Readers of a volume on military ethics are likely to be less familiar with medical than military ethics so it is useful to begin there. Medical ethics governs the practice of medicine by protecting the rights of patients. While legal rights sometimes come into play (as in abortion, for example) moral rights generally dominate discussions of medical ethics. When these rights become pressing, some nations may legislate or regulate certain practices (such as euthanasia). Patient rights include a person’s right to medical care, autonomous decision making and informed consent, confidentiality and privacy. These rights impose duties on nations and on caregivers. In most of the world, developed nations provide a level of medical care to allow individuals to maintain a dignified life while enjoining physicians to act with beneficence.

Until the middle of the last century the practice of medicine elicited little in the way of moral concern. This changed radically with introduction of kidney dialysis, assisted ventilation (breathing machines) and organ transplantation. For the first time, the medical profession required guidelines to distribute a scarce and very expensive life-saving technology (dialysis machines) and to know exactly when death occurred so doctors could harvest organs. While death was once determined by the cessation of cardiac and pulmonary functioning, ventilators now allowed patients to breathe even after they seemed to have died. This “seemed to have died” soon translated into the idea of brain death that would allow physicians to extract the organs of a still breathing patient without committing murder. Evolving definitions of death also opened the door to the right to die.

On the heels of rapid technological development, the 1960’s also brought great strides in individual self-determination. Civil rights were, of course, the most contentious issue and among the rights that people demanded were patient rights. These rights built upon the right of individual autonomy and the right of every individual to legislate and determine his or her own life. This included medical decisions from the most mundane (taking medication or accepting surgery) to questions of life and death. To respect autonomy, medical ethics enshrined the idea of informed consent, privacy and confidentiality. Doctors no longer acted paternalistically and in their patients’ interest as caregivers saw it, but were now morally and later legally obligated to provide patients with all the information necessary to make an informed decision. Decision making not only entailed consenting to treatment but also

*E-mail: mgross@poli.haifa.ac.il.
allowed patients to refuse treatment. As medicine “medicalized” death and kept patients alive but sometimes debilitated, patients demanded, and soon received, the right to die. This included the right to refuse antibiotics, to turn off ventilators and, in some cases, to request assistance to commit suicide when medical conditions made life unbearable.

Military medical ethics addresses these concerns but adds many players and conflicting interests. For most civilian medical practitioners, an individual patient’s health and welfare are of paramount concern. When doctors are administrators or when they work for a large health maintenance organization they may also have the interests of a particular population at heart. Rather than focus on the interests of a single patient, the physicians must instead worry about the common good and distribute medical resources so that the most patients (or citizens) derive the most benefit. This may require rationing or may limit expensive care to populations that may best utilize it (e.g. the young) at the expense of those who might not (e.g. the elderly). In military medicine, however, a number of conflicting interests enter the fray. During peacetime, a nation may discriminate between veterans and ordinary citizens and offer the former superior health care (as was the case in the US before Affordable Health Care). During wartime competing interests multiply as military medical organizations must deliver care to compatriots, allies, enemy soldiers and civilians of all stripes. While all are entitled to medical care; not all are entitled to the same level of care particularly when resources are scarce as they have been during operations in Iraq and Afghanistan.

Lurking in the background of military medicine is military necessity. Military necessity points to the means required to prevail upon an enemy and ensure victory. Many modern definitions also tack on “and that are not unlawful under international law.” I say “tack on” because once a legal constraint is added some dilemmas posed by military necessity disappear. However, the legal norms that constrain military necessity are not a forgone conclusion and real problems arise when the means needed to prevail in war conflict with established law or ethics. It is precisely this tension that give substance to the principle of proportionality which permits harming noncombatants (albeit collaterally) and to such policies as terror bombing (to prosecute World War II against Germany and Japan, for example), nuclear deterrence (to deter the Soviet Union by threatening civilians with annihilation), torture (to gain actionable intelligence from terrorists) and targeted killing (to prevent harm to innocents). Military necessity reaches very far. War takes innocent lives and only some goal of greater value can ever justify this. Along the way, compelling norms that ordinarily protect life and dignity may fall.

