

Chapter 42

ETHICAL CHALLENGES OF DEPLOYED MILITARY CRITICAL CARE

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INTRODUCTION

Ethics is a branch of philosophy that deals with the study and practice of moral choices and values, and the judgments underpinning these choices and values. Medical ethics is the application of this discipline to moral choices in medicine. This chapter discusses medical ethics in deployed critical care. Of the many approaches to medical ethics, the most widely recognized are deontology, utilitarianism, and the “four principles”

approach. These will be described in turn. While ethics proposes what *should* be done, the law enforces what *must* and *must not* be done. Hence, legal sources of medical ethics will also be discussed. The chapter will then broadly consider ethical problems encountered in critical care in the deployed setting, provide examples of potential ethical conflicts, and propose some possible mechanisms to resolve these conflicts.

ETHICAL MODELS

Deontology

Deontology was espoused by 18th century philosopher Immanuel Kant. The term’s etymology is from the Greek “deon,” meaning duty. Often called “duty ethics,” deontology holds that actions are right or wrong depending upon their conformity with moral principles and regardless of their practical consequences. For example, a deontologist might argue that it is always wrong to lie, even if the lie results in a positive outcome. The most commonly cited principle that might be regarded as deontological in medicine is the principle of the sanctity of life, which states that the value of life exceeds all other values and that all lives are of equal value. This position is rarely adopted by medical practitioners, though none would be likely to deny that all lives have value.

Utilitarianism

In contrast to deontology, utilitarianism holds that the right course of action is the one that maximizes the overall “good” consequences of the action. It is thus a form of consequentialism, meaning that the moral worth of an action is determined by its results. Utilitarian philosophy may be traced to the 18th and 19th century British thinkers John Stuart Mill and Jeremy Bentham. Utilitarian principles are classically seen in the concept of triage, as proposed by Baron Dominique-Jean Larrey (1766–1842), surgeon to Napoleon.¹ Contemporary utilitarian bioethics theory continues to recommend directing medical resources where they will have most effect for good, and is used in healthcare planning, including the use of quality-adjusted life years, but the concept is controversial in many other areas.

The “Four Principles”

The “four principles” approach to medical ethics, developed in the United States by Beauchamp and Childress,² offers a universal approach to ethical decision-making in healthcare that can be applied by everyone, regardless of personal politics, religion, or philosophy. The four principles are as follows:

- (1) **Autonomy.** The principle of autonomy requires that the medical practitioner respect the decision-making capacities of autonomous persons.
- (2) **Beneficence.** The principle of beneficence requires that a practitioner take action for the good of patients.
- (3) **Non-maleficence (“primum non nocere”).** Non-maleficence requires that a practitioner avoid causing harm. All treatment, even if minimal, has the potential for harm, and the harm should not outweigh the benefits of treatment.
- (4) **Justice.** The principle of justice requires that the benefits, risks, and costs of healthcare be distributed fairly. This principle is often considered to be about resource allocation—the notion that because resources are not infinite, they must be allocated in a fair and equitable manner.

The difficulty with the “four principles” approach is that it is not clear how to resolve situations in which the principles are in conflict, as shown in the examples given below.

Despite this variety of approaches, a broad consensus about what constitutes ethical behavior in medicine has existed since the 5th century BCE, when the code of Hippocrates was written.

MEDICAL ETHICS IN TIMES OF WAR

German physicians famously violated Hippocratic principles during the National Socialist period, partici-

pating inter alia in horrific medical experimentation during the Holocaust. Hippocratic principles were

therefore reinvigorated after the Second World War in the World Medical Association's "Regulations in Times of Armed Conflict," a list of ethical guidelines for doctors practicing in war zones, first produced in 1956.³ The World Medical Association is an international organization of which the American and British medical associations are constituent members. The regulations state that "the primary task of the medical profession is to preserve health and save life," and that "physicians have a clear duty to the sick and injured." Medical attention should be given based on clinical need, not on any other criterion. Furthermore, regulation 1 states that "medical ethics in times of armed conflict is identical to medical ethics in times of peace. . . . If in performing their professional duty, physicians have conflicting loyalties, their primary obligation is to their patients." This last sentence involves a major source of ethical conflict for military physicians: the so-called "dual loyalty" problem, in which the physician has potentially conflicting duties to the patient and to the chain of command. This conflict will be discussed in further detail below.

