Medical Rules of Engagement Negative Patients: The Dilemma of Forward Surgical Teams in Counterinsurgency Operations

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Abstract

By definition, Forward Surgical Teams (FSTs) are located far forward in the battlespace to allow for emergent treatment of life and limb threatening trauma sustained by United States and coalition forces as well as those injured according to the medical rules of engagement (MROE). While official doctrine dictates that MROE negative patients are not entitled to care by American military medical assets, experience has shown that some FSTs do not always adhere to that doctrine during counterinsurgency (COIN) operations. Medical civic action programs (MEDCAPS) have been used in modern COIN conflicts in an attempt to gain favor with and influence the host nations' local population. However, the results have frequently been counterproductive to the intended mission. The FST, by doctrine, is not equipped to take part in traditional MEDCAPS. The focus of this paper is to explore the potential role of the FST in COIN operations. Possible roles for the FST in COIN include improving the host nation medical capabilities through education and training. Further, surgery can be a useful commodity to gain positive influence with or to trade for intelligence from key local national leaders.

Beginning with the first order of battle in Operation Enduring Freedom (OEF) in 2004,[1] Forward Surgical Teams (FSTs) have been sent to forward operating bases (FOBs) in Afghanistan. These FOBs are located near civilian towns and villages where COIN operations are being conducted. The goal of COIN is to defeat the insurgents by military force while helping to establish legitimacy of the host nation's government among the local population.[2] Military medical assets have been used in conflicts from post-World War II in the Philippines to OEF in Afghanistan in an attempt to win "hearts and minds," primarily through traditional MEDCAPs. However, there is no doctrinal history of the role of surgical services in this regard. The purpose of this article is to discuss the dilemma encountered by FSTs in taking care of MROE negative patients and what possible role the FST has in COIN operations, specifically in Afghanistan as part of OEF, now that it is entering its 10th year.

The FST's primary combat mission is to provide far forward life and limb-saving resuscitation and surgery to injured U.S. forces, their allies, host nation forces, and even enemy combatants in order to render a non-transportable patient sufficiently stable for medical evacuation to a higher level of care.[3] Secondary non-combat mission criteria can vary, depending on MROE. This often includes the preservation of life, limb, or eyesight of local nationals during the normal course of COIN engagement. An FST is typically made up of ten officers and ten enlisted personnel and is not designed for continuous operations extending beyond 72 hours, although resupply provides the capability for a longer presence.[4] FSTs are staffed with three general surgeons, one orthopedic surgeon, two nurse anesthetists, six nurses, four medics, two operating room scrub .techs, an administrative non-commissioned officer and an administrative officer. The team performs trauma triage, resuscitation, operative surgery, and recovery until resources are depleted. While doctrine defines an FST, many Task Forces have modified the doctrinal staffing and added secondary missions in response to the non-linear battlefield. Many of the FSTs deployed currently in theater have been augmented with additional personnel leading to non-doctrinal nomenclature such as FST (+) or some other term.

TABLE 1. Levels of military medical care[5]

Level of Care	Example	Size and Capabilities
I	Battalion Aid Station (BAS)	Physician, physician assistant (PA), medics; no surgical or patient holding capabilities; return to duty or stabilize and evacuate.
II	Forward Surgical Team (FST)	Located far forward and is the first level with surgical and holding capability; 20-person team with surgeons, anesthetists, nurses, medics; two operating room (OR) tables for up to ten cases/day for three continuous days until depleted; post-op ICU for up to eight patients for six hours; not designed for stand-alone operations or sick call; highly mobile.
III	Combat Support Hospital (CSH)	Highest level of medical care within the combat zone; modular design; holding for up to 296 patients divided between ICUs and wards; up to 175 officers and 429 enlisted; up to eight OR tables for 144 cases/day; some subspecialty surgical services (e.g., neurosurgery, vascular).
IV	General Hospital (GH)	Definitive surgical and medical care outside the combat zone but within the communication zone of the theater of operations; permanent or semipermanent structure; up to 476 patient holding with ICUs and wards; full subspecialty surgical services (e.g., neurosurgery, vascular, oral, ophthalmology, urology); at least eight OR tables for 144 cases/day.
V	CONUS Military Hospital	Final destination in the evacuation cycle; Department of Defense military hospitals located in the continental United States (e.g., Walter Reed Army Medical Center in Washington, DC); full medical and surgical capabilities as well as comprehensive rehabilitation.

The FST is at Level Two in the continuous chain of medical treatment and evacuation of casualties. (Table 1) It is a step up from Level One (the aid station) with the advantage of surgical capabilities to control life and limb-threatening injuries. Once patients are sufficiently stable for transport (usually four to six hours),

they are rapidly evacuated to a Level Three facility (e.g., Army combat support hospital [CSH] or Air Force Expeditionary Medical Support facility [EMEDS]) which provides a higher level of care for a longer period of time.

