or use adjuncts to open shortened locked short areas to open the area and create balance.
2. Strengthen lengthened areas “locked long” – Specifically strengthen locked long areas (after mobilizing if necessary) to tone the area and create balance.
3. Mobilize fascia and osseous restrictions – Use stretching, strengthening, and adjuncts to normalize spinal curves, establish evenness of tone and easy balance.
4. Movement education – Ask the client (or assist them) to stretch, strengthen, and move the body within the newly established range of motion to facilitate new, more functional movement patterns.

JEFFREY MAITLAND’S PRINCIPLES OF INTERVENTION (PARAPHRASED)

Treatment strategies or steps, such as the “rules of thumb” stated above, are general guidelines that are often used to guide a treatment session. Any rule or strategy must have at its root, basic principles that are the foundation upon which these rules and treatment strategies stand. Jeffrey Maitland, PhD, Rolfer™, has succinctly presented the Principles of Intervention that considers the whole person in treatment.³

They are paraphrased below:

✍ Living bodies are self-shaping, self-organizing, and self-sensing and no aspect is more important to the organization of the whole than the whole itself.

✍ If the whole person is unable to adapt to any intervention or series of interventions, the person will revert to their pre-intervention state of dysfunction, strain and disorder will be driven elsewhere in the system, or both.

✍ The extent to which higher levels of organization are possible is the extent that the person finds support within the limitations of spacetime, gravity, and the environment.

✍ Any fixation or impediment to order (whether myofascial, articular, conceptual, etc) can create a loss of continuity, locally and globally.

✍ Palintonicity (evenness of tone) appears with the manifestation of horizontal and vertical lines/planes intersecting at right angles in the sagittal, coronal, and transverse planes. The appearance of horizontals at the joints and unencumbered patterned movement arise together.

SUMMARY

Consider the following scenario: One of your team members has repeatedly complained of low back pain that sometimes radiates down the leg, but wanted to continue training. You did not have time to get him to a specialist due to mission planning, so you helped him through his pain with Valium™ and Motrin™. Upon HALO insertion, your teammate re-injures himself and the mission needs to be scrubbed, as you carry him off the objective.

This scenario might have been prevented if you had noticed the patient’s chronic injury pattern and applied proper rehabilitation and self-care principles. Specialized application of adjuncts⁴ can assist the medic (or patient) to change bony relationships and compensation patterns. Medics can consider global structural and compensation patterns,⁵ assist the client to develop balance and flexibility, and educate them on the application or usage of therapeutic adjuncts. Application of the “rules of thumb” and consideration of the Principles of Intervention enables the medic to create a treatment and self-care program tailored to the individual.

SOF medics can take a proactive, preventative approach to training and health that minimizes injuries and speeds rehabilitation in our unforgiving operational environment. No operator or medic wants to see a mission scrubbed because of a preventable injury.

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3. Maitland, Jeffrey, The Principles of Holistic Intervention: Overcoming the Limitations of the Ten Session Recipe, IASI Yearbook 2004, Pg 18-33. (These principles are essential when conducting treatment that considers the whole person instead of dealing with individual systems in isolation. In the text, they are referred to as simply “Principles of Intervention” as they are applicable to any intervention, allopathic or alternative/holistic.)
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In-Flight Transfusion of Packed Red Blood Cells on a Combat Search and Rescue

Mission:

A Case Report from Operation Enduring Freedom

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ABSTRACT

Injuries on the battlefield can occur far from the nearest medical treatment facility. This is especially likely for downed pilots and Special Operations personnel. Some of these injuries lead to significant blood loss requiring transfusion. We present two cases of injured coalition force members during Operation Enduring Freedom that illustrate the potential need for a transfusion capability at the site of injury to prevent death. Consideration should be given to augmenting transfusion capabilities in military environments with predictably long evacuation times.

INTRODUCTION

Transfusion therapy has been an integral part of military medicine since the middle of the last century. Former Army Surgeon General Leonard D. Heaton credited the prompt and liberal use of whole blood as the single medical program that could be credited with the saving of countless lives in World War II and in the Korean War.¹ The first step in the treatment of hemorrhagic shock is to stop the bleeding. On the battlefield, this usually means a pressure dressing. Volume resuscitation with crystalloids is the usual temporary measure to span the gap between the time of injury and definitive treatment.² In civilian practice, injured patients are rapidly brought to fixed medical treatment facilities for resuscitative care. Soldiers injured on the battlefield or pilots downed in combat do not have this luxury. They can be hundreds of miles from any resuscitative care facility. Army doctrine states that blood products are used only as far forward as the second echelon of care (resuscitative surgery).³ We present two cases to lend consideration for instances where blood could be used during evacuation.

Case 1

The death of a coalition soldier during evacuation to Kandahar from eastern Afghanistan prompted an internal review of medical assets and standard operating procedures. The soldier was a passenger in a military vehicle who was injured as a result of a land mine explosion while a significant distance from the nearest treatment facility. The soldier's injuries included a right below the knee amputation, open right femur fracture, and a mandibular fracture with a buccal avulsion. Initial vital signs included a pulse of 124 and a systolic blood pressure (SBP) of 79. Treatment provided by a Special Forces medic included a tourniquet on the right leg below the knee, pressure dressing and splint on the right femur, and pressure dressing on the face. Two liters of crystalloid were given over approximately 15 minutes. As there was no improvement in vital signs, an additional 2L of crystalloid and 1L of hetastarch were given over the next one-half hour. His tachycardia continued but his SBP increased to 88. Air Force pararescue medics (PJs) from the 38th Rescue Squadron left their base station within 15 minutes of

the injury and parachuted from a fixed wing aircraft onto the accident scene less than 2 hours after the injury to assist the Special Forces medic and prepare the soldier for evacuation. As his wounds were still slowly bleeding, the pressure dressings were changed and the bleeding stopped. PJs from the 66th Combat Search and Rescue Unit (CSAR) arrived 3 hours after the injury via helicopter (HH-60G) for evacuation. On their arrival, the patient had a spontaneous respiratory rate of 12 breaths per minute and clear, bilateral breath sounds. The soldier had received morphine and was responsive only to pain. Vital signs were consistent with marked hypovolemia (heart rate of 130, SBP 80). All external bleeding had been controlled. However, the patient had lost a significant amount of blood as evidenced by the blood soaked sleeping bag he was in. He was removed from the sleeping bag and then placed in a dry hypothermia bag for transport. Standard procedures were maximized en route including an additional 2L of crystalloid to maintain his SBP greater than 80 and oxygen by face-mask at 8L per minute. Evacuation was by helicopter using nap of the earth techniques at an elevation of 3,500 feet. Twenty minutes into the flight, his breathing became irregular so he was intubated and manually ventilated with oxygen at 12L per minute. The soldier lapsed into a cardiopulmonary dysrhythmia 90 minutes into the flight and 30 minutes before arrival at the 250th Forward Surgical Team (FST) in Kandahar Airfield, Afghanistan. Six hours after the injury, he died.

Case 2

As a result of the previous case, the 66th CSAR, in concert with the 250th FST, instituted the local policy of transporting packed red blood cells (group O positive) for certain medical evacuation missions. These missions were under the medical direction of the CSAR flight surgeon while a protocol for field or in-flight administration of blood was jointly developed (Figure 1). Approximately 2 weeks after the previous case, the 66th CSAR received a mission to evacuate a critically injured soldier. This casualty had been injured as a result of a mortar attack and was still in hostile territory. The PJs reached the patient via helicopter within 2 hours of injury. The patient and other non-critical casualties were emergently evacuated as the unit and evacuation helicopter were receiving mortar, rocket-propelled grenade, and small arms fire. No estimate of blood loss at the scene was given to the PJs before evacuation. The medical report and the primary survey were

completed en route to a refueling point. The soldier's injuries included penetrating wounds to the shoulder, scapula, and buttocks. The patient was responsive, able to answer questions related to his injuries, and had clear breath sounds. There was minimal active bleeding in the aircraft. The patient's chief complaints were pain from his injuries and feeling cold. The initial vital signs obtained were a respiratory rate of 28, heart rate of 131, unobtainable blood pressure, and an oxygen saturation of 87%. He was placed on high flow oxygen (15L per minute), a large bore intravenous line was started, and a 2,000cc normal saline bolus was administered with improvement in his pulse oxymetry but not in his blood pressure. After checking for allergies and his blood type (unknown), he was treated with 50mg of intravenous diphenhydramine followed by an infusion of one unit of 0 positive blood over 30 minutes. The patient was taken to the nearest FST located at Bagram Airfield, Afghanistan with one hour of flight time, again by nap of the earth. On arrival to the FST, the patient's vital signs were a respiratory rate of 24, a heart rate of 79, an oxygen saturation of 100%, and a SBP of 100. The hematocrit on arrival to Bagram was 35% and stabilized at 28% within 12 hours. The patient was resuscitated with 3L of crystalloid during that 12-hour period. As he had no active bleeding, this implies that his pre-transfusion hematocrit may have been around 25% and leveled out at 28% as a result of the transfusion and other fluids.

PROVIDER REQUIREMENTS:

EMT-P National Registry Certification.

Attendance: Blood Product Administration class/lab

ELIGIBILITY:

All three required; MD consult if communication available.

1. Traumatic injury (blunt or penetrating)
2. Hypovolemia (> 1000cc estimated blood loss)
3. Unstable (minimum: two clinical indicators)

* Transport time to MTF-- (> 1 hour) *not absolute; consult MD

CLINICAL INDICATORS:

1. Hypotension < 90 mmHg SBP unresponsive to 2L crystalloid
2. Tachycardia > 120 bpm unresponsive to 2L crystalloid
3. Hypoxemia < 90 SPO₂ with reliable waveform after oxygen therapy
4. Bleeding poor control with field/pressure dressings

5. Color periorbital, perioral hypoperfusion (pallor)
6. LOC Glasgow Coma Scale < 14

TRANSPORT:

Insulated cooler with 4 units of O Positive PRBC; 2 boxes blood tubing; 2 doses 50mg diphenhydramine (Benadryl®). Administration protocol with blood, time/date documentation.