Other responses to the unethical medical experimentation in World War II came with the Nuremberg Code (1947) and subsequently the Declaration of Helsinki (1964), both of which set out principles for the ethical conduct of medical research on humans. Central to all these documents is an inviolable respect for the unique value of human life. That medical ethics not be subordinated to political imperative is the responsibility of both doctors and civil society.

The Law of Armed Conflict

The law of armed conflict is a body of international law based on treaties and customs whose main purpose is to protect combatants and noncombatants from unnecessary suffering, and to safeguard the fundamental human rights of persons who are not, or are no longer, taking part in the conflict, such as prisoners of war; the wounded, sick, and shipwrecked; and civilians. It is traditionally divided into two parts, each named after the city where the law was devised. Hague law (based on the Hague Declaration of 1899 and Hague Convention of 1907) is concerned with how military operations are conducted, for example, prohibiting the use of expanding bullets. Geneva law, which is more relevant to military medicine, sets out requirements for the humanitarian treatment of victims of war. The first Geneva Convention of 1864 was updated in 1906 and 1929. The Conventions were revised completely in 1949, with four new Conventions dealing with the protection of (1) the wounded and sick (replacing the Conventions of 1864, 1906, and 1929); (2) the wounded, sick, and shipwrecked at sea (replacing the Hague

Convention of 1907); (3) prisoners of war (replacing the Convention of 1929); and (4) civilians. Two further protocols were added in 1977 to give greater protection to victims of international and internal armed conflicts, and another in 2005 allowing emblems other than the Red Cross to be used as symbols of humanitarian relief and protection.

The Hague and Geneva Conventions and other relevant international law have been summarized by the United Kingdom (UK) Ministry of Defence in the *Joint Service Manual of the Law of Armed Conflict*⁴ which provides definitions of the wounded and sick, outlines the duty of care to the wounded and sick based on clinical need, discusses permitted medical treatments, and emphasizes the importance of consent (Exhibit 42-2). The US Department of Defense Law of War Program provides an equivalent US source.⁵

While the ethical and legal frameworks described above may seem clear and consistent, in reality they do not provide answers to some of the practical difficulties the deployed intensivist routinely faces. Furthermore, very little academic literature deals with these particular ethical problems. In recent years, the literature has focused on ethical dilemmas faced by the military physician who is witness to torture or maltreatment of detainees.^{6,7} An additional difficulty is that no clear mechanism exists for dealing with ethical difficulties that cannot be resolved in the field or referred up the military chain of command, leaving the deployed military physician somewhat isolated in terms of ethical and legal oversight. Examples of such issues are provided later in the chapter.

Standards of Deployed Medical Care

NATO now requires military medical services, wherever possible, to provide standards of medical care for military casualties that are equivalent to, or surpass, those delivered in the home nation, despite the austere environment.⁸ This standard could potentially be offered to a large population of both coalition military and local national casualties. A previous consideration of standards of medical care for civilians argued that for broader reasons of medical infrastructure development, the standard of military medical care for local nationals should be that of the host nation.⁹ These authors assert that host nation medical development may be undermined by the presence of a high quality foreign military service. This argument is not usually applied to emergency care and is difficult to justify when life is at risk. The case can therefore be made that critical care should be provided to the same standard as critical care in the developed world for all eligible civilians. However, in the military context, allowing the field hospital to

EXHIBIT 42-1

LAW OF ARMED CONFLICT

Definition of the Wounded and Sick

“The wounded and sick are ‘persons, whether military or civilian, who, because of trauma, disease or other physical or mental disorder or disability, are in need of medical assistance or care and who refrain from any act of hostility’ [Geneva Conventions and Protocols, Additional Protocol I, 1977, Article 8(a)]. The definition goes beyond persons wounded on the battlefield to encompass anybody in need of medical treatment. That includes ‘maternity cases, new-born babies and other persons who may be in need of immediate medical assistance or care, such as the infirm or expectant mothers’ who refrain from any act of hostility [Geneva Conventions and Protocols, Additional Protocol I, 1977, Article 8(a)]. Those who carry on fighting despite their wounds are not included in the wounded and sick category.”

