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Target Article

Ethical Obligations and Clinical Goals in End-of-Life Care: Deriving a Quality-of-Life Construct Based on the Islamic Concept of Accountability Before God (*Taklīf*)

Aasim Padela, University of Chicago
Afshan Mohiuddin, Northwestern University

End-of-life medical decision making presents a major challenge to patients and physicians alike. In order to determine whether it is ethically justifiable to forgo medical treatment in such scenarios, clinical data must be interpreted alongside patient values, as well as in light of the physician's ethical commitments. Though much has been written about this ethical issue from religious perspectives (especially Christian and Jewish), little work has been done from an Islamic point of view. To fill the gap in the literature around Islamic bioethical perspectives on the matter, we derive a theologically rooted rubric for goals of care. We use the Islamic obligation for Muslims to seek medical treatment as the foundation for determining the clinical conditions under which Muslim physicians have a duty to treat. We next link the theological concept of accountability before God (*taklīf*) to quality-of-life assessment. Using this construct, we suggest that a Muslim physician is not obligated to maintain or continue clinical treatment when patients who were formerly of, or had the potential to be, *mukallaf* (the term for a person who has *taklīf*), are now not expected to regain that status by means of continued clinical treatment.

Keywords: end-of-life issues, Islamic bioethics, life-sustaining treatment, *mukallaf*

Physician responsibilities and ethical obligations in end-of-life care comprise an area of much scholarly debate and represent an area rife with policy implications. Clinicians participating in end-of-life care deliberation may struggle to strike a balance between their competing ethical responsibilities to patients, society, and themselves. As clinical advisors to patients and their surrogate decision makers, clinicians are responsible for finding a clinical course that best serves the patient's values; as stewards of medical resources, clinicians are to exercise prudence when utilizing costly therapeutics; and as individuals with their own moral commitments, clinicians must remain true to their own (ethical) selves. Accordingly, reaching consensus among the clinical care team and the patient (or his surrogate decision makers) regarding the most appropriate goals for clinical care in end-of-life scenarios is extremely complex: Clinical data, patient and familial values, societal norms, and professional ethics may intersect in complicated ways.

For some clinicians (as well as for patients and their families) religion serves as a source of guidance when considering goals of care, and thus knowing the circumstances under which one's religious tradition ethically justifies withholding or withdrawing therapeutics near the end of life can be important. The importance of religious values in end-of-life decision making has been demonstrated in several surveys of American physicians, which found that physicians' religious characteristics predict ethical attitudes and medical practice patterns (Christakis and Asch 1995; Kaldjian et al. 2004; Lawrence and Curlin 2009; Stern, Rasinski, and Curlin 2011). For example, according to a national survey of American physicians, physicians who were more religious tended to view patients in otherwise dire clinical circumstances as maintaining a life worth living and they morally object to helping terminally ill patients to hasten their own deaths (Antiel et al. 2012). These data support findings from another survey where Christian and Jewish clinicians were less willing to withdraw life support from patients who were critically ill and/or comatose, even though such actions would cohere with the patient's previously stated goals of care and their

Address correspondence to Aasim Padela, University of Chicago, Initiative on Islam and Medicine, Program on Medicine & Religion, 5841 S. Maryland Ave., Chicago, IL, 60637, USA. E-mail: apadela@medicine.bsd.uchicago.edu

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surrogate decision makers' current wishes (Christakis and Asch 1995). In this article we turn our attention to American Muslim physicians and Islamic bioethical perspectives on goals of care at the end-of-life.