1. 12 hr storage limit at 4 to 10C (insulated cooler / validated thermometer)
2. 4 hr limit outside transportation cooler
3. 12 hr + 4hr = 16 hour expiration in field setting (return expired blood to FST)

ADMINISTRATION:

1. Meets indication for transfusion (consult MD if communication available)
2. 18 gauge or larger IV in arm (unless injured)
3. Blood tubing primed with normal saline (not Lactated Ringers: Ca ++ content)
4. Check blood expiration date and temperature (10C or below)
5. Add minimum 100cc warmed saline to PRBC bag
6. Warm blood to body temp (absolutely no excessive heating = red cell death)
7. Each unit 5 minute gravity flow: observe for transfusion reaction
8. Halt transfusion if suspected reaction and administer diphenhydramine 50mg IV
9. Do not to exceed 200mm Hg on a pressure bag for rapid administration
10. Document changes (if any) in clinical indicators after each unit PRBC
11. Empty bags must remain with patient and unit numbers recorded at MTF

Figure 1. Test protocol: Field administration of blood

DISCUSSION

Health service support for the battlefield is rapidly changing as we transition into a leaner, more lethal military. Operation Enduring Freedom (OEF) offers a glimpse of the medical challenges for future operations due to its departure from conventional warfare. The use of multinational special operations Forces (SOF) to combat enemies without distinct borders has changed many concepts of war. By design, SOF is composed of small teams capable of operating simultaneous missions at different locations. These units are commonly inserted into remote areas far removed from the traditional echelons of health care support.

The need for aeromedical evacuation in these remote and many times austere locations is as essential today as it was in Vietnam. OEF presents challenges to the notion of a “golden hour” as there are limited aeromedical assets spread over a large theater. Additional problems can come from the effects of altitude and temperature extremes. The high altitudes of Afghanistan strain helicopter limits of speed and lift and pose additional physiologic stresses to injured soldiers. Evacuation delays due to tactical restraints are not unique to OEF but continue in the same patterns as previous conflicts.

Data from the Vietnam War shows that approximately 50% of those killed in action died from exsanguination.⁴ In addition, at least 20% of those who survived until they reached the medical treatment facility died as a result of hypovolemic shock.⁵ A significant percentage of the remainder died as a result of a complication that could be attributable to blood loss (hypoxic brain injury, multiple organ failure from organ hypoxia) and the subsequent loss of oxygen to the body’s tissues. Military surgeons need only look as far back as Operation Restore Hope from Somalia in 1993 to see examples of SOF units pinned down in hostile territory where evacuation delays transformed typically survivable wounds into mortal wounds. Bellamy predicts that a 6-hour delay in evacuation increases the number of casualties who die before reaching the military treatment facility from 20% to 26% with the major cause being exsanguination.⁴

Blood transfusions are already a significant factor for many casualties. Original reports from OEF show an 18% transfusion rate for those wounded in combat.⁶ This is higher than the 11% the Croatsians reported from the Balkans.⁷ The OEF transfusion rate is more consistent with the Korean War rate of 20% but does not approach the Vietnam War rate of 36%.⁷ These challenges create a need to deliver life-saving measures such as blood to patients at the first echelon of care.

There are many potential complications from transfusions. Major hemolytic transfusion reactions are rare but are the prime cause of transfusion-related mortality. Additionally, hypothermia is a common complication from the rapid transfusion of cold packed red blood cells. For those soldiers who are already cold, this increases their risk of cardiac arrhythmias and coagulopathy. Transfusion transmitted diseases are the primary cause of late death from transfusion.⁸ The most common etiology is hepatitis C. Hepatitis C infection has been reduced to one case for every 3,300 units of blood transfused and is

expected to decrease further with more sensitive testing. The risk of human immunodeficiency virus is down to one case in every 225,000 screened units.⁹

Substantial investigation continues in the development of artificial blood substitutes. Perfluorocarbons are unavailable for use in trauma. Cell-free hemoglobin solutions from outdated red blood cells or bovine sources are under development for use in trauma.¹⁰ Unfortunately, none are currently approved for use outside of clinical trials.

It is unknown whether our first case would have lived had he received a transfusion. It is also unlikely that our second patient would have died without a transfusion. What is clear is that situations will arise where appropriate blood transfusions during evacuation from the battlefield can save lives. Controlling the bleeding is the most important maneuver. What to do next, when true resuscitation capabilities may be hours away, is the question. In an effort to meet this challenge, medical providers along with medical planners should formulate policies pertaining to emergent transfusion of blood products forward to the resuscitative treatment areas.

Conclusion

Current concepts of warfare are changing the landscape of military medicine. The use of Special Forces and the rescue of downed pilots significantly increase the land area for casualties. With injured service members far from resuscitative care, additional measures may be needed to increase their survival. Such measures may include blood transfusions performed by trained medics forward to medical treatment facilities.

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Force Protection--Biologic, Chemical, and Explosive Threats during Triage of Suicide Bombing Attacks

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ABSTRACT

DOD first responders should be aware of the new medical threats to both survivors and first response teams of a suicide bombing attack (SBA). Exposure to intended or unintended infectious agents from the bomber or other victims can increase the risk for long-term morbidity and mortality. Un-detonated bomb remnants impaled in cadavers, planned chemical releases, or secondary explosive devices can further increase the immediate risk. These threats warrant increased vigilance during field triage, transport, post resuscitative evaluation, and care. This article explores current events in regards to SBA as it exists in the literature and thoughts for the future.

Introduction

Special Operations Forces (SOF) medics, whether in garrison or deployed, may triage, treat, and transport survivors of a suicide bombing attack (SBA). This responsibility in austere locations is magnified due to the lack of available medical resources and support. SOF medics must consider current medical threats to survivors and to first response teams. Exposure to intended or unintended infectious agents from the bomber or victims presents significant risks. Un-detonated bomb remnants impaled in bodies, planned chemical releases, or secondary explosive devices further increase these risks. These threats warrant increased vigilance during field triage and resuscitation, transport, and post-resuscitative care. The Israeli medical community, due to their experience, has generated the majority of the medical literature in regards to a SBA and its consequences. This article explores current events in regard to SBAs and offers suggestions for medical countermeasures.

Current world events bring three interacting but distinct elements together: suicidal perpetrators, physiologic blast effects, and biologic contacts. Individually, these events are not historically unique, but together they create new challenges. From Samson's actions in Judges 16:30 to contemporary events in the Middle East, suicidal acts perpetrated for political or tactical results are well known.^{1,2} The medical literature on blast effects fills countless vol-

umes. The first scientific writings on physiologic blast effects were written by Pierre Jars and his contemporaries in the 18th century.³ The use of biologic agents during warfare has occurred multiple times over the past 2,000 years. Combatants have attempted to spread their afflictions to their enemies by dipping arrowheads in manure and decomposing bodies, tainting wine with the blood of lepers, polluting wells with corpses, and catapulting plague-infested bodies over the fortress ramparts.^{4,5} Medics can now experience a blending of all three of these elements.

Contemporary Israeli experience and reported countermeasures

Beginning in the late 1990s, literature began appearing on the medical effects of suicide bombings. While this initial information has been excellent, the rapid pace and location of world events has resulted in many of the medical "lessons learned" going underreported and unshared. Similarly, we do not have access to the medical details of all events reported in the media. For example, several hepatitis B-positive SBAs appear in Israeli medical literature, as well as an unconfirmed HIV-positive bomber in the press.⁶⁻⁹ Some of this information deserves special attention.

In 2001, a 31 year old woman who survived a SBA in Israel was directly exposed to hepatitis B.

During her radiographic evaluation, several high density fragments were noted in her right cervical subcutaneous tissues, left breast, pubis, and right hand. The particles were found to be the bomber's bone fragments and were surgically removed. The fragments were analyzed at the Israel Institute of Forensic Medicine and found to be positive for hepatitis B but negative for HIV. She was treated for hepatitis B exposure (details unknown) and eventually discharged home. Details of the patient's long term outcome are unknown.¹⁰⁻¹²

Human bone and tissue acting as missiles are a real threat. Tissue, with the addition of energy and a vector from the blast, yields a high kinetic energy missile. If suicide bombers or their victims have an infectious disease, a new threat from this human shrapnel emerges: the threat of infecting survivors and rescue personnel with chronic diseases.⁸ The Israeli Health Minister now requires survivors of SBAs to receive the hepatitis B vaccine as routine post-exposure protection.¹³ The use of hepatitis B immune globulin (HBIG) has not been discussed in the Israeli literature. Because of the infectious risk of human shrapnel and the medicolegal implications of SBAs in Israel, muscle samples of the bomber, or blood when available, are taken for hepatitis B, hepatitis C, and HIV testing.¹⁴ Serologic tests as well as molecular evaluation are now routinely done on bomber cadavers and have revealed several hepatitis B cases. The Israeli authors report some of the viral tests have been performed, not on fresh blood samples as some tests are designed, but on residual muscle and post-mortem blood from the bombers.¹⁴ In 2004 there have been multiple news reports concerning an unsuccessful SBA planned in Tel Aviv by an individual carrying HIV-tainted blood obtained from a Palestinian hospital.¹⁵⁻¹⁷ The infectious medical threat is current and real.

Traditional blast injuries can be divided into primary, secondary, and tertiary components and are well-described.¹⁸⁻²³ The secondary blast effects are of concern for exposure to biologic, chemical, and residual explosive materials. Secondary blast effects result from objects, including human tissue, being accelerated by the blast with resultant blunt trauma or penetration into victims' bodies. Peppering is described as small abrasions, hemorrhages, and lacerations to the victim's skin.¹⁴ Tissue fragments of the perpetrator or other missiles can be blown centrifugally and create wounds with both fragments of metal and the perpetrator's tissue embedded or peppered in

the victim's skin.¹⁴ Bombs can also have the addition of nails, screws, ball bearings, nuts, and bolts which create an entry site for infectious blood and tissue from the perpetrator or other victims of the blast.^{1,2,19,24,25} Detonators and unexploded ordinance have been propelled by secondary blast effects into body cavities of victims.¹⁴ Even though the victim may not survive, this poses a risk to first responders, mortuary affairs personnel, and forensic investigators.

The close proximity of the bomber to the detonation results in extreme fragmentation of the bomber's body.¹ In 2002, Israeli reports revealed that of 124 suicide bombers that underwent autopsy, only 12 were identified by visual recognition. After DNA profiling, fingerprints, and intelligence research, 80 of these still remained unidentified.¹⁴ Many times, the only remains of victims close to the detonation are pieces of scalp, vertebral column, abdominal and back skin, or only the lower extremities from the ischial tuberosity down.^{1,2,14} The extent of fragmentation of the body depends on both the size and location of the explosive relative to the proximity of the victims to the blast.