The secondary missions of FSTs are predictable given their current non-doctrinal configuration, the operational environments where they work, and the often limited capabilities of the local healthcare systems. FM 4-02.25 Appendix A lists specific injuries for treatment of MROE positive patients. However, no specific diagnosis-based guidance exists on what an FST can or cannot do with regards to MROE negative local nationals. On the other hand, there is specific guidance on the limitation of Title X monies for activities related to humanitarian outreach. This is the gray area that can lead to unintended consequences.

There is also the potential for negative impacts on the dynamics of local COIN operations despite the well-meaning intent of the FST. It is common among well-trained, well-intentioned surgeons who come from busy practices to want to fill their "down time" with elective cases. This is understandable, but perhaps not desirable at level two in a COIN environment for reasons we will explore.

The role of the surgical function of the FST in MEDCAPs and COIN is not part of official doctrine. However, there have been discussions about military medical assets being used to engage the local population in previous conflicts. During the Vietnam War, the United States military used large sums of money and human resources for MEDCAPs. Teams of doctors, nurses, and medics visited local villages. They would hold one-time clinics loosely diagnosing ailments without lab or x-ray support and distributed whatever medications they had until they ran out.[6]
Several publications discussed problems with some aspects of this approach.[7] Vietnamese healthcare providers rarely were included, which led to some feeling that they appeared inferior to the foreigners among the local population. Follow up for the patients was not provided because of security concerns. Medications and supplies eventually made their way to the black market or were used by enemy forces. In the end, military MEDCAPs did not provide long-lasting effective medical care and did nothing to build support among the local population for the Republic of Vietnam.[8] Recently, this same form of MEDCAP has been applied in Iraq with similar results.[9] Inadequate, hasty medical care has been rendered with little to no COIN benefit. The common reason for its use is a lack of understanding among non-medical personnel attempting to employ all available assets within a given battlespace to influence the local population. These events provide quantifiable feedback to a combat commander that is measurable. However, the number of locals "treated" does not positively correlate with the desired COIN effect.

We have learned from these traditional military MEDCAPs experiences in Vietnam and Iraq that setting up one day walk-in health clinics for humanitarian reasons did little more than make for photo-opportunities to be used in command briefings. This form of MEDCAP has many drawbacks. It fails to create long-term sustained effects that will carry on after the visiting forces leave because follow up care is not established and the host nation (HN) medical system has not been incorporated into the care. Many times, the HN providers in Afghanistan will send patients they cannot (or will not) treat to the foreign medical facilities. This creates a shunt of patients into the foreign medical system and evacuation process that competes for assets and is not sustainable once the visitors leave. In addition, the local civilian medical providers do not learn to care for these patients if they rely upon the foreign medical providers. This situation is challenging for those deployed to an FST because the FST standard of care is frequently higher than what the host nation (HN) provides and U.S. medical personnel are tempted to become involved in the care of unfortunate local nationals. This natural humanitarian desire, intrinsic to most healthcare providers, is an easy trap to fall into but getting out is very difficult. One must remember that it is not the mission of the FST to replace the HN civilian medical system, regardless of the difference in the standard of care.

The focus should be on building the HN system because it will be the system the local population will have to rely on once the foreign medical assets have left. In addition, it is counterproductive to the COIN goal of legitimizing the HN government and medical system among the local population to usurp their providers. As shown in Vietnam, care given by an American FST does not necessarily translate into support for the HN government and a rejection of the insurgency. Disgruntled local patients who have unrealistic expectations of miraculous American medicine or a poor surgical outcome (regardless of whether the surgeon is responsible) is counterproductive to the COIN goal of winning favor among the local population. Patients who have amputations (e.g., hand or foot) or surgical complications can be used by insurgents as propaganda against U.S. forces. The local media may show the patient with the caption stating "the Americans did this to our child." An excellent example of the appropriate application of COIN doctrine is the recent establishment of Paktya Regional Military Hospital (Gardez) which is staffed by Afghans with US military mentors providing overwatch. U.S. Special Operations Forces (SOF) have also applied COIN doctrine in creating a new form of MEDCAP called the Medical Seminar (MEDSEM). In this novel form of MEDCAP, the HN medical officials are at the forefront with the SOF acting as educators and evaluators. This nontraditional MEDCAP achieves the COIN goals of enabling the HN medical system to become self-sufficient and proficient in medical care delivery while building legitimacy and trust among the local population.[10]