American Muslim physicians are a growing and diverse part of the physician workforce whose medical practice may be influenced by their faith. While it is difficult to calculate with certainty, American Muslim physicians are estimated to number at least 50,000 and comprise nearly 5% of the physician workforce (Abu-Ras, Laird, and Sensai 2012; IMGs by country of origin 2007). This group is ethnically and racially diverse and includes immigrants from South Asia and the Middle East, native-born second- and third-generation descendants of immigrants from this region, indigenous African Americans, and others (Muslim American Population Demographics 2014). Despite the diversity among these groups, however, Islam appears to unify some of their medical practices and experiences in important ways. Our exploratory qualitative study found that Islamic values influence Muslim physicians by (1) motivating them to live out virtuous character traits in the patient–doctor relationship, and by (2) setting the ethicolegal boundaries of their practices (Padela et al. 2008). In a subsequent national survey, American Muslim physicians appeared to be ethically challenged by end-of-life care decision making and searching for religious guidance about these scenarios. Nearly 70% of respondents reported greater psychological distress when withdrawing life-sustaining treatment than when withholding it, and nearly 50% were unsure whether Islam permitted withdrawal of feeding tubes near the end of life or whether brain death could be considered true death according to Islam (Padela unpublished data).

Part of the confusion Muslim physicians may have relates to the fact that most Islamic ethical/legal verdicts (*qarārāt* and *fatāwā*)[1] and Muslim physician organization position papers expounding Islamic perspectives on end-of-life care are not concrete or nuanced enough to provide moral guidance. Specifically, they do not clearly describe the clinical scenarios that their ethical/legal assessments cover, nor do they identify the religious obligations of Muslim physicians (Mohiuddin 2012; Padela, Shanawani, and Arozullah 2011). For example, several of the ethical/legal verdicts permit end-of-life treatment abatement when treatment is deemed "useless" or "futile" (Ali Gomaa 2011; Islamic Organization for Medical Sciences [IOMS] 2005; Yusuf al-Qaradawi 2011). Yet none of these verdicts clarify what sort of care is deemed futile from an Islamic bioethics perspective.

Given this backdrop, this article serves to fill a knowledge gap regarding Islamic ethical/legal perspectives on end-of-life care. To fill this gap and to spur critical conversations regarding futility and end-of-life care ethics within academic, professional, and religious circles, we argue that the obligation placed on Muslim physicians to treat patients emerges as a corresponding duty to provide clinical care when Muslim patients are Islamically obligated to seek medical treatment. Using this paradigm we map out Islamic ethical obligations related to clinical care provision during end-of life care. Since quality-of-life discussions are germane to clinical goal-setting deliberations, we propose tying quality-of-life determinations from an Islamic bioethics perspective to the theological concept of accountability before God (*taklīf*). An individual with *taklīf* is known as a *mukallaf* and represents a "clinical/physiologic" state where one can perform willful actions while being cognizant of their potential afterlife ramifications.

For the purposes of this article, we restrict ourselves to discussing the potential of an individual attaining, or regaining, *mukallaf* status. Consequently, our hypothetical case concerns a patient who was eligible for, or was previously of, *mukallaf* status and is struck by an illness or injury that calls his *mukallaf* state into question. Translating this scenario into the clinical realm, we begin our analyses by considering the goals of care for an adult patient who had the cognitive capacity to be liable for his actions before God (the patient's religious affiliation is not of consequence, as we explain shortly), or could have matured into such a state, and who has now been afflicted with an illness/injury that compromises such cognitive functioning. This particular clinical scenario is often encountered in practice, and is one where ethical dilemmas may arise from the differing values of physicians, surrogate decision makers, and even hospital administrators. Our task is to map out an Islamic perspective on the goals of care for such cases and to delineate the relevant Muslim physician's Islamic ethical/legal obligations toward clinical care provision. After we devise a theological basis for goals of care and quality-of-life assessment that can be grafted onto a theoretical framework by which physicians ethical/legal duties can be delineated, we apply our schema to a clinical scenario involving patients in a persistent vegetative state.

This article fills critical gaps in the bioethics literature regarding quality-of-life assessment through an Islamic bioethical lens, and provides an ethical rubric by which Muslim physicians can consider religious perspectives about therapeutic goals in the critical and end-of-life care setting. Additionally, the article aims to spur discussions among the scholarly and lay community, both Muslim and non-Muslim, regarding the ends of medicine, a topic that is ever more relevant in light of an increased pluralism in society, greater constraints on resources, newer technological advancements in medicine that push the boundaries of what sorts of "life" are possible to maintain, and demographic projections that suggest an ever-increasing number of individuals will be faced with end-of-life care choices.