Planned secondary explosive devices are a well-known risk for first responders. Sniping of first responders has occurred in Israel and can be especially risky in urban areas where adjacent buildings provide concealment. Chemical agents strapped to a suicide bomber are also a potential threat. Unsubstantiated press reports exist of bombs laced with rat poison on missile fragments.⁸

Discussion and suggested countermeasures

Medical responsibilities of the SOF medic, in response to a SBA, include triage and the preservation of life, limb, and eyesight. He is also responsible for providing the commander with medical threat information; the threats listed above should be considered in the planning for the medical response to a SBA. Risk management is the key.

On the scene of a SBA, personal protective equipment (PPE) is an important consideration. Surgical gloves should always be worn when caring for trauma victims, since medical personnel may be called upon to treat wounded civilians or POWs. Eye protection and masks are ideal but may not always be available depending on one's location when the attack occurs. While lack of PPE does not prevent a SOF medic from performing his duties and responsibilities, exposure to body fluids or tissue from a SBA greatly increases his personal risk. Troops close to

ground zero require particular attention as their risk of exposure to tissue from the SBA may be greater there. Suicide bombers may intentionally include infectious agents in their plans; in certain geographic areas with high endemic rates of HIV and hepatitis B, the bomber may be unaware of his own infection. Host nation civilians and their military personnel who are collocated with US forces may also carry these chronic infections. They may serve as sources of infected human shrapnel if they are caught in the close radius of the SBA detonation.⁸ Unexploded ordinance (UXO) impaled in the living and dead can occur. If you suspect UXO present in a victim, leave it alone, inform all responders of this threat, and notify the explosive ordinance disposal (EOD) personnel.

Response personnel should pay attention to unusual odors and irritations of the eyes, respiratory system, and skin, and they should notify the on-scene commander if they are of concern. Burning plastics, fabrics, wood, and flesh will create many unusual, acrid, and unsavory odors. Bioenvironmental engineering (BEE) teams can assist with these assessments, but they may not be available immediately. Every unusual odor and substance cannot initially be evaluated in detail. SOF medical personnel should be aware that these risks exist, along with the possible need to respond if a chemical agent is suspected and detected.²⁵

Investigative or forensic resources may arrive to help in the evaluation but in the early post-bombing period, the initial medical team may be the only health authority. If the bomber was HIV positive, it would be prudent to start HIV post-exposure prophylaxis (PEP) medications as early as possible.²⁶ Casualties traditionally categorized as minimal (e.g., small lacerations from shrapnel or missiles) now require additional risk stratification for PEP. HIV exposure will not change their triage category, but it could alter their initial treatment and field disposition. If possible, they may be started on PEP medications in the field. Medical personnel should consider how the bomber's blood or tissue could be tested for certain viral pathogens with the appropriate operational security so PEP can be started for those in need. In some locations, a secure rapid laboratory evaluation may not be possible. Department of Defense (DOD) personnel in the field need rapid results without the risk of information leaks from civilian host-nation labs. This is particularly true for Special Forces. Medics in remote areas may be able to use the new rapid HIV tests in the field to have results in under a half hour. New off-the-shelf FDA-approved rapid HIV antibody tests, like the OraQuick® HIV 1 and 2 test, may be used for this purpose.

The OraQuick® system is fielded with several SOF units where risk of exposure to blood or body fluids is high, and the area of operations contains significant HIV prevalence (see USASOC Command Surgeon letter in the *JSOM* Spring 2004 issue). The kits are small and durable. A full discussion of the kit and some of its limitations is beyond the scope of this article. However, a small drop of blood could be obtained at the scene from the SBA cadaver and tested on the spot. Since this use is off-label and untested, and the HIV is not particularly robust after the host's death, this strategy requires further validation and is not how the test was intended to be used. While a positive test is probably reason to start PEP in persons exposed to the blood or body fluids of bomber or victims, a negative test does not completely rule out HIV infection. Confirmatory tests must be done in either case. Contaminants may be found at the scene of a SBA at a building, damaged motor vehicle, or in the street. The OraSure® kits have been tested with deliberately introduced contaminants such as burned wood, burned cotton, burned synthetic fibers, diesel fuel, and motor oil, all with good results. These contaminants may be found at the scene of a SBA at a building, damaged motor vehicle, or in the street. This testing is on-going to validate this type of off label/nontraditional use and is not yet complete or endorsed by the manufacturer.

The increased use of the hepatitis B vaccine for DOD personnel diminishes that particular threat. Forward deployed units without routine refrigeration will not have the luxury of hepatitis B vaccine or HBIG. Based on the author's current research, there is not a good off-the-shelf, rapid test for hepatitis B antigen at this time. Thus, based on the local risk assessment and troop exposure, the medic needs to consider sending bomber blood or tissue for laboratory testing for hepatitis B, hepatitis C, and HIV.

While these events may be historically rare for SOF, they are not improbable, and medical teams in other nations are already dealing with the effects of human fragments and toxic additives among SBAs. SOF medics should consider what their operating procedures would be in this scenario. In the future, the use of commercially available rapid HIV and other pathogen tests may improve the post-blast threat assessment and treatment options with the on-scene SOF medic being the first step in the medical investigative chain to improve force protection. Until that time, knowledge of developing threats should improve planning and risk management for medical forces in the field.

Major B. Clint is an AFSOC flight surgeon and is also board certified in Internal Medicine.

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CONTINUING MEDICAL EDUCATION TEST

Hands-On SOF Medicine: Using Therapeutic Adjuncts to Correct Structural Imbalances and Alleviate Myofascial Pain

1 CME or 1.2 CNE

JSOM



1. Which therapeutic adjunct would you choose to help correct a kyphotic thoracic spine?
 - a. rope
 - b. handheld adjunct
 - c. baseball
 - d. foam roll
2. You notice limited extension on the right hip, and you consider that the psoas on the patient's right side might be locked short. Which adjunct would you choose to mobilize the psoas?
 - a. rope
 - b. softball
 - c. inversion
 - d. Nola-Rola™
3. During assessment, you notice that the right anterior superior iliac spine (ASIS) is lower than the left, and the left posterior superior iliac spine (PSIS) is lower than the right. The sacroiliac (SI) joints appear locked in position, preventing free movement. Which tool is used to help correct pelvis torsion?
 - a. golf ball
 - b. Bodyball™
 - c. wedges
 - d. rope
4. Which adjunct directly and aggressively mobilizes osseous structures as well as myofascial units?
 - a. foam roll
 - b. wedges
 - c. inversion
 - d. Bodyball™
5. When you lie on this adjunct, it creates a stretch on the opposite side of the body.
 - a. foam roll
 - b. baseball
 - c. wedges
 - d. Bodyball™
6. Which improvised adjunct is a substitute for the foam roll?
 - a. tennis shoes (sole up)
 - b. rucksack (frame down) covered with a blanket
 - c. rolled pillow

7. Palintonicity, or evenness of tone, appears when the body approximates vertical alignment and the joints and girdles approximate horizontal alignment. Horizontals at the joints and _____ arise together.
- unencumbered patterned movement
 - freedom from pain
 - structural problems
 - compensation patterns
8. When following the “rules of thumb” for using therapeutic adjuncts and alleviating myofascial pain, which step should be done first?
- Movement education
 - Stretch “locked short” areas
 - Mobilize fascia and osseous restrictions
 - Strengthen “locked long” areas
9. One of the “rules of thumb” in treatment is mobilize fascia and osseous restrictions -- Use stretching, strengthening, and adjuncts to normalize spinal curves, establish evenness of tone, and easy balance.
- True False
10. If the whole person is unable to adapt to any intervention or series of interventions, the person will revert to their pre-intervention state of dysfunction, strain and disorder will be driven elsewhere in the system, or both.
- True False

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Hands-On SOF Medicine: Using Therapeutic Adjuncts to Correct Structural Imbalances and Alleviate Myofascial Pain

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| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. True False |
| 5. a b c d | 10. True False |

Editorials

The **All the World's a Stage—NGO Actors and SOF Military in Humanitarian Operations** article has generated the following two editorials.

Kevin Riley, PhD

Dr Betterton and Ms Davison's article, *All the World's a Stage—NGO Actors and SOF Military in Humanitarian Operations* provides an experienced and very contemporary view of the role of traditional relief organizations and provides realistic comparisons between military and NGO organizations. Understanding the motivation and values of the NGOs has become a growing necessity among military (particularly SOF) personnel providing civil and humanitarian assistance actions to nearly all parts of the globe.

The article correctly leads us to an appropriate conclusion that military understanding and cooperation with international and private relief organizations will be the key to reducing "cooperation gaps" and both parties can effectively be used in preventing future conflicts.

In 2003, in a similar response for better understanding and cooperation between the military and Non-Government Organizations, the Center for Disaster and Humanitarian Assistance Medicine (CDHAM) under the direction of its director, Dr Craig Lellwellyn, published *A Guide to NGOs – A primer about private, voluntary, non-governmental organizations that operate in humanitarian emergencies globally*. Written by Grey Frandsen, this guide was designed for uniformed services personnel and government (and international) employees and focuses on issues such as coordination, collaboration, logistics, and communication as important elements to understand when operating, collaborating, or communicating with NGOs.

CDHAM was created by Congress to address the need of improving the military response to disasters and humanitarian crises and to enhance the interaction between military and civilian organizations responding to such events. The NGO Guide is a product of that CDHAM mission.

For your free CD of the CDHAM primer "*A Guide to NGOs*" please email your request to **ngoguide@cdham.org**.

All The World's a Stage – and All the Actors are Acting

Warner Anderson, MD

In this issue of JSOM, Betterton and Davison discuss the interaction between the military and non-governmental organizations in complex emergencies. War is a complex emergency, and Operation Iraqi Freedom is right up there among them on the short list.

Prior to the Coalition's crossing the berms between Kuwait and Iraq in March 2003, Iraq was a relatively stable nation. Certainly, the three northern governorates ("provinces") had set up their own, primarily Kurdish, federated state with its own police, currency, and militia. Certainly, Saddam Hussein had manipulated the variably successful Oil-for-Food sanctions and used them to deprive and starve Shi'a and other minorities. Shortages were the by-word of the day, and had been for years. Iraq was essentially a failed state.

However, it was a *stable* failed state. Drug shipments were erratic under Saddam, and they were on the "push" system from Kimadia, the national medical warehouse system. So, if you were a hospital pharmacist, you might unexpectedly get a truckload of amoxicillin suspension and intravenous bags from Egypt, with incompatible IV administration sets from India. You did not get this because you ordered it; you got it because Kimadia had bought it and was reselling it to you. Your job was to find someone who actually needed it and would trade you the stuff you really needed for it.