Military necessity also exerts its force upon medical ethics in times of war and peace. In times of peace, the needs of the military significantly affect patient rights. In general, the military shows far less patience for privacy, confidentiality and informed consent than civilian medicine. Soldiers often have the feeling that they are military property and, as a result, often find that they must accept certain kinds of treatment or face disciplinary action. Inductees require vaccinations, routine medical tests and, indeed, must generally accept treatments necessary to keep them fit so they may perform their assigned duties. Deference to their military duties may sometimes require military doctors to disclose medical information without their patient’s consent. On the other hand, there is growing recognition that enlisted personnel are a particularly vulnerable population that requires special protection. In the past, enlisted personnel were often prime subjects for medical experiments (e.g. testing new vaccines). They were fit, disciplined, accessible and readily available for follow up and evaluation. Spurred on by their peers and commanders, they also showed particular readiness to volunteer. But “volunteer” was something of an illusion when it became clear that young recruits did not always know what they were doing.
Nor were live soldiers the only concern of medical ethicists. Until recently, it was common practice in many places to allow medical students and medics to practice life saving techniques such as tracheostomies (inserting a breathing tube in the windpipe) on the newly dead. In military organizations this included the bodies of soldiers killed in training. The tension here is palpable. On one hand, a person’s right to control one’s body (dead or alive) and their right to informed consent (which was not obtained for the purpose of operating on the dead) run head long into necessity of training military medical personnel to save lives on the battlefield. In time, military and civilian hospitals abandoned these practices when alternative forms of training became available (e.g. practicing on mannequins).  

**The Ethical Principles of Military Medical Ethics**

Both military and medical ethics are principle driven. Underlying each is the right to life and the imperative to protect life and provide security at almost any cost. However, the scope and the implications of this central right are very different in each discipline. Military ethics offers the normative framework to protect collective and individual lives. At the collective level, military ethics safeguards the life and security of the nation-state as well as the military organization that protects it. At the individual level, military ethics looks at all the participants and asks “whose life is at stake?” and then distinguishes between combatants and noncombatants. The former forfeit their right to life and become legitimate targets; the latter do not. As a result, military ethics focuses intently upon the principle of discrimination, the duty to distinguish between those liable to harm and those not, and the principle of proportionality, the extent to which those not liable to harm may, nonetheless suffer injury, loss of life and destruction of property. To navigate these waters, military necessity remains the overarching guiding principle. Military necessity, the right to take the means necessary to subdue an enemy in pursuit of just cause, permits the taking of combatant and noncombatant lives. The only restraint is a modest one. Combatants and noncombatants may not suffer cruelty, inhuman treatment, superfluous injury, unnecessary suffering, humiliation or grave indignations. In addition, noncombatants enjoy protection against “excessive” or “disproportionate” harm.

Since war is about taking lives and medicine about saving lives, it might seem odd that medical ethics shares much of anything with military ethics. While war is about taking individual lives to save a collective life, medicine foregoes the collective and speaks directly to the individual. Medical ethics provide the principles to protect individuals from injury, disease, contagion, the forces of nature and the forces of man. Medical need is its driving principle and hence any principle of discrimination is an anathema; a gross violation of fairness and equity because all individuals merit treatment based solely their medical requirements independent of their identity as a soldier or civilian. Nevertheless, the individual in modern medicine is only part of a vast constellation of conflicting interests. As medical costs soar and easily outdistance military costs as the single largest budget item in industrialized nations, questions about the collective good surface. How much money should be allocated to medical care at the expense of education, welfare, defense and the environment? Who deserves what, when, where and how? Is quality of life more important that extending life? Do the elderly deserve more medical care because they have paid dues all their lives or less medical care because much of it is wasted on futile, minimally life extending care in the last months of life? These questions are no less pressing than informed consent, privacy and confidentiality and are quickly proving divisive if not intractable.  They also impinge on military medical ethics.
Elucidating the principles of military medical ethics is not a simple matter of merely merging the principles of military ethics and those of medical ethics. Until recently, the mission statement of the US Army Medical Department, for example, read:

The mission of the Army Medical Department is to conserve the fighting strength… Combat health support maximizes the system’s ability to maintain presence with the supported soldier, to return injured, sick, and wounded soldiers to duty, and to clear the battlefield of soldiers who cannot return to duty.5

Instructively, this mission statement emphasizes collective needs first. Military medicine serves the needs of the military whose overriding goal is to provide national security. In this way, the individualistic principles of medical ethics – the right to medical care, non-discrimination, privacy and confidentiality – remain subordinate to military necessity. Military necessity, however, is not omnipotent but is itself restrained by respect for dignity and fundamental human rights that protect individuals from torture, humiliation, cruelty and ill-treatment. The weight of military necessity is a constant presence in the examples that follow.

Alternatively, newer mission statements from the U.S. Army Health Services (AHS) strike a balance between “sustaining and protecting warfighting functions,” and patient care.6 Other mission statements are more expansive. The mission statement of the medical corps of the Israel Defense Force, for example, emphasizes patient rights and dignity. One reason for this emphasis is institutional. Israeli conscripts leave the national health care system when they enter the military and join the military’s health care system. The military system is their principle provider and conscripts are its “clients.” Nevertheless, the moral weight of private interests and individual autonomy can be no more ignored than that of military necessity. Both play out in the dilemmas that pervade military medical ethics.