Some combat commanders utilize their medical assets for MEDCAPs as propaganda to gain favor with the local population. The goal is to get the image and word out of the foreign and HN government working together to improve the lives of the local population. However, this can backfire during COIN operations in areas where insurgents are active. Well-meaning U.S. military doctors may care for local nationals injured by insurgents expecting that the information given to the media would reflect this compassionate care and potentially influence the local population to support the COIN effort. An example of this exact situation occurred to COL Mark Ziemba in Afghanistan at an FST in 2007. Three local children injured in a Taliban rocket attack were brought to a U.S. Army FST at the request of the U.S. combat commander. The logical aim of the commander was to score a propaganda victory for the U.S. effort. The commander even arranged for a visit by an Afghan TV reporter and camera crew. However, when the guardian of the three children was interviewed about the children, he stated that they had been injured by U.S.

military forces. This answer was obviously driven out of fear of retaliation by local insurgent forces, but illustrates how quickly a potential propaganda gain can be lost or even backfire.

Orthopedic surgery is a busy and essential component of the FST's surgical capabilities. The orthopedic surgeon's primary role is to stabilize musculoskeletal trauma sustained by U.S. forces, coalition forces, and local nationals meeting MROE. Despite the abundance of local national musculoskeletal trauma and congenital or acquired orthopedic deformity, the orthopedic surgeon has limited capacity to address these conditions in an MROE negative population. Engaging in routine orthopedic treatment in an MROE negative population is detrimental to both the FST mission and host nation medical system. By nature, orthopedic surgery requires significant resources to impact even one individual in direct patient care. Resources include provider time (pre-operative evaluation, surgical time, and follow-up), ancillary staff time, surgical supplies and orthopedic implants. Additionally, each patient interaction increases the safety risk to FST personnel, particularly at the front gate of a FOB. Unlike stateside medicine, local national medical follow-up requires U.S. and medical providers to expose themselves to potential personnel-borne or vehicle-borne explosive devices transported (willingly or unwillingly) by patients entering or leaving the FOB. Also, frequent and predictable local national patient follow-ups on coalition installations establishes a pattern and avenue of approach that could be exploited by insurgents. This requires a risk/benefit analysis by the FST and local command whether the non-primary medical mission benefit outweighs the significant risk created for medical personnel and coalition forces.

The orthopedic literature is limited specifically regarding orthopedic surgery's role in COIN. Despite this limitation, humanitarian volunteerism is encountered commonly in the orthopedic community. Experiences and opportunities vary, but long-term staffing and established infrastructure in the local community are critical to orthopedic surgical success as a humanitarian goal. Cobey outlines several tenets required from humanitarian volunteerism for lasting improvement in a nation's ability to administer orthopedic care. A country benefits little from a specialist performing multiple surgical procedures on individuals in a community that lacks the infrastructure, development, and stability to properly care for and manage post surgical patients and potential complications.[11] Cobey states, "the ability to do an operation is not an indication for the procedure." Teaching local providers is a more lasting benefit than short term direct medical care. A review of an FST unofficial log book identified orthopedic lower extremity fractures as the most common referral from the local Afghani surgeon.

Theater-specific planning should include establishing regional orthopedic hospitals similar to the one established in Gardez if COIN is the objective. The American approach would be to establish teaching programs with a clear curriculum, a full time staff and a long term commitment. This approach is complicated because Afghani surgeons have conveyed to the authors that there is internal resistance to teach or train additional Afghani surgeons for fear that the competition would diminish their income or stature. In addition, it is not guaranteed that individuals of free will, after completing their training, would remain in a third world country rather than move to another country under a critical skill visa. A training system should tailor education to methods that are locally practical and sustainable. In the military setting, strong communication between non-governmental humanitarian organizations and the education of local medical personnel are important components for improving medical care delivered to local populations by U.S. forces. [12]

Accomplishing these goals is outside the scope of an FST's mission. FST detachments do not have the personnel, time, resources, or influence to effectively establish or develop long-term local surgical care and training infrastructure and personnel. These exist at the brigade level or higher. It is at this level that a different type of MEDCAP than the traditional ad hoc clinics discussed previously can be successful as long as certain principles are adhered to. A plan must be developed with the HN's assistance that enhances rather than replaces the HN's programs. The HN must be able to continue the programs after the U.S. leaves. Credit for the programs must go to the HN rather than the U.S. military.[13] Adhering to these principles will help build self-reliance in the HN medical system and add legitimacy to the HN government and medical system among the local population. However, the most important principle for helping develop an effective HN medical system in a COIN environment is security. The local population needs to feel that they can safely access the HN health services in order to build any legitimacy. Furthermore, elements aligned with the insurgency must not be given open access to the facility or the resulting civilian casualties will erode confidence in the host nation system.