Long and fascinating descriptions of this cobbled-together health care system could fill this journal – many of them a study in how *not* to do things. But for brevity, recognize that Iraq had licensing and training of professionals, career management, a level of state funding of health care, infrastructure to include sewage treatment, water, and electricity (although mostly for favored political and ethnic populations), immunizations, and so on. In fact – and this point is important – immunization rates rivaled or exceeded those of the United States.

Now, as Secretary of State Colin Powell may or may not have said, "You break it, you bought it."

In the days after the fall of Baghdad, anarchists became more and more brazen. They looted tons of health records and burned them in the hospitals. They stole ambulances, cars, and trucks belonging to the hospitals (public and private) and converted them to taxis. They came into the hospitals at night and stripped copper wire out of the walls to sell on the black market. They held up pharmacies at gunpoint and sold, not just narcotics, but all medications on the black market. They stole medical and capital equipment, and they terrorized health care employees.

And so on. Enter the NGOs and Civil Affairs from all directions, and the medical personnel of the warfighting units, as well.

Everyone in this drama, at least at the national level, understood that the situation was untenable, a "complex emergency." Before we got there, people could get health care (for the most part); after we got there, they couldn't. When President Bush recognized that we were an occupying power (ending with the handover in May 2004), the Coalition took on legal responsibility under international law for all aspects of government and the welfare of the occupied people.

To coordinate the health care, the CA battalion assigned to Baghdad held daily meetings in the Civil-Military Operations Center (CMOC). These were attended by the Army's line unit medical people, CA public health teams, NGOs, USAID, and other interested parties. Usually, they consisted of CA giving a sanitized intelligence report on the threat estimate of insurgents, a weather forecast (hotter today), and then a run-down of what CA and line units had done today and would do tomorrow. Then, the NGOs would have an opportunity to ask questions, present problems, alert us to outbreaks, talk about what they were doing, and so on.

Often, these afternoon meetings, with seventy or so people in a large room at 1600 with no fans going, would break up into accusations and counter-accusations. I was chief of the 352 Civil Affairs Command national-level Public Health Team, and I assigned a CA officer, LTC Marcos Mendez, to attend as our observer and representative. Marcos is an experienced CA officer with extensive active duty in SF, and in civilian life he is a nurse in a large hospital ICU. He is an astute observer of people and has a good nose for bullshit, yet blends into the crowd easily.

After about a week, I asked him about the different NGOs.

“Well,” he said, “the ones you can depend upon the most are Doctors Without Borders. They are predictable. They talk about this problem and that one, and if the group doesn’t do what they want, they threaten to walk out. But they come back the next day. Mostly, they do this when the media are there.” Indeed, when I attended the meetings, I saw them do that twice. Sort of a peace-at-all-costs philosophy, unapproachable by military authorities.

CARE had local, long-standing personnel working for it - an experienced coordinator who was always very serious about her job, and a British-trained Iraqi pharmacist who was very bright and very afraid that a Shiite uprising would turn the country into chaos. They had a warehouse complex near Kimadia, and were very supportive of our attempts to restore services – as we tried to support theirs. They did not share operational information with us, because they valued their neutrality. But they would tell us what areas needed HA supplies and were very concerned about the Iraqi state of health care.

The Red Cross worked well with us, but kept us at arm’s length in public. They scrupulously maintained their neutrality, but they understood the CA’s sincerity, resources, and expertise. They gave us much good information without ever crossing the line. They worked hard in the middle of the after-conflict, and some of them paid the ultimate price for their dedication and humanitarianism.

The International Medical Corps did much good, working with USAID and their own resources. They brought “Bud A,” a plastic surgeon from California, to Baghdad where he established relationships that eventually took several Iraqi plastic surgeons to University of Southern California for mini-residencies. Carrie was very helpful in assisting LTC Mendez and our FNP, CPT Amal Chatila, to set up the first-ever Iraqi National Conference on Nursing. They always took a low profile in Iraq, although a somewhat higher one in the US when it came to fund-raising. They did actual good deeds.

COOPI, an Italian-based NGO that performed sanitation work, was low-profile and interesting. Given that clean water and proper sewers historically do more than antibiotics in improving health, they had a vital and unrecognized role. They would go around Iraq testing water for contaminants and pathogens and pass the results to us and to the Ministry of Health. Their work made a real difference.

There were many more NGOs, all looking for a piece of the Iraq action. Some were, so it seemed, little more than *poseurs*, while most had significant interests and contributions. In the end, it was all about personalities, networking, communicating, and carrying a huge file card in your head detailing who might be likely to help where.

Of course, the situation has changed now, and the early optimism is largely gone. The struggle is now uphill, and many have left Iraq, citing security and the fact that they, themselves, have become targets in a war fought as much in the media as in the streets.

I started this piece two weeks ago – note the reference to CARE. As I now finish this, I watch the television for news of Margaret Hassan, one who stayed. Director of CARE in Iraq, she is now at the mercy, or lack of it, of an unknown group holding her hostage against Britain’s unlikely withdrawal of troops from Iraq. Irish-born, with British and Iraqi citizenship, and married to an Iraqi, she has spent 30 years in-country in HA, with the last ten running CARE.

Genuinely neutral and genuinely interested in the people’s well-being, her very life is now a pawn for the terrorist aims of anti-Western, anti-Iraqi people who prefer chaos, ignorance, and bullying over tolerance, dialogue, and self-help.

JOURNAL OF SPECIAL OPERATIONS COMMAND READERSHIP SURVEY

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The logo for "Expedient Medic" features the text in a bold, green, serif font on a dark red, ribbon-like banner. The banner is set against a background of a globe showing the Americas, with the banner appearing to wrap around it. The entire graphic is framed by a white, pill-shaped border with a drop shadow.

Expedient Medic

This article was developed by the Combat Medic Training Directorate and dispels myths about the use of tourniquets, discusses the proper use to stop bleeding, provides training tips, and recommends specific types. Published in the JSOM for widest dissemination per the request of USASOC-SG. A must read for deploying personnel. <https://www.us.army.mil/suite/doc/1252097>

Tourniquets: Lifesavers on the Battlefield

Donald Parsons, PA-C, LTC (RET), Thomas Walters, PhD

General Albert Sidney Johnston was one of the senior commanders in General Robert E. Lee's army at the battle of Shiloh on 7 April 1862. He was advised by his command surgeon that all troops should have a tourniquet issued to them prior to the battle. While leading his troops in the battle, General Johnston was wounded in a large leg artery and died from a severe hemorrhage, even though he had a tourniquet in his pocket that could have presumably stopped the bleeding and saved his life. Hemorrhage continues to be the leading cause of death on today's battlefield just as it was during the Civil War.

Although tourniquet use is discouraged by most medical training programs for use in the civilian community, they may be life-saving on the battlefield. The standard approach to hemorrhage control may become more difficult in combat because of factors like limited medical supplies, prolonged evacuation times, and the tactical situation. In Vietnam, 2,500 casualties died on the battlefield because they bled to death, and the only wounds these soldiers had were extremity wounds. While we have made major advances in medical technology we have not been able to decrease the number of deaths due to bleeding on the modern battlefield.

Today there is a new approach to care in combat. We have separated from the civilian approach to trauma and developed an approach that includes both good tactics and good medicine. Since hemorrhage continues to be the leading cause of preventable death we needed to rethink our approach to controlling this problem in combat. There needs to be a shift in our thinking. The days of not providing self-aid and just lying there and yelling "Medic!" are over. It is conceivable that a soldier may be wounded and no combat lifesaver or medic is available, or the tactical situation

may prevent them from attending to the casualty. We must have the ability at the individual soldier level to provide care at the point of wounding.

"The hemorrhage that takes place when a main artery is divided is usually so rapid and so copious that the wounded man dies before help can reach him."

*The Early Treatment of War Wounds
by COL H M Grey, 1919*

The use of tourniquets have proven to be the most effective means to stop bleeding in the combat environment; however, there is much confusion about the use of tourniquets among soldiers, medics, and medical officers on a number of tourniquet-related issues. What is an appropriate combat tourniquet? The current strap and buckle tourniquet in the inventory (NSN 6515-00-383-0565) does NOT work. Reports have been submitted from as far back as WWII that indicates this device is ineffective. If you find this device in your medical equipment, get rid of it. It does not work. Much work has been done to develop a tourniquet that does it all. It should stop bleeding easily, be applied with one hand, and be light and small enough to be carried on each soldier's web gear. To this day no device has been proven to meet all of these challenges.¹ However, we know that the old fashioned use of a cravat and windlass (stick) works very effectively. It is relatively inexpensive, small, lightweight, and if a small windlass is provided, you have everything you need to make a tourniquet.

Next we need to address when it is appropriate to use a tourniquet. In a combat situation if a soldier is wounded and still under effective hostile fire, a tourniquet is the most appropriate means to control bleeding. Why? When a soldier is wounded by

enemy fire, using direct pressure to stop bleeding may take several minutes, and while holding direct pressure on the wound, the soldier or medic is unable to do anything else. If a soldier is able to apply a tourniquet to himself, he may then be able to continue to return fire. *The best medicine on the battlefield is fire superiority.* It may be essential to the mission to have as many weapons trained upon the enemy as possible. In addition, it is difficult to maintain direct pressure on a wound while transporting a casualty under fire. To further emphasize this point, it is imperative for every soldier who may be involved in combat to have an appropriate tourniquet readily available at a standard location on their battle gear. This allows every soldier to be equipped and trained to stop bleeding on themselves or their battle buddy immediately. Other circumstances where tourniquets may be used are wounds where bleeding cannot be controlled by conventional means or traumatic amputations with severe bleeding, regardless of the tactical situation.

So now we know when to apply a tourniquet. How tight should it be? It needs to be tight enough to stop the bleeding completely. Few individuals appreciate how tight a tourniquet must be to stop bleeding, especially in the leg.

"In the case of lower extremity wounds, which give rise to the most severe hemorrhage controlled by tourniquet, it has been my observation, that too few doctors, much less their assistants, have a concept of the constricting pressure required about the thigh to abolish the flow of blood" Emergency Treatment and Resuscitation at the Battalion Level by MAJ Meredith Mallory, 1954.

It is a mistake to think that some bleeding is good because it will provide some blood to the limb. This is wrong; it can actually make the situation worse. The practice of occasionally loosening the tourniquet to get some blood to the limb frequently results in a dead patient. Do not do this.