Pressing Issues in Military Medical Ethics

Among the persistent issues of military medical ethics are patient rights for soldiers. These include quotidian questions of medical care for veterans as well as in service dilemmas of informed consent, confidentiality, privacy and truth telling. How we answer these questions impacts on issues like vaccinations, experimentation and operating on the newly dead. On the battlefield scarce resources force questions about triage and the order of treatment. Adjacent to the battlefield, medical personnel find themselves caught up in the in the care of detainees. Here hard ethical problems arise when doctors, nurses and medics are called upon to assist in interrogation or force feed hunger striking inmates. Off the battlefield, the specter of weapons developments, particularly those that utilize biological and chemical agents, occupy no few medical practitioners. Finally, military medical personnel face a host of ethical challenges as they administer care during and after humanitarian intervention in conflict ridden nations.

Patient Rights in the Military

When, for any reason, a civilian patient refuses treatment there are no consequences for anyone other than himself. Nor are the consequences anything but health related. The situation is much different for service personnel. Service personnel only have the right to refuse treatment "to the extent permitted by law and existing government regulations and to be informed of the medical and administrative consequences of his/her refusal."7 Administrative consequences can include disciplinary action or a reduction of a serviceperson’s “compensable disability” if personnel refuse medical treatment that will keep them fit for duty.8
“Fit for duty” speaks to an overriding concern of military necessity in times of war and peace. Military necessity reaches far into the interests of the nation, the interests of military as an organization and the welfare of individual soldiers. A patient’s interests alone are not determinative of medical care or of patient rights such as privacy, confidentiality and truth telling. Service personnel can and do find these rights restricted to protect the common good. In this way non-medical interests supplement, if not supplant, medical grounds for providing care. Thus the US Army’s text book of Military Medical Ethics explains how it may be ethically permissible to disclose confidential information to commanders if necessary to protect a mission or shade the truth about the effects of investigational drugs if the truth might undermine morale or otherwise impair military interests.

Among the most interesting and recent cases are those surrounding the threat of biological warfare. Although most nations have forsaken biological and chemical weapons, many nations in the Middle East have not. To protect soldiers against botulism during the First Gulf War, the U.S. Department of Defense (DoD) requested and received a waiver to give troops an investigational drug, botulinum toxoid (BT), without their consent. This caused an uproar that led to guidelines that only allowed the President to approve waivers of informed consent. The issue flared again in 1998, when the US Army wanted to inoculate troops against airborne anthrax using a vaccine that had only been approved for subcutaneous anthrax. Critics maintained that the DoD required a waiver; the DoD argued that the vaccine was standard treatment. The DoD prevailed leaving dissenting soldiers to resign from the service if they decline treatment. Otherwise, their inability to fight under adverse biological conditions might put their entire fighting unit at risk. In this case, military medical ethics strives to protect the health of individuals and military capabilities more generally. In extreme situations military necessity may trump individual rights.

Medical experimentation poses similar dilemmas. Although the term “medical experimentation” conjures up horrific images of Josef Mengele and vivisection, most experimentation is far less insidious. The military routinely tests new equipment - from clothes, boots and helmets to nonlethal weapons - to assess their effects on the health of soldiers in the field. Researchers look at such variables as dehydration rates, effectiveness of protective clothing and comfort. Although these experiments demand subjects’ informed consent, they only become controversial when testing drugs or chemical agents. Thus the British and US military faced severe criticism for conducting tests using nerve gas and LSD on soldiers without their express consent in the 1950’s. More recently, the Israel Medical Association excoriated the military for recruiting hundreds of newly conscripted soldiers to test vaccines for anthrax. Cognizant of the vulnerability of low ranking recruits, the US Department of Defense now forbids the presence of a soldier’s superior during the solicitation of research subjects, requires an independent ombudsman to monitor recruitment and takes pains to confirm voluntary, informed consent.

When soldiers become the subject of experiments that offer them no therapeutic benefit and may cause harm, the standards of consent are very high. In general, experimenting on such soldiers should remain forbidden, thereby forcing the military and/or drug manufacturers to find voluntary civilian subjects. When soldiers are offered an investigational drug, that is, a drug whose effects are largely understood but insufficiently researched for release to the general public and when that drug is administered to protect warfighters from harm on the battlefield, then military necessity may prevail. Much depends on the likelihood that a drug offers a therapeutic benefit coupled with the magnitude of the threat a nation faces. If military action is necessary to forestall a significant threat and the risk of inoculating soldiers is less than the risk of sending them to fight unprotected, then it may be permissible to waive informed consent. An investigational drug, for example, that carries a 25% risk of death is
preferable to an unprotected military operation that carries a higher risk of death from exposure to chemical or biological agents. Under these conditions, the right of informed consent falls to military necessity.