Since the FST should not be involved in traditional MEDCAPs and is not administratively large enough to affect broad theater operations, what role could it potentially play in COIN operations? The FST is comprised of many well-trained individuals with skill-sets ranging from emergency room medics to intensive care nurses to trauma surgeons. Plastic surgeons, thoracic surgeons, obstetric and gynecology surgeons, and subspecialty general surgeons are frequently deployed as a substitute for traditional general surgeons given the shortage of surgeons in the current U.S. volunteer military. In addition, FSTs have anesthetists with unique skill sets including the ability to perform regional

TABLE 2. MEDCAP plans with goals and unintended negative consequences

MEDCAP Plan	Goal(s)	Unintended Negative Consequences
Ad Hoc Health Clinic	Treat acute and chronic diseases among as many locals as possible in a finite period of time.	Misdiagnosis and incorrect treatment, anger and disappointment among locals for unmet expectations, exclusion of local healthcare providers, inadequate follow-up, medicines and supplies reach enemy or black market.
MROE Negative Surgery	Treat locals sent to U.S. facility to win "hearts and minds".	Use of limited medical resources and occupancy at level two, shunt of patients from local medical system building dependency, tying up medevac assets, detracts from HN medical system legitimacy and competence building, security risk to U.S. forces.

anesthetic blocks. These varied individuals could serve as subject matter experts to engage in educational and training activities with their local healthcare equivalents. Periodic meetings could be arranged with the local healthcare providers on the FOB for lectures, hands-on practical exercises, discussion of patient case scenarios, and quality assurance discussions similar to morbidity and mortality conferences held by American surgeons. The FST could offer occasional MROE negative assistance on an urgent or emergent case by case basis, especially for services not offered by the local healthcare providers, in order to create a relationship and start a dialogue on how to empower the HN medical system to care for its population after the COIN operations have concluded and the U.S. is no longer present. Surgery could also be used as a strategic commodity to gain favor or voluntary information from key influential local nationals in the community. It could be used as a bartering tool to exchange elective surgical and medical care for intelligence information with regards to insurgency activity. However, this would require coordination with the intelligence and/or special operations community to determine the reliability of these people and if the exchange is likely to be beneficial. Physicians and medical personnel are prohibited from directly obtaining information by pharmaceutical or other means by convention according to the Law of War. A careful legal risk benefit analysis needs to be done in these scenarios including the risk of a complication or death. Additional consideration should be given to adverse media attention negative outcomes could draw and the impact these could have on COIN operations.

Acknowledgements

We would like to thank MAJ Farren Windham, CRNA, for his editorial contribution.

References

1. U.S. Forces Order of Battle - 19 May 2004. Retrieved March 13, 2011 from GlobalSecurity.org website. Website: (http://www.globalsecurity.org/military/ops/oef_orbat_040519.htm).
2. Field Manual 3-24: Counterinsurgency. Washington, DC: U.S. Dept of the Army; December 2006: Chap 1.
3. Field Manual 4-02.25: Employment of Forward Surgical Teams. Washington, DC: U.S. Dept of the Army; March 2003:Chap 2.
4. Stinger H.K., Rush R.M. (2003). The forward surgical team: The Army's ultimate lifesaving Force .... *Infantry Magazine*; 92 (Winter):11–13.
5. Szul A.C., Davis L.B. (2004). Emergency War Surgery: 3rd U.S. Revision. DOD, U.S. Army, Borden Institute. 2004:Chap 2.
6. Wilensky R.J. (2001). The medical civic action program in Vietnam: Success or failure? *Military Medicine*; 166(9)(Sep):815-819.
7. Wilensky R.J. (2001). The medical civic action program in Vietnam: Success or failure? *Military Medicine*; 166(9)(Sep):815-819.
8. Baker J.B. (2007). Medical diplomacy in full-spectrum operations. *Military Review*; (Sep-Oct):67-73.
9. Rice M.S., Jones O.J. (2010). Medical operations in counterinsurgency warfare: desired effects and unintended consequences. *Military Review*; (May-June):47-57.
10. Alderman S., Christensen J., Crawford I. (2010). Medical Seminars: A new paradigm for SOF counterinsurgency medical programs. *Journal of Special Operations Medicine*; 10(1)(Winter): 16-22.
11. Cobey J.C. (2002). Physicians and surgeons volunteering in developing countries: A personal perspective. *Clinical Orthopaedics and Related Research;*396 (March):65-72.
12. Pollak A.N., Ficke J.R. (2010). Extremity war injuries: collaborative efforts in research, host nation care, and disaster preparedness. *American Academy Orthopedic Surgery*; 18(1)(Jan):3-9.
13. Field Manual 8-42: Health Service Support in Stability and Support Operations; Washington, DC: Dept of the Army; October 1997: Chap 3.