How long can we leave it on? The myth from medical training in the past says that once a tourniquet is applied, the soldier is going to lose his limb. In reality, tourniquets can be left on for several hours without permanent damage being done. Thousands of orthopedic surgeries are performed every day with tourniquets left in place for up to two hours without limb damage or loss. However, the longer the tourniquet is left in place, the more potential damage that will ensue. If a limb with a tourni-

quet applied is kept cool, but not allowed to freeze, it extends the time a tourniquet can be left in place substantially. Nevertheless, we do not know at what point limb loss becomes inevitable; there are too many variables to consider.

So the next question should be, when do we remove the tourniquet? The rule of thumb should be to remove the tourniquet as soon as tactically and/or medically feasible. Does the tactical situation now allow time for more conventional means to control the bleeding, such as direct pressure, pressure dressings, or pressure points? Has there been a lull in the firefight or has contact with the enemy been broken? Are there now medical personnel available who have more experience in controlling hemorrhage with additional supplies like hemostatic bandages or hemostatic powder? If so, they can be utilized and the tourniquet can be loosened, but make sure the tourniquet is still in place in case the other means of hemorrhage control doesn't work. Also make sure that any resuscitation fluids are given BEFORE loosening the tourniquet.

The second myth we are busting is that the tourniquet should never be removed once applied. Now, there may be certain times when the bleeding cannot be controlled by any other means, and the tourniquet will need to be left in place. In these instances it is better to risk potentially sacrificing the limb rather than to lose the casualty to fatal bleeding. If the soldier is in shock, do not remove the tourniquet. Finally, if the tourniquet has been on for 6 or more hours, don't remove it.

So now we know that tourniquets are not the universal limb destroying devices we believed them to be in the past. How do we integrate their use into every soldier's common tasks? Unit leaders need to be accountable for this training, both in garrison and during their mission planning. They must ensure that every soldier is trained on the application of a tourniquet. The equipment for tourniquets, or actual tourniquets that work, need to be issued to all soldiers in both combat arms and support units. Reinforced training needs to be placed on the training schedule and every soldier must demonstrate his skill in applying an effective tourniquet. If we can integrate this task into our daily business we can save more soldiers' lives on the battlefield. Statistically, up to 9 percent of soldiers killed in action (KIA) die from extremity bleeding. These are lives that we should be able to save.

STEPS FOR IMPROVISED TOURNIQUET APPLICATION:

1. Place the tourniquet between the heart and the wound, leaving at least 2 inches of uninjured skin between the tourniquet and the wound.
2. Wrap the tourniquet around the extremity.
3. Tie a half-knot on the anterior surface of the extremity.
4. Place a stick or similar object on top of the half-knot, tie an additional full-knot on top of the stick, and twist until the bleeding stops.
5. Secure the stick or windlass in place so it will not unwind.

Mark the casualty with a "T" on their forehead. Record the date and time the tourniquet was applied on a field medical card or anything that can be transported with the casualty. If an amputation is present, put a dressing on the stump, and try to preserve the amputated part. Transport the casualty to a medical facility as quickly as possible. Do not cover the tourniquet while transporting the casualty.

We must put this plan into action. We must place a special emphasis on this training at the individual Soldier level, especially now given the events in the world today. We must equip our Soldiers with the supplies to save their own and their battle buddies' lives. Remember that extremity hemorrhage is the leading cause of preventable death on the battlefield.

RECOMMENDATIONS

The United States Army Institute for Surgical Research evaluated nine tourniquets; three were effective in 100% of the subjects. These included one pneumatic and two strap type tourniquets: the Emergency Medical Tourniquet (EMT) (Delfi Medical Innovations); the Combat Application Tourniquet System (CATS) (NSN: 6515-01-521-7976) (Phil Durango, LLC); and the Special Operation Forces Tactical Tourniquet (SOFTT) (NSN: 6515-08-137-5357) (Tactical Medical Solutions LLC), respectively.

The two strap tourniquets use a built-in windlass as the mechanism for tightening. Of the two successful strap type tourniquets, the CATS was less painful, easier to use, smaller, and lighter than the SOFTT (59 grams vs. 160 grams). The design of the SOFTT limited the ability of the windlass to tighten the tourniquet, i.e., it was limited to approximately 3 turns. This limitation can be overcome through training the user to pull the tourniquet snug before attempting to tighten with the windlass. The EMT pneumatic tourniquet was wider and thus significantly less painful than any device tested and is much less likely to induce nerve damage compared to either of the strap tourniquets. The EMT weighs 215 grams and when packaged is similar in size to the SOFTT.

Based on these facts it is recommended that the CATS be issued to each individual Soldier, and the EMT pneumatic tourniquet be considered for issue to combat medics. Further, it is recommended that the EMT be issued for all medical evacuation vehicles and echelon I to III medical facilities.

The complete USAISR findings can be found at: <https://www.us.army.mil/suite/doc/1252084>

View a picture of the CAT tourniquet at:

<https://www.us.army.mil/suite/doc/1252083>

FOOTNOTE

1. A number of different tourniquets are commercially available on the internet through medical suppliers, and, along with many "homemade" models, are in circulation among Soldiers. None of these have been tested and proven to work in severely bleeding limbs. Strap and buckle tourniquets of any kind will not work satisfactorily in the leg. A tourniquet must have some form of mechanical aid, such as a windlass, ratchet, or cam, to generate sufficient tension to control bleeding in the lower extremity.

The logo for the 'Correspondence' section is a black rectangular box with a double-line border. Inside, the word 'Correspondence' is written in a large, white, cursive font. Below it, the subtitle 'Letters to the Editor & Apologies to the Readers' is written in a smaller, white, sans-serif font.

Correspondence
Letters to the Editor & Apologies to the Readers

We would like to thank you for all your comments on the Readership Surveys provided in each JSOM. Below are a few of the comments you have sent in on what you would like to see included into the JSOM. Keep in mind, this is your journal, **by you –for you!** In order to get what you want out of the JSOM, you must all submit. Remember, your knowledge and experiences benefit all. Keep the surveys coming!

I would like to say that although I am a doc and your CMEs are directed at 18Ds, I use the info routinely in my “locum tenens” practice in “austere” environments. We all need all the help we can get.
LTC, MD

You guys are doing an incredible job! Keep up the good work.
SSG, 18D

Inclusion of some more science-based literature. Interesting case reports or new studies with direct operator application should be the primary goal of the SOCOM docs to get these folks to publish in the JSOM.

CPT, MD

Articles on issues about medial (trauma) procedures, true life or lessons learned. Also, equipment used, true life or lessons learned.

MGySgt, 8654

Develop more interaction among readers regarding medical experiences and lessons learned, especially medics currently deployed and deploying. I would like to see a discussion of which antibiotics to take to the field for the least weight (volume) and the widest coverage.

CPT, 62A

Get it out to all SOF medics!

SFC, 18D

A review of available courses, i.e. OEMS, CMC Ropes and Rescue, SOMA Finding out whether these courses are worth the money would be useful.

MSgt, PJ



Special Operations Medical Association Conference

In collaboration with the Upper Chesapeake Health and the Chesapeake Health Education Program, Inc.

December 13-16, 2004

Hyatt Regency Tampa

Two Tampa City Center, Tampa, Florida

For those of you that have been long time Special Operations Forces medics and SOMA members, welcome back! For the "first timers," recent members of tactical EMS, and our international participants, this is an exciting meeting. This is the only meeting in the world that combines first class academic, practical, "I was there," and emerging technology presentations coupled with great camaraderie and fellowship based on our shared and intense military and civilian medical experiences and mission.

The goal for this conference is to have a range of presentations and activities that are useful for the diverse membership of SOMA, and to enhance our medical skills so we can provide great medical care to those that we care for. Our membership spans military, civilian, and international personnel, from basic medic to physician specialists, with one year to over 30 years of experience in Special Operations, tactical EMS, emergency medicine, and trauma. As with many conferences, the learning goes beyond the lecture rooms. It goes to learning about new products from our vendors to sharing experiences and knowledge among the participants. We have much more in common as mission oriented "medics" than the language or color of our uniforms that sometimes divides us or makes communications difficult.

GENERAL CONFERENCE INFORMATION

Statement of Need

The planning committee for this activity has determined that our SOF assets require accurate, timely, and mission specific training. Such training must now extend beyond the academic to include the specifics of practicing field medicine in the operational area.

Intended Audience

This educational activity is designated for physicians, military SOF personnel, and their civilian counterparts. No special prerequisites are required to attend this educational activity.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Describe and review lessons learned from Operations Enduring Freedom and Iraqi Freedom.
- Perform field medical skills expected from SOF and tactical EMS during deployment.
- Understand the position of the military in operations other than war.
- Describe and manage operational aeromedical problems.
- Describe and review lessons learned from Afghanistan and Iraq.
- Understand homeland defense initiatives.
- Describe the Special Operations capabilities of other services and in other countries.

Accreditation Statement

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 the joint sponsorship of Upper Chesapeake Health and the Chesapeake Health Education Program, Inc. Upper Chesapeake Health is accredited by the Accreditation Council for

Continuing Medical Education to provide continuing medical education for physicians and takes responsibility for the content.

Credit Designation

Upper Chesapeake designates this educational activity for a maximum of **30** hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Continuing Medical Education Credit

Registrants will be issued CME certificates at the SOMA desk at the close of the conference or on the last day you attend. None will be available after the conference. Please make sure your departure day plans include a few minutes at the SOMA desk to pick up your certificate.

****NEW REQUIREMENT FOR PHYSICIANS****

Physicians are now required to sign in every day for which they expect to receive Continuing Medical Education Credit. These sheets will be on a back table in the Regency Ballroom, and will remain in place all day. Only physicians should sign this roll.

EMT and Paramedic Qualified Personnel

The USSOCOM Surgeon's Office will provide special CME certificates to all military EMT and Paramedic qualified personnel, which are to be used for re-certification with the National Registry of Emergency Medical Technicians. These are separate and distinct from the CME certificates granted by Upper Chesapeake Health to all conference participants. Public and Federal civilian agencies may request these CME certificates as well, but if they are state certified or licensed, they should check with their state agencies prior to submitting USSOCOM-provided certificates. USSOCOM is not liable for individuals' financial burden or retribution that may occur from state EMS agencies. Personnel seeking these certificates must request a **USSOCOM CME Evaluation Sheet** at the SOMA registration desk, and fill this out during the course of the conference. It must be returned and exchanged for a CME certificate at the close of the conference. Participants will not receive a certificate without the evaluation forms. These can also be returned by mail within 2 weeks, to USSOCOM/SOCS-SG, Attn: MSgt Bob McCumsey, 7701 Tampa Point Blvd, MacDill AFB, FL 33621, or fax returned at 813-828-2568 (DSN Fax 299-2568). MSgt McCumsey can be reached at 813-828-5043 or 5442.