Nevertheless, military necessity is not always overriding. While military officials may sometimes have the right to shade the truth, they do not have the right to conceal information that does not affect operations. Similar caveats guide violations of confidentiality and privacy. Commanding officers no longer have ready access to confidential medical information but are, instead, entitled to no more information than they need to conduct their mission. And while the slippery slope is ever present, it falls to the medical staff to navigate between protecting their patients’ rights and conserving their fighting force. These dual obligations force many of the dilemmas that characterize military medical ethics.

**Battlefield Bioethics and the Distribution of Scarcé Medical Resources**

“Penicillin” triage afforded one of the first dilemmas of modern battlefield medicine:

When the wonders of penicillin were new, but recognized, and the supply heartbreakingly meager, a small shipment finally arrived in North Africa during World War II. The hospital beds were overflowing with wounded men. Many had been wounded in battles; many had also been wounded in brothels. Which group would get the penicillin? By all that is just, it would go to the heroes who had risked their lives, who were still in jeopardy and some of whom were dying. They did not receive it, nor should they have; it was given to those infected in brothels. Before indignation takes over, let us examine the situation. First there were desperate shortages of manpower at the front. Second those with broken bodies and broken bones would not be swiftly restored to the battle line even with penicillin, whereas those with venereal disease, on being treated with penicillin, would in a matter of days free the beds they were occupying and return to the front.

This dilemma is compelling. When supplies are short, who is first in line? As this example shows, it is not always the most medically needy. Doctors may permissibly treat fewer soldiers to return them to duty than greater numbers of soldiers to save their lives. Further dilemmas arise when compatriots, allies and enemies all need care.

As US, Coalition and NATO soldiers fought in Iraq and Afghanistan, medical personal medical provided care for Western forces, “host nation” allies, local civilians caught in the cross fire and prisoners. To support its soldiers, the U.S. Army provided medical care at several levels: first aid and evacuation at the Battalion Aid Station, immediate treatment and surgery from a 20 person Forward Surgical Team, and resuscitation, reconstructive surgery, intensive care and psychiatry at a Combat Support Hospital. In theater medical care was short term. Warfighters who could not return to duty received long term and/or sophisticated treatment in trauma centers in Germany or the US.

While Coalition soldiers receive the best possible care, local casualties must turn to the local health care system. Although the Geneva Conventions stipulate a minimal level of health care that occupying forces must provide, the result is a two-tiered system. Coalition forces receive superior care while those who fight at their side do not. This two-tiered system limits care for host country allies who, without access to sophisticated prosthetic devices or good follow up care, for example, will not receive the same reparative surgery US soldiers receive in the field. Enemy detainees, on the other hand, enjoy special protection under the Geneva Conventions and the same care as Coalition forces. This creates an ethically dubious
outcome that, at present, is only resolved when the US transfers care of detainees to the host nation.\textsuperscript{18}

As these descriptions suggest, it is not always possible to treat the wounded strictly on the basis of medical need. Availability of follow up resources and obligations under international law dictate different levels of care for the various actors that populate the battlefield. Similar cases may not be and, perhaps, should not be treated similarly. On one hand, this is a \textit{prima facie} violation of the neutrality provision of the Geneva Conventions which prioritize care solely on the basis of medical need. On the other, it recognizes the imperatives of military necessity. Although some commentators view the obligation to preserve neutrality and treat indiscriminately as absolute, situations arise in wartime that temper this assessment. First, the obligation to treat those who can best contribute to the war effort may override the duty to save lives when resources are scarce.\textsuperscript{19} This is the lesson of penicillin triage. Second, medical personnel may appeal to “associative” obligations or an ethic of comradery to treat their own soldiers first regardless of the severity of their wounds. Just as a parent need not rescue other children when her own are endangered, medics ministering to the needs of unit members may treat their comrades first. Morally, this is acceptable for two reasons. First, priority treatment for compatriots maintains a unit’s fitness to fight. Second, it recognizes the paramount place of primary ties and the special obligations people owe friends, family and, no less, comrades in arms. Indeed, when asked, soldiers often expect their medics to treat their comrades first in spite of any legal obligation to treat the wounded irrespective of nationality.\textsuperscript{20}

Questions about treating terrorists are also part of battlefield bioethics. Fighting terrorism may dictate military protocols that cause harm by delaying patients, ambulances or medical workers suspected of aiding terrorists. Medical staff may face significant emotional hurdles when asked to treat terrorists. Some may be reluctant to endanger themselves at the site of an attack; others will find it difficult to treat terrorists at all or while their victims still require care. Here, psychological and emotional support may be necessary.\textsuperscript{21} The order of treatment remains an open question. While the Geneva Conventions continue to trumpet medical need, others argue that terrorists are unlawful combatants and only merit care after compatriot soldiers, prisoners of war and civilians have been treated.\textsuperscript{22} Even accepting this view, much depends upon how one defines the rights of “unlawful combatant” an issue that military law and ethics has yet to resolve.