Protection and Care of the Wounded and Sick

“The wounded and sick are to be protected and respected. They may not be attacked. They must be treated humanely. They must be provided with medical care. They may not willfully be left without medical assistance nor exposed to contagious diseases or infection. Priority of treatment is dictated by medical need only [Geneva Convention I and II, Article 12; Geneva Convention III, Article 13; Geneva Convention IV, Article 27; Additional Protocol I, 1977, Articles 9, 10 and 11]. Violence and biological experiments are forbidden. Women must be treated with special respect [Geneva Conventions and Protocols, Additional Protocol I, 1977, Article 76(1)] and no less favourably than men [Geneva Convention I and II, Article 12; Additional Protocol I, 1977, Article 10.6].” However, “There is no absolute obligation on the part of the military medical services to accept civilian wounded and sick—that is to be done only so far as it is practicable to do so. For example, the commander of a field hospital placed to deal with casualties from an impending battle would be entitled to refer non-urgent cases elsewhere, even if the hospital had the capacity to treat them at the time. Once the treatment of a civilian patient has commenced, however, discrimination against him on other than medical grounds is not permissible.”

Permitted Medical Treatment

“Any medical procedure which is not indicated by the state of health of the person concerned and which is not consistent with generally accepted medical standards which would be applied under similar medical circumstances to persons who are nationals of the Party conducting the procedure and who are in no way deprived of liberty’ is prohibited [Additional Protocol I, 1977, Article 11(1)].”

Right to Refuse Consent

“Persons protected have the right to refuse any surgical operation. In cases of refusal, medical personnel must try to obtain ‘a written statement to that effect, signed or acknowledged by the patient’ [Additional Protocol I, 1977, Article 11(5)]. The right still exists to carry out surgery necessary to save life in an emergency without obtaining the consent of the patient in accordance with medical ethics and on the same basis as for the general population under domestic law.”

Quotations reproduced from: United Kingdom Ministry of Defence. *The Joint Service Manual of the Law of Armed Conflict*. Shrivenham, UK: Ministry of Defence; 2004. Joint Service Publication 383.

focus too much on civilian casualties may render it incapable of fulfilling its primary mission of treating

service member casualties. Balancing these different priorities can be very difficult.¹⁰

POTENTIAL ETHICAL CONFLICT IN MILITARY CRITICAL CARE

Resource Allocation and Dual Loyalties

Triage

The problem of critical care prioritization and allocation of scarce resources is common to both the civilian

and military intensive care unit (ICU). However, the deployed context involves particular constraints that do not arise in the civilian environment. The deployed field hospital is small and configured to support military operations. It may need to be mobile and usually must be capable of operation independent of other

secondary care facilities. The ICU may be quite small, with as few as two beds.¹¹ The unit's function is to provide critical care support to entitled persons, according to an established eligibility matrix, specific to the military operation. For casualties with the potential for rearward evacuation while still critically ill, a holding policy of up to 48 hours is common. Local nationals are likely to have a significantly longer length of stay, and the capacity of the ICU may be overwhelmed. In civilian practice, capacity constraints may be mitigated either by expansion of local capacity or by inter-hospital transfer. Both of these possibilities may be more difficult to achieve in the military environment.

These constraints may make triage at the point of admission to the ICU necessary. In civilian hospitals triage is used to prioritize the care of patients according to an equitable and responsible allocation of resources. The goal is to attend first to those most in need of medical attention, placing individual well-being above any broader concern. Such an approach requires the hospital to be well resourced. In most circumstances military triage follows the same general philosophy; however, critical care triage in the resource-limited deployed environment involves a choice among patients who may all benefit from emergency treatment. Patients who are not admitted for critical care are likely to have a higher mortality rate,¹² some of which may have been prevented by admission. The UK General Medical Council guidance on critical care triage states that if there are constraints on resources, the doctor must "provide as good a standard of care as you can for the patient, while balancing sometimes competing duties towards the wider population, funding bodies and employers."¹³ Guidance is explicit about withdrawing or withholding treatments because of resource constraints: the doctor "should not withdraw or decide not to start treatment if doing so would involve significant risk for the patient and the only justification is resource constraints. If you have good reason to think that patient safety is being compromised by inadequate resources, and it is not within your power to put the matter right, you should draw the situation to the attention of the appropriate individual or organisation." In the deployed ICU, this guidance often translates into triage decisions being made by a group of senior clinicians, involving the intensivist, the medical director, and the referring surgeon or physician.