Policy on Disclosure

Alliance between a speaker and any commercial organization providing funding for this program must be disclosed for the purpose of determining the presence of bias or influence over the educational content. Detailed disclosure will be made in the course handouts.

Registration

Registration can be accomplished on site in Tampa. A registration fee of \$100 for physicians, \$60 for non-physician officers, and \$40 for enlisted medics and civilians is payable at the sign-in desk in Galleria B, which will be manned Sunday afternoon and evening and daily thereafter. All attending must register although speakers, exhibitors, and gold card members are exempt from registration fees.

Accommodations

A special room rate of \$93.00 single or double, and \$118.00 triple or quadruple, has been provided for the conference. However, the room block is limited. When it is filled, the rate may be higher. Also, the **cut-off date for this rate is November 13th**. The number to call for reservations is 813-225-1234 which should be called 8:00am-5:00pm ET days. The Hyatt 800 number will not be able to access the SOMA room block.

Ground Transportation

Dollar Rent-A-Car has been selected as the official car agency for the conference. Their special group rates are good for 1 week before the conference, and include unlimited mileage. Economy cars are \$24.00 per day or \$120.00 per week, with similar discounts on larger sizes. Our Group name is **CD#PJ4001** and the central reservation number is 1-800-800-4000, or www.dollar.com.

An airport limo will be offering transportation to/from the airport on a 24-hour basis at a charge of \$9 from the airport and \$7 from the hotel to the airport. Advanced reservations can be made by calling 1-800-282-6817, or you can present yourself to the Limo check-in desk at every baggage claim area.

Uniform Requirements

The appropriate uniform for wear on opening day is the Class A uniform or equivalent for the other services. The Class B or equivalent is appropriate for the subsequent days. Presenters should wear Class A on the day they speak. Business casual is recommended for civilians. **EMT duty uniforms, BDUs, jeans, collarless shirts, or athletic attire are not permitted in the conference rooms.** Mess dress or formal attire for Mess Night is neither expected nor encouraged.

Mess Night

This year's Mess Night follows the close of Tuesday's program. This is an excellent opportunity to meet informally with speakers and exhibitors while enjoying a first class buffet. The musical portion of the program will be provided by the world champion City of Dunedin Pipe Band. The bar will open after the head table is seated.

General Membership Meeting

A general membership meeting will be held Monday afternoon after the last lecture for the purpose of reporting board actions to the membership, hearing the Treasurer's report, and any new association business.

Acknowledgment of Commercial Support

The Special Operations Medical Association gratefully acknowledges the unrestricted educational grants provided by our exhibitors. They will be listed in the conference program.

The SOMA Disclaimer

The Special Operations Medical Association (SOMA) is a private organization that is not sponsored by USSOCOM or any other departments or agencies of DOD or local, state, or federal government. Speakers and exhibitors at the annual SOMA conference represent themselves and are solely responsible for their content. Their presentations and displays do not represent concepts, policy, or the official position of USSOCOM or any other departments or agencies of DOD, or local or state government. Presentations and displays at the annual SOMA conference does not constitute endorsement, concurrence, validation, or official positions of SOMA, USSOCOM, or any other departments or agencies.

SOMA 2004 AGENDA

Saturday, Sunday 11-12 December

0800-1700 Component Surgeons meetings
1300-1700 Atrium **Conference Registration**

Sunday, 12 December

1700 Esplanade 1 SOMA Board of Director's
Dinner (invitation only)

Monday, 13 December

0900-1700 Atrium **Conference Registration**
0700-1700 Regency 1 **Exhibitors**
0800-0815 Regency 2-7 **Administrative Remarks**
0815-0830 **Commanding General's Welcome**
Commander, USSOCOM
0830-0845 **SOMA President's Remarks**
0845-0935 **TBA**
VADM Richard H Carmona
The Surgeon General
Washington, DC
0935-1025 **Joint Combat Medical Support**
RADM Donald C Arthur
Surgeon General, US Navy
Bethesda, MD
1025-1045 **BREAK**
1045-1135 **Navy Medical Support of ORF and OIF**
Capt Steve Temerlin, MD
Chemical Biological Incident Response Force
4th Marine Expeditionary Brigade,
Indian Head, MD

1135-1300 **LUNCH**
1135-1300 Esplanade 1 **SOCOM Surgeon's Lunch**
(Invitation only)
1300-1350 **The Role of Sleep Deprivation**
on Human Performance - Pushing Thru the Drone Zone
Captain Garry Goff
American Airlines
Dew Airport, TX
1350-1440 **German Airmobile Modular System**
And Medical Evacuation
COL Juergen PG Canders
Commander, Immediate Reaction Forces
CPT H Carsjens, CDR 2nd Coy
Bundeswehr, Leer, Germany
1440-1530 **NORTHCOM in Homeland Security**
COL John A Powell
US Army NORAD-NORTHCOM
Peterson AFB, CIL
1530-1545 **BREAK**
1545-1635 **Medical Aspects of Counter-terrorism**
In Israeli Special Operations
CAP Yair C Schindel, MD
Medical Director, NSWC, IDF
Tel Aviv, Israel
1635-1725 **Everything and the Kitchen Sink: Civil**
Affairs Medical Operations in Afghanistan
COL Dalton E Diamond, MD
Deputy Surgeon, USASOC
Ft. Bragg, NC

**USSOCOM Award presentation
SOMA Membership Meeting follows**

Tuesday, 14 December

0700-1700 Atrium **Conference Registration/CME Pickup**
0700-1700 Regency 1 **Exhibitors**
0800-1200 Esplanade 1 **Breakout: Combat Medical Module**
MSG Corey Russ, Moderator
0800-0850 Regency 2-7 **The Pathophysiology and Treatment of Burns**
Albert J Romanosky, MD
Emergency Department
Franklin Square Hospital
Baltimore, MD
0850-0940 **The Chemical Biological Incident Response Force**
CAPT Steve Temerlin
Senior Medical Officer
Chemical Biological Incident Response Force
4th Marine Expeditionary Brigade,
Indian Head, MD
0940-1000 **BREAK**
1000-1050 **Civil Affairs and Counter –Narcotics**
Michael D Kennedy
Special assistant to DHS/ICE Director of Operations
US Senate Caucus on International Narcotics Control
1050-1140 **Tactical Combat Casualty Care 2004**
Stephen D Giebner, MD
Chairman, Committee on Tactical Combat Casualty Care
SWMI, NAVSUBASE, San Diego, CA
1130-1300 **LUNCH**
1130-1300 Esplanade 2 **USASOC Surgeon’s Lunch**
(Invitation only)
1300-1730 Regency 2-7 **TEMS Module**
J David Davis, Moderator
1300-1350 **Airway and Hemorrhage Control Under Fire**
D C Heath, Jr.
Director of Operations & Training
Tactical Element, Inc
Winston Salem, NC
1350-1440 **Dynamic Bone: Stress Fracture Prevention, Evaluation & Comprehensive Treatment.**
LCDR Michael D Rosenthal
Head, Physical Therapy & Sports Medicine
Naval Special Warfare Center
Coronado, CA
1440-1500 **BREAK**
1500-1550 **All the World’s a Stage: NGO Actors and SOF in Humanitarian Operations**
Dale C Betterton, MD, FAAFP

1550-1640

1640-1730

1830-2030

Wednesday, 15 December

0800-1700 Atrium **Conference Registration/CME Pickup**
0800-0850 Regency 2-7 **Civilian EMS Module**
Al Romansky, MD, Moderator
0850-0940 **Civilian Training Opportunities: The Real Thing and the Sophisticated Mannequin**
Richard Alcorta, MD
State EMS Medical Director, MIEMSS
Baltimore, MD
0940-1000 **BREAK**
1000-1050 **Wilderness Medicine: Improvised Care**
Fabrice Czarnecki, MD
Family Practice, Franklin Square Hospital
Baltimore, MD
1050-1140 **ICS/IMS and the Civil/Military Goal of Interoperability**
Donald H Hiett, Jr.
Assistant Fire Chief (Ret)
Atlanta Fire Department, Atlanta, Ga
1140-1300 **LUNCH**
1130-1300 Esplanade 2 Force Medical Officers Lunch
(Invitation only)
Esplanade 1 AFSOC Surgeon’s Lunch
(Invitation only)
1300 Regency 2-7 **International Perspectives**
Col William Bograkos, Moderator
1300-1350 **Role of the UK Ambulance Service in Emergency & Disaster Response**
Judith M. Fisher, MD
Martinez, CA
1350-1440 **Tactical Emergency Medical Support in the UK**
John Hall, MD
Hon, Lecturer in Emergency Care
University of Birmingham, UK
1440-1500 **BREAK**
1500-1550 **Pediatric Medical Emergencies in the Operational Environment**
Guillermo Pierluisi, MD
Associate Professor, Dept of Emergency Medicine
Medical College of Georgia, Augusta,GA

Dorthy M Davison, MSN, FNP
International Medical Alliance
Dodge City, KS

A Prototype for SOF Medic Training
LTC Robert D Harrington, DMD, MPH
Weston, MA

Medical Countermeasures against Radiation
COL David G Jarrett, MD
Director, Armed Forces Radiobiology Research Inst
WRAMC, Washington, DC
Panel Discussion follows last speaker
Mess Night Banquet