\textit{Interrogation, Torture, Forced Feeding}

Since disclosures of torture and ill-treatment at Abu Ghraib, Iraq (2004), students of military ethics and law have weighed in for what has become a vociferous and contentious debate. In light of rampant terrorism, few scholars and public figures have supported aggressive or “enhanced” interrogation when “ticking bombs” threaten the lives of innocent civilians. In response, equally vocal opponents decry the use of torture while suggesting that it is at best ineffective and, at worst, a cancer that will eat away at any democracy.\textsuperscript{23} In light of these debates, policy has changed since 2001. Following 9/11 and during the Bush Administration, enhanced interrogations techniques, rendition and long term incarceration at Guantanamo Bay were the fate of many terror suspects. President Obama, on the other hand, ended renditions and prohibited the CIA from employing many of its special techniques.

The medical community was not spared this debate particularly as physicians often cleared suspects for interrogation and saw to their health before, during and after questioning. In addition, clinical psychologists assisted interrogators by pinpointing detainees’ psychological weakness and helping to tailor interrogation regimens to exploit them. More recently, Physicians for Human Rights has documented how healthcare professionals experimented with torture by monitoring interrogations to collect data to improve questioning
techniques. These practices elicited vociferous condemnation from the medical community. In response, the World Medical Association and the American Medical Association allowed physicians to provide medical care to detainees but prohibited participation in interrogation or the presence of medical personnel when torture was used. Faced with unlawful interrogation, military medical personnel were enjoined to report abuses and act as “human rights monitors.”

In contrast to a lively but balanced debate about torture outside the medical community, the debate among medical practitioners was conducted along much narrower lines. As American authorities approved such interrogation techniques as hooding, stress positions, loud music and sleep deprivation for high value detainees, the bioethics community responded with near unanimous condemnation. Detractors were disparaged as anti-abolitionists or rogue bioethicists. Moreover, the debate rarely distinguished between the legitimacy of enhanced interrogation and that of physician participation. These are two separate questions. The first asks: Is enhanced interrogation permissible? The second asks: Is it permissible for health care professionals to participate in or facilitate interrogation?

If enhanced interrogation is not permissible then physician participation is impermissible. But if a nation permits enhanced interrogation, one must ask: “How should physicians and nurses behave?” Here the debate gets interesting and it is one that will resonate as we consider force feeding and weapons development. On one hand, medical ethics enjoin physicians “to do no harm.” Torture and force feeding certain cause their subjects harm. On the other hand, the imperatives of military necessity may override an individual’s rights when the rights of others are threatened. This is the ticking bomb argument. If a democratic nation accepts the need for enhanced interrogation to insure national security and save innocent lives, then physicians whose presence may be necessary to facilitate effective interrogations have a duty to contribute their expertise to the war effort. Such a duty is certainly no more unsettling than that of a fellow citizen called upon to kill. There are no grounds for any medical personnel to appeal to a higher calling and reject the duties incumbent upon their fellow citizens. A similar appeal to military necessity and professional obligation also animates the debate over force feeding.

Hunger striking is a political act of protest but one with distinct medical undertones. When prisoners refuse to eat until some political demand is met, authorities have three options: accommodate detainees, let them die or feed them by force. Nations govern themselves differently. In recent years, US officials have force fed hunger striking detainees within days of their decision to refuse food. The result has been grotesque images of conscious prisoners strapped to a chair and force fed by a feeding tube inserted into their gut through their mouth or nose. In contrast, countries like Israel and Turkey have negotiated with strikers and have reached agreement before either force feeding prisoners or allowing them to die. Prisoner demands have been modest and all sides emerged from the ordeal with their interests largely intact. It is quite likely that Israel and Turkey learned important lessons from Great Britain’s debacle with hunger striking in IRA prisoners in 1981.

While IRA strikers did not demand the British evacuate Northern Ireland, the inmates’ plea for political recognition demanded the right to wear civilian clothing instead of prison uniforms and to conduct educational sessions among their members. Understanding that extending political recognition to prisoners was to recognize the IRA, the British refused unequivocally to negotiate with hunger strikers. In the aftermath, ten inmates starved to death. The results for Britain were politically catastrophic. Over 100,000 residents of Northern Ireland took to the streets, the world community excoriated Great Britain, the IRA’s political wing, the Sinn Fein, successfully campaigned for the British Parliament while the military
wing escalated and intensified its terrorist and military activities. The hunger strike, in short, revitalized the Irish Republican Army and set the stage for another two decades of violence.