Reverse Triage

In the extreme circumstances of battle, military physicians may reverse the triage procedure to focus care on those who are lightly injured or most likely to need the fewest resources to survive, allowing the most

severely injured to die.¹⁴ Such an approach allows the lightly injured to return to duty rapidly and avoids using valuable resources to treat patients who need intensive care. This approach was most famously used by the British in North Africa in 1943, when combat effectiveness of the field army was severely hampered by an epidemic of gonorrhoea. A decision was made to use penicillin, then very scarce, to treat soldiers with gonorrhoea rather than those with wound infections. The purpose was to return as many soldiers to health as quickly as possible to prepare for the invasion of Italy.¹⁵ In the future, a decision to treat lightly wounded soldiers in preference to the more severely injured might be taken, for example, in circumstances when the field army is about to be overrun, in order to maintain fighting strength as efficiently as possible. Such decisions are made against the best interests of the severely wounded soldiers, prioritizing the interests of the nation or the group above the individual. It is here that the "dual loyalty" problem is at its most stark, forcing the military physician to balance duty to the individual soldier against duty to the chain of command.^{16,17} Fortunately such circumstances have not occurred in coalition forces' field hospitals in recent conflicts.

Best Interests

The population of patients admitted to the deployed ICU may be drawn from several different demographic groups: coalition service personnel; local combatants; UK and foreign civilian contractors; UK and foreign civilian journalists and other noncontracted persons; and local civilians including the elderly, pregnant women, and children. These groups have differing healthcare needs, and on leaving the field ICU will have differing access to further medical interventions, with varying quality and clinical governance in receiving facilities. Coalition casualties will be evacuated within 48 hours to state-of-the-art tertiary referral centers in their home countries. Foreign nationals and local civilians may not have such facilities available. In many cases this will mean that either noncoalition casualties must remain in the ICU beyond 48 hours, or that transfer is effected to local facilities with attendant uncertainty about the quality of ongoing clinical care in the receiving unit. The quality and nature of rehabilitation after critical care will also differ. UK and US service members will be offered advanced rehabilitation medicine and prosthetics.¹⁸ For noncoalition casualties, rehabilitation may be of lower quality or nonexistent.

These factors raise another ethical dilemma for the deployed critical care physician: how to judge whether treatment is in the patient's best interests.

This principle is particularly important in the emergency treatment of casualties with impaired capacity at the time of presentation, for whom treatment “is immediately necessary in order save their life or to prevent a serious deterioration”¹⁹ and is justified on the grounds of best interests. However, for the benefits of treatment to outweigh its costs, casualties must have a chance of being restored to a state of health that is acceptable to them. This goal may depend upon later rehabilitation, which is not in the control of the critical care physician. Where rehabilitation is not available, the preservation of life by surgical and critical care interventions may permit a casualty to survive the critical phase with unacceptable burdens of ill health. The logical consequence of this problem is that in the case of two casualties with identical injuries and no comorbidities, it may be appropriate to resuscitate only the casualty who has access to rehabilitation. Such a decision might be considered unjust or in conflict with triage guidance.³ It might be easier to accept if surgery and critical care are not seen in isolation, but rather as part of a healthcare continuum beginning with injury and ending with reentry into the community. Although all aspects of this process may be provided for coalition casualties with coalition resources, not all may be available for noncoalition casualties.

Culture and Autonomy

Ethical medical practice requires doctors to understand the values and beliefs of the people they treat, and to be aware of cultural differences. This requirement is particularly important in the case of unconscious or emergency casualties who are temporarily or permanently without capacity, or those who have capacity but are unable to communicate their preferences due to language barriers. However, nearly all religions and cultures agree that taking all necessary measures to maintain life in an unconscious casualty is appropriate, as long as medical treatment is in the patient’s best interests. This is the position of the UK General Medical Council, English law in the Mental Capacity Act 2005, and the code of ethics endorsed by the First International Conference on Islamic Medicine held in Kuwait in January 1981. The Conference’s code also states that it is permissible for a non-Muslim doctor to treat a Muslim when the patient’s condition and skills of the doctor necessitate it. Furthermore “it is permissible for the purpose of treatment to look at hidden and private parts of the body” as “necessities override prohibitions.”²⁰ Despite this declaration, in some Islamic societies women routinely refuse to be examined by a male doctor, even if the consequences are potentially life threatening.