1550-1640 on Terrorism	Special Ops Medicine in the Global War CAPT Frank Butler, MD Command Surgeon, USSOCOM MacDill AFB, FL	1050-1140 Management of Hand Patients in an Afghanistan UW Clinic SFC J Kyle Hill Utah Army National Guard Elk Ridge, UT
1640-1730 Provider	Terrorism and the Role of the TEMS Scott Sheldon, EMTP S.E.R.T. Group International Reseda, CA	1140-1300 LUNCH
1830-2000	Esplanade 2 USSOCOM Dinner (invitation only)	LAST CHANCE TO PICK UP YOUR CME FROM REGISTRATION DESK--NONE WILL BE AVAILABLE AFTER 5:00 PM
Thursday, 16 December		1300-1350 Trauma Resuscitation and Tactics: Refinement and Field Use Maj Alan Murdock Department of Surgery Wilford Hall Medical Center Lackland AFB, TX
0800-1700 Pickup	Atrium Conference Registration/CME	1350-1440 Combat Aeromedical Evacuation in the Low Intensity Conflict COL Uriel Y Dreyfuss Israel Air Force Rescue Service Haifa, Israel
0800-0850 Management for Pre-Hospital and Tactical Operations	Regency 2-7 Advances in Airway Richard Schwartz, MD, Interim Chairman Dept of Emergency Medicine Medical College of Georgia, Augusta, GA	1440-1530 TBA CDR Ken Kelly Medical Dept, Seal Delivery Vehicle Team One Pearl City, HI
0850-0940 Pain In the Tactical Athlete	Prevention & Management of Back Robert C Smith, DVM, MD Medical Director, Louisiana Tactical Medical Services Alexandria, LA	1530-1620 “POLAD” and the Surgeon Marshall P Adair Political Advisor to Commander, USSCOM Dept of State Washington, DC
0940-1000 1000-1050	BREAK Crush Syndrome Eric C Nager, MD Emergency Medicine Franklin Square Hospital Baltimore, MD	Adjourn

Tactical Element Courses

SPECIAL OPERATIONS CASUALTY MANAGEMENT COURSE

22-24 FEB 05 / 29-31 MAR 05 at the Federal Bureau
of Prisons / Federal Correctional Institution



TACTICAL EMERGENCY MEDICAL OPERATOR/ TACTICAL SEARCH AND RESCUE

17-21 JAN 05 / 18-22 APR 05 Tactical Emergency
Medical Operator Land Force Central Area
Training Centre / Meaford, Ontario, Canada

A conventional medical first responder course is great to address injuries when the incident is over with. But what do you do when the incident is on-going, the threat is still active, and you have casualties?

Special Operations Casualty Management is an intense twenty-four hour program of instruction providing the tactical operator possessing limited or no prior medical training the necessary concepts and skills to deliver casualty care during tactical operations.

On the outskirts of beautiful Savannah, Georgia, Tactical Element is once again returning to the training facilities of FCI-Estill on two sets of dates to deliver the Special Operations Casualty Management course!

Special Operations Casualty Management is an intense three day program of instruction providing the tactical operator possessing limited or no prior medical training the necessary concepts and skills to deliver casualty care during special operations. With the potential for effective hostile fire/threat, the Special Operations Casualty Management course enables non-medical personnel to apply practical lifesaving techniques and basic level medical knowledge, skills, and equipment familiarity required to mitigate casualty care until the arrival of advanced medical care or until the casualty can be safely extracted to a receiving medical treatment facility.

Personnel may be required to respond immediately to any casualty situation during tactical operations. This training is particularly applicable to personnel deployed to remote sites or operating in denied environments including small unit tactical operations. This training provides instruction and practical application of casualty assessment, identification, and treatment of common traumatic injuries, and management of common operational medical considerations.

Training consists of 24 hours of instruction. Skill labs follow lectures to reinforce the modular instruction. Training also includes essential skills utilization in scenarios frequently encountered during the individual's performance of duty, as well as practical skills applications during performance labs.

Tactical Emergency Medical Operator is a five day program of instruction preparing law enforcement officers, security specialist, fire fighters, and emergency medical services personnel assigned to and/or supporting law enforcement and/or military special operations in a multitude of urban environments, and rural, austere, remote environments. TEMO targets operators and support personnel of tactical operations or special operations teams, delivered in forty-eight hours of day and night operations comprised of classroom lecture and practicum, followed by field training exercises. TEMO continues forward regardless the weather. **How you train is how you perform!**

Course topics include, but are not limited to:

- Advanced Airway Techniques
- Anti-Personnel Devices (including Improvised Explosive Devices)
- Aspects of Wound Ballistics
- Tactical Operations (TACOPS)
- Command and Control
- Role and Responsibilities of the Tactical Emergency Medical Operator
- Equipment Considerations
- Pre-Mission Medical Threat Assessment
- Remote Assessment / Remote Mentoring
- Tactical Combat Casualty Care

This year's emphasis...

COLD WEATHER training!

Tactical Search and Rescue (TACSAR) provides the knowledge, skills, responsibilities, and the equipment required for operators who are assigned to field operations during a tactical search and rescue mission. The TACSAR program of instruction also provides student with field training exercises and missions where the students are required to possess the prescribed equipment during daylight and nighttime field operations. Four major areas of instruction include: survival, search, rescue, self-aid, and casualty care. Casualty care and self-aid focus on the rural austere tactical environments.

On the shores of Owen Sound in beautiful Ontario, Canada, Tactical Element is once again returning to the training facilities of Land Force Central Area Training Centre in Meaford, Ontario to deliver two of the Tactical Emergency Medical Operations Series courses ... Tactical Emergency Medical Operator and Tactical Search and Rescue!

A minimum of 12 students is required for the course to proceed. Maximum capacity for this course is restricted to 30 students. Tactical Element maintains a strict 6:1 student-to-instructor ratio.

Tactical Element
380-H Knollwood Street · Suite 140
Winston Salem, NC 27103-1840.
Telephone: 336-945-2289
E-mail: info@tacticalelement.cc.
Web Site: <http://www.tacticalelement.cc>

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. I have not read each selection personally. Its intent is to present a concise list of the vast array of reading material available that pertains to the mission of Special Operations - both past and present.

Every attempt is made to maintain the list's integrity with respected and legitimate works. Readers who feel a selection does not merit inclusion are encouraged to contact me with disputes. I also strongly encourage readers to write a short review for the books they have read and/or have personal first hand knowledge concerning a specific selection. This will help maintain a high degree of content validity.

I am happy to submit your comments/reviews on your behalf if you prefer to not write directly to the JSOM editor staff. I can be contacted at lenblessing@comcast.net.

Len Blessing

TITLE	AUTHOR
00:19:57	Dave F Stafford
A Concise History of US Army Special Operations Forces, with Lineage and Insignia	Geoffrey T Barker
A Tear For Somalia (Written by a Brit who married a Somali woman while serving as a member of the British Camel Corps after the end of WWII. Not a history, but it does give insight into Somali society.)	Douglas T Collins
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
About Face	David H Hackworth (Col)
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
American Guerrilla (WW II US led guerrillas in Phillipines)	Unknown
Band of Brothers (A great story about "E" Company, 506th PIR, 101st ABN Division in WWII.)	Stephen Ambrose
Battle for the Central Highlands: A Special Forces Story	George E Dooley
Beyond Nam Dong	Roger Donlon
Black Eagles (Fiction)	Larry Collins
Blackburns Headhunters (Part of a series of books on the area from Turkey to Tibet. Well researched and an excellent view of the region, its history, and various societies that live within the region.)	COL Donald Blackburn
Blackjack -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	Joe R Garner (SGM Ret)
Covert Warrior	Warner Smith
Danger Close (Non-fiction. SF member charged with murder in a bar fight within 3 days of graduation from the Q Course.)	Mike Yon
Edward Lansdale: The Unquiet American	Cecil B Currey
Elite Warrior	Lance Q Zedric

TITLE	AUTHOR
Fighting Men: Stories of Soldiering	Jim Morris
Fire Your FPL's	Mike Di Rocco
Five Fingers	Gayle Rivers
Five Years To Freedom	James N Rowe
Flags of our Fathers	James Bradley & Ron Powers
Foreign Devils on the Silk Road	Peter Hopkirk
(Part of a series of books on the area from Turkey to Tibet. Well researched and an excellent view of the region, its history, and various societies that live within the region.)	
From OSS to Green Berets	Aron Bank (COL Ret)
Ghost Soldiers: The Epic Account of World War II's Most Dramatic Mission (Ranger operation to free POWs in the Philippines)	Hampton Sides
Greatest Rescue Mission (Ranger operation to free POWs in the Philippines)	
Green Berets At War	Shelby L Stanton
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It Doesn't Take A Hero	Charles M Simpson III
	Norman H Schwarzkopf (GEN Ret) & Peter Petre
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
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Laos: War and Revolution	E M Nathanson & Aaron Bank (COL Ret)
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Night Jungle Operations	

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Night of the Silver Stars: The Battle of Lang Vei 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.)	William R Phillips Hiroo Onoda
Once A Warrior King: Memories of an Officer in Vietnam	David Donovan
One Day Too Long	Timothy N Castle
O O T W Target Cuba	Robin Moore & JC Lamb
Operation Vulture	John Prados
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Parthian Shot	Loyd Little
Pathfinder: First In, Last Out (A very well written account of Richie Burns' first tour in RVN, during which he provided support to a Mike Force mission, and which describes other activities very similar to SF missions during the war.)	Richard C Burns
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, LRP's, and Rangers in Vietnam, Book I	Gary A Linderer
Prairie Fire (Fiction)	Kent White
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Rangers at War: Combat Recon in Vietnam	Shelby L Stanton
Reflections Of A Warrior	Franklin D Miller
Rescue Of River City	Drew Dix
Return of The Enola Gay	Paul W Tibbets
Return With Honor	Scott O'Grady (Capt) & Jeff Coplon
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Seven Pillars of Wisdom (Middle East insight)	TE Lawrence
SF Bibliography: Collection of articles and other readings with Special Forces topics	Radix Press/Dan Godbee
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Shadow Warriors: Inside the Special Forces	Carl Stiner & Tomy Koltz
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Special Forces, the US Army's experts in Unconventional Warfare	Caroll B Colby
Special Forces: A guided tour of US Army Special Forces	Tom Clancy & John Gresham

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Spies And Commandos	Kenneth Conboy
Stolen Valor	B G Burkett & Glenna Whitley
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The Devil's Guard (A non-SF book; a good read and supposedly historically accurate. Covers the war from the viewpoint of the ex-Nazi's who were in the French Foreign Legion fighting the Viet Minh.)	George R Elford
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The Green Berets in Vietnam, 1961-71	Francis J Kelly
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The Protected Will Never Know	Leigh Wade
The Price of Exit (Helicopter pilot, Lam Son 719 and CCN)	Tom Marshall
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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
The Sorrow of War: A Novel of North Vietnam (This is a work of fiction with many facts written by a NVA Officer.)	Bao Ninh
Tiger the Lurp Dog (Fiction)	Kenneth Miller
Tragedy in Paradise: A country Doctor at War in Laos	Charles Weldon, MD

TITLE	AUTHOR
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Who's Who From MACV-SOG	Stephen Sherman

Med Quiz

Picture This....