To avoid such outcomes, policy makers are left with accommodating or force feeding detainees. These options go hand in hand. While accommodation is preferable, force feeding should not be ruled out absolutely. Most medical organizations, on the other hand, including the World Medical Association (WMA) and the ICRC will not countenance force feeding of any sort. “Forcible feeding even if intended to benefit,” declared the WMA, “is never ethically acceptable.” Physicians in the field, however, cannot be so dogmatic and are sometimes willing to force feed or revive hunger strikers when their lives are in danger. This accords with the maxim to save lives and although it runs headlong into a patient’s right to refuse treatment, some doctors and bioethicists consider saving lives the stronger imperative. Nevertheless, military necessity looms large. Sometimes accommodation is not possible and allowing hunger strikers to die is not politically prudent. Such situations, though perhaps rare, are nonetheless imaginable. American officials certainly assume that they can neither meet detainee demands nor let them die. Thus the question for military medical ethics should not be whether force feeding is permissible but when and how it may be implemented.

To this end, it is important to know how hunger striking affects a striker’s health. Evidence is sketchy and more data are required to know how long a hunger strike can continue before causing irreversible harm. There is certainly no medical need to force feed a hunger striker with days of beginning a strike. Hunger strikers take their drastic actions to give weight to their grievances and state authorities should allot sufficient time to address these complaints. How much time they allot depends upon the nature of the strike. Hunger strikers who refuse only food last longer than those refusing food and water. In either case, strikes may continue safely for weeks or months allowing ample time for negotiation. At one point, however, the authorities will decide to intervene if negotiations break down and if hunger strikers face imminent harm. Physicians, in turn, must tell the authorities when strikers’ lives are in danger and provide the means to treat strikers once the hunger strike has failed. Treating by force is not without costs of its own. Medical organizations continue to condemn the practice, even to save a patient’s right, physicians do not like it and there is always the danger that a hunger striker may die or fall seriously ill. Force feeding is only a last resort when other avenues of resolution fail. There are no grounds for categorically prohibiting force feeding unless it is inhumane, violent and degrading.

Medical Humanitarianism

As humanitarian intervention strengthens under the international community’s responsibility to protect fundamental human rights, military medical ethics confronts novel and challenging questions. Before, during and after armed conflict, medical teams from state armies and nongovernmental organizations (NGO) provide medical care, water and sanitation services, and facilities for medical education. Their goals are both medical and political. In the Vietnam War, for example, the US Army Medical Department undertook “medical stability operations” to help support the local government. Care was sporadic, short-term, ill-distributed, underfunded and inattentive to local needs and often put military requirements above medical concerns. Learning from these mistakes, American military “Medical Civic Action Programs” (MEDCAP) in Cambodia, Thailand and elsewhere pursue more modest and less political aims. Most recently, MEDCAP operations in Iraq and Afghanistan provide “much needed or absent services to the people in the hopes of “winning the hearts and minds” of the local populace and undermining ideological support for the insurgency, while gaining support for the legitimate Afghan government.” Wary of Vietnam era errors, new programs emphasize sustainable care through partnerships with local NGOs, “collaborative medical
engagements” to “enhance host-nation medical infrastructure, … and instill confidence within the population.” More ambitious programs try to use medical care to mediate between warring parties, lay the foundations for good governance and protect of human rights.31

These endeavors are fraught with ethical minefields. “We must not naively assume,” write Anthony Zwi and his colleagues, “that because we are dealing with ‘health’ that this is neutral, that it is not contested, that it cannot create conflict.”32 Medical care introduces a scarce and valuable commodity into a violent and fiercely competitive environment and raises a host of questions: Should health care workers be impartial and neutral? Should they work with despotic regimes? Should NGOs bribe the local militia to ensure delivery of medical supplies and equipment? Should they respect the wishes of local institutions knowing these may discriminate against women or members of weaker groups?

Beyond providing care, many medical organizations (state or NGO) facilitate post-war reconstruction and pursue “peacebuilding through health” as they foster medical projects to sustain and empower the local population, bring warring sides together in joint projects and create safe havens where medical personnel can mediate conflict. In doing so, advocates strive to improve conditions necessary for social justice and equality, preserve cultural norms, and see to the special needs of women and girls, child soldiers, the elderly, the poor and disenfranchised. Joint medical education projects, mobile clinics, and pediatric health cross ethnic and national lines and can facilitate reconciliation and reduce tensions when, for example, warring parties accept ceasefires to care for ailing children.33

Peace building through health faces practical and normative challenges. Practically, organizations must measure their projects’ effectiveness. Collecting epidemiological data while ensuring informed consent, dignity and confidentiality is confounded by “disrupted social networks, limited resources, multiple public health risks, extensive abuses of human rights and intense competition for aid resources.”34 Assessing their efforts to alleviate social and political ills is harder still. Aid workers face constant threats and often lack the tools to effectively evaluate programs that strive for equality, empowerment, reconciliation and, ultimately, peace.35

Under these difficult circumstances, critics also raise a normative challenge to peace building through health: Is peace (any more than war) the business of medicine? Once medical workers abandon neutrality to pursue peace they must ask about the unintended and unforeseen consequences of favoring one side or another, of placing themselves in danger to secure nonmedical benefits, and of risking exploitation if a regime seizes on their efforts as signs of reconciliation while ignoring real steps toward peace.36 There are no simple answers to these questions and pursuing peace through health may only detract practitioners from their job of caring for the sick and injured. Contributing to war, no less than peace, may also distance medical workers from their primary obligations.