In most cultures doctors will respect a refusal of treatment medically considered to be in the patient’s best interests as long as the patient is competent to make the decision. For example, in the UK, doctors will not administer blood to a Jehovah’s Witness who has given a competent refusal, even if this means that the patient will die a preventable death. To give such treatment (or indeed any treatment) without consent ignores the patient’s autonomy and could make the doctor legally liable to a charge of battery or even assault. In a deployed environment, however, it is often difficult to be certain of the patient’s capacity when doctor and patient do not speak the same language or when consciousness is impaired by injuries or illness. In recent conflicts field hospitals have had interpreters for speaking with local nationals; however, gaining consent via an interpreter is difficult, and assessing the validity of a decision to refuse treatment is even more difficult.

Hypothetical Scenarios

Resource Allocation

The intensive care consultant is managing a four-bed facility with all beds occupied. All are ventilated, and there is no possibility of rearward evacuation to a critical care facility. Three casualties are local nationals, including one child. The nearest local medical facility is open to admissions, but can provide only ward-level care. The fourth casualty is a coalition service member, who has multiple cavity injuries and is receiving regular blood product transfusion and ventilator support. He is currently judged too unstable to transfer and may require further surgery within the next 6 hours, depending upon progress. No other coalition medical facilities are within the theater of military operations. The intensive care consultant is informed that a coalition soldier has been wounded at a location close to the medical facility and is inbound by road ambulance. The injuries are severe and critical care will be required.

The practical possibilities are:

- Temporarily expand the critical care resources, either inside or outside the ICU. This may be possible if advanced planning has allowed for expansion beyond four beds for a limited period. However, the same scenario might arise when an expansion has already occurred and no additional nurses are available.
- Transfer one of the other critical care casualties to a local facility. In all cases this is likely to involve deterioration in the person’s condition. Failure to provide critical care to the

incoming casualty, however, will also cause deterioration. If this option is chosen, the difficult decision of which patient to transfer must be made.

- Principles in conflict:
 - Beneficence (the obligation to provide life saving treatment to all those who need it).
 - Non-maleficence (the duty to prevent any patient from coming to harm). This is particularly relevant to the local national who may be transferred to a lower level of care local facility and could die as a consequence, and perhaps even more relevant to the child, because pediatric critical care expertise is likely to be less developed than adult critical care expertise in the local facility. It is also relevant to the inbound casualty to whom a duty of care is owed.
 - Justice (the need to allocate resources fairly and equitably). Defining “fair” and “equitable” in such extreme circumstances is difficult. Even if it is possible to keep all the casualties in the deployed field hospital, overworking staff for a period of time to avoid a nonclinical transfer to a local facility may result in poorer care for the next group of casualties.

Best Interests

The intensive care consultant is managing a four-bed facility with one bed occupied. The casualty is a local national combatant with bilateral lower limb traumatic amputations and acute respiratory distress syndrome. He is ventilated and recovering. The intensive care consultant is informed that an improvised explosive device has been inadvertently triggered nearby, causing injury to a UK service member and a local civilian adult male. On arrival at the emergency department, the two casualties are assessed. The service member has suffered traumatic amputation of three limbs, genital injuries, and significant facial, including eye, injuries. The patient is deeply unconscious but brainstem reflexes and movement have been noted. The decision is taken to attempt resuscitation, followed by preparation for either a computed tomography (CT) scan or emergency surgery, depending upon the response to resuscitation. The local civilian casualty has suffered similar injuries and a decision is taken to attempt stabilization in the same way. Both casualties are stabilized sufficiently to permit a trauma series CT scan examination. Both have cerebral contusions judged potentially survivable, but with significant risk of functional impairment. Both may

be offered surgery and critical care with a reasonable possibility of survival and independence from organ support, but they would be left with a heavy burden of chronic ill health. Local medical services do not have a well developed rehabilitation capability. All attending clinicians agree that it is appropriate to undertake surgery and critical care for the UK service member, whose rehabilitation will be extensively supported in the UK. One of the attending clinicians asks whether surgery and critical care are appropriate for the local civilian, given that he is likely to have a significant burden of chronic ill health or die later from complications of his injuries without the benefit of sophisticated rehabilitation.