Daniel J Schissel, MD

During your routine mission prep you ask your Team Leader to be your demonstrator for IV fluid resuscitation. As you prepare his arm you find this lesion (pictured below). He is a 31-year-old white male from the farmlands of Iowa. He is very healthy, has no allergies, and is only taking doxycycline.



Question 1:

Using the primary lesion definitions outlined in your SOF medical handbook, how would you describe the morphology of this lesion?

Question 2:

What does the mnemonic “ABCD” for evaluating pigmented lesion represent?

Question 3:

What is your differential diagnosis for this pigmented lesion?

Answers:

Question 1:

Morphology: This is an asymmetric, notched, bordered, multicolored plaque with a central red nodule.

Question 2:

The mnemonic “ABCD” for evaluating pigmented lesions:

“A” – asymmetrical, “B” – border irregularity, “C” – color variegation, and “D” – diameter greater than 6mm.

Question 3:

The differential diagnosis would include seborrheic keratosis, pigmented basal cell carcinoma, atypical nevus, and malignant melanoma.

Malignant Melanoma

Melanoma is a malignant tumor arising from melanocytes. The incidence of malignant melanoma is rising faster than all other cancers and is among the most common types of cancer in young adults.¹ The lifetime risk for developing melanoma in US citizens is currently estimated to be 1 in 75 and rising. In the 1980s, the lifetime risk was 1 in 250. In the year 2000, it was estimated in the US that 7,700 Americans would die from malignant melanoma. Simply restated, that is one American lost every 68 minutes to malignant melanoma.²

The best initial clinical aid to the rapid identification of melanoma in a field setting is the mnemonic ABCD. The earliest of these clinical signs is probably color variegation. The only time red, white, and blue is not “cool” is when it involves a skin lesion! Asymmetrical, irregular bordered areas that become very dark, or which seem to lose pigmentation should raise one’s index of suspicion. Early melanomas tend to be flat with a nodular component within the lesion representing the vertical or penetrating growth phase of the melanoma (as noted in the lesion picture above). Lymphadenopathy in the vicinity of a suspicious lesion is extremely worrisome for the development of metastasis.

The most appropriate plan for suspicious lesion while deployed remotely would be to contact a consultant via derm.consult@us.army.mil with a good morphologic description of the lesion and a macroscopic digital photo as you plan for evacuation. If evacuation is not possible for an extended period of time (weeks), an excisional biopsy with 5-10mm margins around the entire tumor should be performed. Freeze or store the tumor in formaldehyde if available and evacuate the patient with the biopsy as soon as possible.

The identification and appropriate response to risk factors for the development of malignant melanoma are paramount in our fight against this growing killer. In our present areas of operation the main environmental risk factor is excessive exposure to ultraviolet radiation (natural sunlight). The pale skinned, poor tanning, light haired, freckled, and light-eyed individuals on our teams are even more at risk. The implied task for every Commander in OIF and OEF is unrestricted support of maximal protective measures (application of sun block, sleeves down, and the authorization of the “booney” cap).³

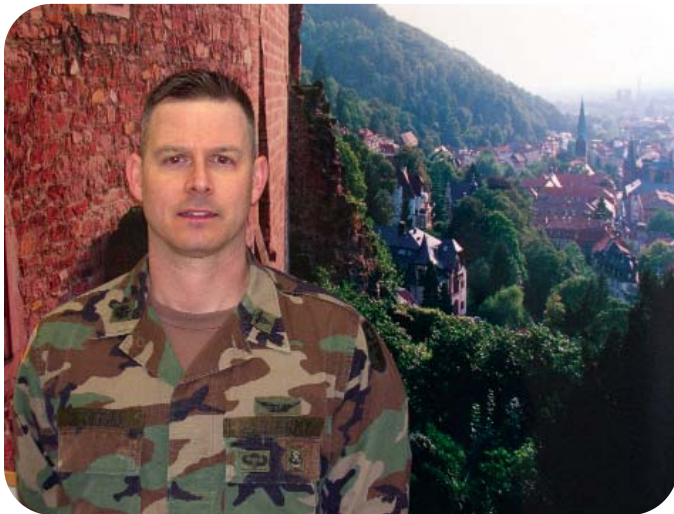
If you are DEPLOYED and have a concern about a puzzling skin lesion, you can email your clinical photos and with the aid of your SOF manual, a concise morphologic description of the difficulty to our Operational Tele dermatology site at derm.consult@us.army.mil or myself directly at Daniel.Schissel@us.army.mil.

The lesion you describe just may make its way to the next edition of Picture This...

* A special acknowledgement to LTC Thomas Hirota, MC, USA, for the use of the clinical photo.

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LTC Daniel Schissel is a 1993 graduate of the Uniformed Service University of the Health Sciences. He completed his internship with the family practice department at Fort Bragg in 1994. He then served as the 2/10th Special Forces Group (Airborne) and followed on as the 10th SFG(A) Group Surgeon. He completed his residency training in dermatology at the Brooke Army Medical Center in 1999. LTC Schissel is presently station in Heidelberg, Germany as a staff physician and the European Regional Medical Command Dermatology Consultant. He has authored the dermatology section of the new SOF manual, serves on the USSOCOM Medical Curriculum and Examinations Board, and is the US Army Aviation Dermatology Consultant.

Photo Gallery



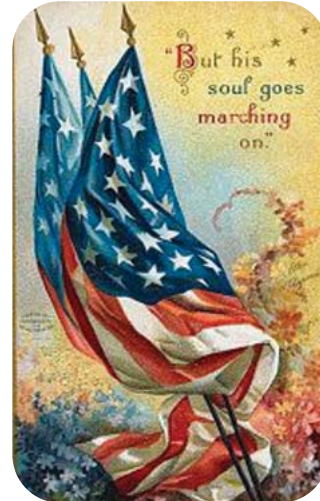
Photos are of EOD personnel who stumbled into old Iraqi mustard ordinance.



Dedication



Theodore Fitzhenry
HMCS (SEAL/IDC/SWCC)



HMCS (SEAL/IDC/SWCC) Theodore "Ted" D Fitzhenry was born on September 28, 1962 in Canton, Illinois. He graduated from Canton High School in May 1981. Ted enlisted in the Navy on January 5, 1983. He graduated from Recruit Training Command, Great Lakes, IL on June 10, 1983. Upon completion of Basic Hospital Corps School in San Diego, CA, in August of 1983 he reported to Basic Underwater Demolition/SEAL (BUD/S) Training at the Naval Special Warfare Center, Coronado, California. After graduating from BUD/S Class 130, he completed Special Operation Technician training and reported to SEAL Team THREE.

While assigned to SEAL Team THREE, Ted completed two six-month deployments to the Western Pacific and a deployment to the Persian Gulf. After three successful cruises as a SEAL, Ted reported to BUD/S as an instructor. As a First Phase Instructor, Ted often led the students in "log PT," setting high standards by carrying his own log throughout the training session. In November of 1995 he reported to Special Boat Unit TWELVE where he became the first SEAL to lead a Rigid Inflatable Boat (RIB) Detachment earning the highest grade the Operational Readiness Exercise in the Command's history. Continually striving to better himself, Ted went on to earn three more qualifications: Independent Duty Corpsman (8492), Special Warfare Combatant Craft Officer in Charge (9533), and Master Training Specialist (9506), and eventually became the Command's Medical Department Head.

After his successful tour at SBU-12, Ted moved on to the Recruit Training Command. He combined his Special Boat and SEAL knowledge to help mentor and advise thousands of recruits. As a master trainer and senior enlisted advisor, he was instrumental in increasing the number of applicants into the Naval Special Warfare pipeline from a 6,000 recruit deficit to two years of record breaking applicants. In 2002 he was promoted to Senior Chief and his next assignment was Naval Special Warfare Unit Four. In November of 2003 he was assigned to SEAL Team FIVE, where he served as Task Unit Chief for Central Command deploying platoons.

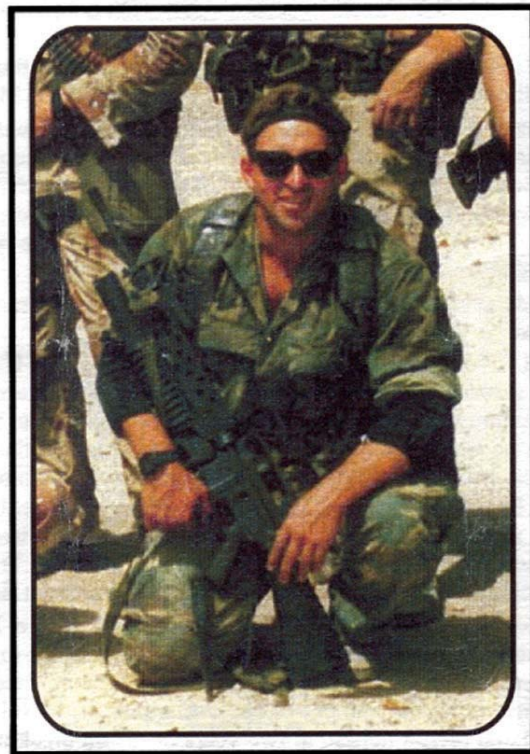
Upon arrival at SEAL Team FIVE, Ted immediately volunteered to go forward into combat in support of Operation Iraqi Freedom. Over the course of four months, in Iraq and Bahrain, Ted played an integral role as a Tactical Operations Chief. His diligent efforts in this highly stressful environment ensured that our SEALs

were given all the intelligence and tactical information to conduct successful combat operations. After returning to SEAL Team FIVE, Ted again raised his hand and volunteered to go back to Iraq for a six month deployment, truly dedicated to his profession and his Team.

Over the course of his 21 year career Ted fought courageously and selflessly instructed and developed other warriors, inspiring others to follow in his hard-to-fill footsteps. Senior Chief Fitzhenry was killed when the HMMV he was a passenger in rolled during a mobility training exercise. Ted will be sorely missed.

During his service Senior Chief Fitzhenry was awarded the Navy and Marine Corps Commendation Medal (2), Navy and Marine Corps Achievement Medal (2), National Defense Service Medal, Humanitarian Service Medal, Good Conduct Medal (4), and Expert Rifle and Pistol Medals.

Ted is survived by his wife and daughter, as well as his mother and three sisters.



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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 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 lonlinessshould 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, 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.



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 Giving aid to my fellow wearing greens, Sailors or Marines. low man, be it see a corpsman and So the next time you him "squid", think of you think of calling 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".



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