Medicine in War: Enhancement, Dual-use Technologies and Weapons Development

Until recently, medical science and medical practitioners had little to say about the weapons of war. No one needed doctors to help build bombs. But this has changed in two dramatic ways. First, advocates of nonlethal warfare turn to medical experts to determine how chemical agents, pathogens, and sound, light and electromagnetic waves can efficiently incapacitate a human being. Second, medical science now commands the means to enhance or improve human capabilities to make better soldiers. Each poses unusual dilemmas for military medical ethics.
Weapons development is a new venture for military medicine. Prior to the 20th century, the only important questions about a weapon were its accuracy, range and payload. When attention turned to chemical and biological weapons questions arose about potency (how much of a chemical or pathogen is necessary to kill or disable a human being) and delivery (how to introduce a chemical or pathogen into the human body). Only medical science could provide these answers. While the Biological Weapons Convention and Chemical Weapons Convention largely prohibit the development of weapons of mass destruction, nonlethal weapons research remains contentious. Nonlethal weapons include calmative agents that depress the central nervous system, electromagnetic or acoustic technologies that cause pain without tissue damage and neurological interventions that map or alter brain states.

Designed to cause harm, nonlethal weapons present military medicine with unique ethical challenges as weapon’s designers hope to maximize transient pain and discomfort without causing permanent injury or death. Nonlethal weapons systems affect human physiology in different ways. The US military’s Active Denial System (ADS) emits low energy electromagnetic waves that create an intense but transient burning sensation useful for dispersing crowds that threaten military installations. In contrast, calmative chemical agents depress the central nervous system so that affected targets fall unconscious. Neurological interventions to detect lying, for example, raise dangers of dehumanization and, infringements of “cognitive liberty.” Nor are nonlethal weapons entirely harmless. US guidelines make room for non-lethal weapons that kill or injure up to 1% of those affected. At least 129 people died in 2002 when the Russians pumped in a calmative agent before they stormed a Moscow theater to rescue hostages from terrorists. Most of these casualties occurred because medical crews did not have the antidote on hand.

As a result, many legal and ethical questions swirl around nonlethal weapons. On one hand, nonlethal weapons offer a useful tool to prevent noncombatant deaths in theaters where militants fight without uniforms. On the other hand, nonlethal weapons target and harm noncombatants directly, a grave violation of noncombatant immunity. As the international community wrestles with these issues, physicians who participate in weapons development face problems of their own. Dedicated to doing no harm, the very idea of weapons development remains an anathema to many medical organizations. The World Medical Association (WMA) and British Medical Association (BMA), for example, prohibit physicians from any involvement in weapons development. They cite not only a physician’s duty to do no harm but other contingent fears: loss of respect, concerns that nonlethal weapons may fall into enemy hands and fears that nonlethal chemical weapons may upend the international consensus that bans chemical and biological weapons of mass destruction. One solution is to remove medical personnel from direct involvement with weapons development. Placing them in defensive research as was common during and after WWII, is one answer. Another suggestion replaces physicians with technicians to administer and interpret brain scans of detainees, for example.

Many of these solutions, however, are neither practical nor compelling. Removing clinical practitioners is not always practical when experimental protocols require medical supervision. Moreover, medical technology remains in the service of the military regardless of who does the day-to-day work. More persuasive, however, is the claim that physicians should lend their expertise to weapons development because security interests sometimes override their professional obligations. Nonlethal weapons are designed to save noncombatant lives when it is impossible to distinguish between combatants and noncombatants. Moreover, the potential harms of physician involvement are overstated: physician integrity is not impaired, government regulation of nonlethal technologies is relatively tight, while evolving norms draw a sharp distinction between nonlethal weapons and weapons of mass destruction. As a
result, physicians do no harm on balance when they help develop nonlethal weapons, an argument that also resonates as we consider enhancement.

Enhancement technologies - drugs, brain-machine interfaces, neural prostheses, genetic engineering and mechanical cybernetic improvements - improve the fighting capability of soldiers, keep them alert, alleviate pain and sharpen and strengthen their cognitive and physical capabilities. Enhancements are not necessarily therapeutic: soldiers designated for enhancement are not sick. Rather, commanders seek to improve soldiers’ performance, reduce risk to life and limb and enhance a nation’s war fighting capabilities. Enhancement technologies raise questions about patient and soldiers’ rights and the role of medical science in the military. Soldiers have no right to refuse standard or investigational treatments that keep them fit for duty. But must soldiers consent to enhancement? Modafinil, for example, reduces fatigue and improves performance but pilots who take it are healthy and fit. Enhancement technologies, then, either make warfighters more fit or, in the very least, prevent or reverse performance degradation. Regardless, the pilots are not ill. Enhancement therefore requires consent together with medical supervision to oversee safety and guarantee that “non-pharmacologic alternatives” have been fully utilized.