The practical possibilities for the civilian are:

- Aggressive resuscitation, surgery, and critical care. This course of action would be in accordance with the presumption that life should be sustained whenever possible. It may, however, commit this casualty to a protracted period of suffering, followed by a delayed death from the complications of his injuries.
- Palliative care. This requires an assumption that the state of health realistically achievable at discharge from medical care would be unacceptable to the patient. This assumption must of course be made without the opportunity to consult the patient, and quite possibly with no opportunity to consult a relative.
- Principles in conflict:
 - Beneficence (the duty to provide medical care to any patient according to clinical need).
 - Non-maleficence (the duty to do no harm and prevent patients from coming to harm).
 - This scenario presents a classical “best interests” assessment problem: how to assess the benefits and burdens of treatment to the local national, making sure his medical, psychological, and social best interests have been taken into account. Such an assessment might be considered impossible in the acute situation, and therefore treatment to maintain life should continue.

Culture and Autonomy

A female Muslim patient is admitted to the emergency department with an abdominal gunshot wound. She has significant blood loss but is currently conscious, although unable to communicate in a comprehensible manner. She is continuing to deteriorate and needs urgent resuscitation and surgery. A male family member is present, and the interpreter says he is beg-

ging for the patient not to be touched by male staff. It is obvious from the man's demeanor he feels strongly about this, and stories have been heard of women being badly treated on returning to home after receiving medical care from male doctors. The only female medical staff available are an emergency department consultant (attending) and an anesthetic specialist registrar (resident). However, there are enough female nursing staff to care for the patient.

The practical possibilities are:

- Ask all male staff to leave the trauma bay. Manage the patient with the two available female doctors, who should have the ability to assess and resuscitate her (although not as efficiently as if more doctors were available). This still leaves the problem of how to proceed in the operating room, where male staff will need to treat the patient under general anesthesia if she is to survive.
- Ask all male relatives to leave the trauma bay and continue treatment as normal, with both

male and female staff present. Afterwards, use the interpreter to discuss the Islamic Code of Military Ethics with the male family member (and patient if possible) and explain that it was necessary for male non-Muslim doctors to treat the patient due to the severity of her condition and the skills of the doctors present. Principles in conflict:

- **Autonomy.** The refusal of treatment by a male relative is not a competent refusal on behalf of the patient and would not be respected in a developed nation.
- **Beneficence.** It is clearly in the patient's medical best interests to be treated by the normal number of staff in the normal fashion. Any other arrangement may result in compromised care.
- **Non-maleficence.** At the same time, it is better for the patient not to inflame sensitivities or put her at risk of ostracism after hospital discharge because she has been touched by non-Muslim males.

DEVELOPING AN ETHICS OF MILITARY CRITICAL CARE

The ethical issues raised in this chapter are not theoretical; they are practical matters of concern to military critical care providers. As military critical care matures, an ethical framework must be built to resolve problems such as those outlined above. The principles of medical ethics are well established. Military critical care providers should not attempt to redefine these principles, but rather should use them to illuminate the proper route to moral choices. A number of mechanisms may help achieve this ethical framework.

In the Field Hospital

If an ethical dilemma arises in civilian practice, the usual mechanism for resolution involves second medical opinions from within the hospital, second medical opinions from another institution, discussion of the case at the local clinical ethics committee, and finally, if all else fails, a referral to the courts. Similarly, in the deployed field hospital, physicians should seek second opinions from their colleagues and the deployed medical director through the normal chain of command. Issues that cannot be resolved locally should be referred back to the military medical chain in the home country if necessary. When legal oversight is felt to be necessary, the matter should be discussed with the military legal service. It is likely that any such case would need to be judged on its particular facts, with resolution of any jurisdictional issues arising from

the patient's demographic group before the ethical dilemma is approached.

Before Deployment

Empirical studies may allow critical care providers to determine what is currently considered ethically acceptable. For example, Delphi methodology could be used to determine consensus views²¹ in the context of military medicine. This methodology could be applied to those who undertake critical care practice in deployed military facilities to develop a framework for decision-making. Consensus may also be developed from clinical conferences devoted to ethics in military critical care, and incorporation of hypothetical scenarios into training for military deployment. All these approaches are being explored within uniformed medical services.

The formation of a flying ethics tribunal has been proposed to evaluate and make decisions on difficult ethical problems.^{22,23} Such a tribunal would be independent from the military command structure and might contain representatives from the legal professions, university ethics departments, religious communities, and medicine. How such a body could provide advice rapidly in an emergent scenario is, however, unclear.

However the framework is developed, the decision-making process must be legal, practical, accountable,

and clear. The choices made must be open to external scrutiny. Various groups have an interest in decision-making in this context, including clinicians, patients, regulatory bodies, uniformed service members, and the public at large. The ethical framework must ultimately be acceptable to all these groups.

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