Meeting these conditions is problematic. Informed consent is difficult to attain in a military hierarchy. The long-term effects of memory enhancing or fatigue reducing drugs remain unknown. As a result, there are legitimate concerns about personality change, lack of moral responsibility, and misplaced visions of power if soldiers use enhancing agents to maximize cognitive prowess by reducing anxiety, eliminating fear or blocking memories of battlefield events. These uncertainties weigh heavily upon those who prescribe the drugs and those who must take them. Nevertheless, these concerns must be weighed against their military benefits, a consideration necessarily absent from the ongoing civilian debate over enhancements. Military service imposes high costs upon soldiers that are acceptable if proportionate to expected military benefits. Any technology that increases military efficiency and protects soldiers will probably carry the day insofar as war fighters do not use their enhancement to violate humanitarian law. Assessing military necessity is a constant and vexing feature of military medical ethics and highlights the “dual-loyalty” dilemma.

**Dual Loyalty and Military Medical Ethics**

“Working to enhance national security,” writes the BMA, “may not always be compatible with the fundamental tenets of medical ethics.” This is one of the central dilemmas of military medical ethics: to whom do medical practitioners – doctors, nurses and medics owe their loyalty? Are they caregivers or soldiers first?

The preceding sections raise this question in the starkest form. To what extent should military medical workers protect their patients’ welfare when military necessity is at stake? This question arises during war and peace. While interrogation and force feeding present the dual loyalty dilemma in a most extreme form, combat operations in foreign theatres show how difficult it can be to treat compatriots, enemies, soldiers and civilian equally. Even among compatriots whose access to superlative medical care is unquestioned, military physician sometimes find it necessary to shade the truth, withhold information about medications or otherwise manipulate patients to return them to active duty. Away from the battlefield, weapons development demands that some physicians and medical scientists lend their expertise to the improvement of nonlethal weapons or enhancement techniques. Each has unique military advantages that only medical science can provide. Nor is the dual loyalty dilemma confined to war-time. Consider medical malingering. Soldiers often find it easy to fake symptoms to gain a day or two of extra leave. Solutions are not always patient friendly. Anecdotal reports describe how physicians may skirt the common guidelines for using
placebos and give them to suspected malingers to return them to duty. Here is a dual loyalty dilemma in the most quotidian terms: the patient’s interests or those of the military?

There are no easy solutions to these dilemmas. One solution asserts the primacy of medical ethics at all times “by adopting a clear doctrine stating that the ethical obligation of the military physician is always to act in the best interests of the patient (with the patient’s consent) – military, civilian, and captured enemy alike.” Concerned that military physicians subordinate patient interests to military necessity, fail to fully respect informed consent or refuse to treat all patients equally, some observers call on physicians to avoid military service altogether and contract their services to the army as part of nonmilitary national service. Extreme as this argument might sound, it might be perfectly logical if military physicians cannot assign ethical priority to their professional obligations when they enlist.

While one might certainly solve the dual loyalty dilemma by deferring to patient interests, one can just as easily defer to national security. Utilitarianism alone can provide sufficient grounds to prefer collective over individual interests during war. Neither solution, however, resolves the conflict that medical practitioners face. To defuse the dual loyalty dilemma, alternative models embrace the idea of a single actor: the “physician-soldier.” Rather than clash, doctoring and soldiering share a similar “collective ethic.” Physicians care for individuals with an ultimate concern for society, while military officers safeguard society to create a secure environment for the individual. Both professions share a concern for autonomy, dignity and life that is mutually reinforcing. Nonetheless, some circumstances force physicians to carefully evaluate the demands of medical ethics and military necessity. When treating sexual abuse or misbehavior, suicidal tendencies, eating disorders or drug use, for example, patient rights prevail because national interests is not at stake. In other instances, it may be necessary to circumscribe patient rights or withhold information to conserve manpower or preserve a mission. If national security sometimes overrides medical ethics, it is also important to remember that military necessity remains subject to fundamental human rights that protect soldiers and civilians from abuse and indignity. In this regard military medical ethics is little different from larger context of military ethics within which physician-soldiers must ply their trade.

5 Army Field Manual, 2000. FM 4-02.10, Paragraph 1.1 (d.) emphasis added
6 Army Techniques Publication. No. 4-02.5, Casualty Care. (Department of the Army Washington, DC, 2013): ix.
15 Note 6. Army Techniques Publication. § 4-62.
22 Note 9. Howe 2003


Case study provided by the IDF Medical Corps, personnel communication, 27 May, 2010.