1. *Fatawa* (singular: *fatwa*), nonbinding ethical/legal Islamic opinions by a qualified Islamic jurist consult or committee of such scholars; *qararat* (singular: *qarar*), Islamic opinions issued by a committee of Islamic jurists.

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MUSLIM PHYSICIAN OBLIGATIONS TO TREAT PATIENTS

Before discussing patients' "rights" and physician "duties," a brief description of Islamic theological perspectives on "rights" is necessary. The Arabic word often used to connote "rights" in modern Islamic discourse is *ḥaqq (pl. ḥuqūq)*. Yet instead of corresponding to "rights" as understood in human rights discourse, *haqq* carries the meaning of "that which is due to God or man" (Moosa 2000), and it is this meaning that is communicated when used within Islamic ethical/legal discussions. It is important to recognize that Islamic moral theology divides obligations into three categories: the rights of God (*ḥuqūq Allāh*), the rights of humanity (*ḥuqūq al-'ibād*), and rights that are shared by God and humankind. "Rights of God" encompass those duties that are of a devotional kind (e.g., the five pillars of worship) as they primarily have religious ends (Moosa 2000), as well as those that are "beneficial to the community at large and not merely to a particular individual" (Kamali 2003). The "rights of humankind" are those that involve private interests. These involve civil imperatives and rationales such as the "right to own the object (one) has purchased" (Kamali 2003, 448). The main distinction between "rights" of God and those of humankind lies in whether the resultant obligation can be exempted by the individual; in the former category it cannot be, while in the latter it is possible. The shared rights category is diverse and one where both public and private interests are at stake.

In this framework, many obligations due to humanity result from a divine commandment or prohibition, and thus can be classified as obligations due to God as well. A classic example involves the right to material inheritance in which the Qur'ān spells out the shares of inheritance due to each relative. Hence while family members have the right to inherited wealth from their deceased relative, the fulfilment of these rights of man are also in obedience to a Divine commandment and, as a result, fulfil the rights due to God.

Proceeding from the notion that divine commandments create ensuing obligations, Islamic moral theology (*uṣūl al-fiqh*) stems primarily from two scriptural sources: the Qur'ān and the example of the Prophet Muḥammad (*sunna*). Both of these sources are a part of the same revelatory transmission and are thus classified as divine communication (*wahy*). Using these two sources as the fountainheads for ethical obligations, Islamic scholars have elaborated a science, an Islamic moral theology—*uṣūl al-fiqh*—by which to assess actions along a moral gradient from obligatory to forbidden.[2] An assessment of this type is termed *ḥukm taklīfī*, and it links human action to expected afterlife ramifications—God's reward, punishment, or indifference. Accordingly, in Islamic ethical/legal discourse, an obligation refers to either (i) the necessity of performing an obligatory act or (ii) the avoidance of a prohibited act, with the fulfillment of either action accruing eternal reward (see Table 1).

Having described the moral framework of Islam, let us move to discuss when a Muslim physician is Islamically obliged to offer medical treatment. Since Islamic law considers actions that are required to fulfill an obligation to also be obligatory in and of themselves, and notes a corresponding relationship between one's obligations and another individual's duties, it follows that a Muslim physician is obligated to offer treatment for clinical circumstances that mandate a Muslim patient to seek medical care (Kamali 2003).

Some prominent medieval Islamic jurists, including the late 11th- and early 12th-century Shāfi' jurist-theologian Imam al-Ghazālī and the Hanbali jurist-theologian Ibn Taymiyya, held that seeking medical treatment is obligatory for a Muslim when cure is certain and the proposed treatment is life saving (Albar 2007; Ghaly 2010). While Yacoub refers to this position as the consensus-based position of all jurists (Yacoub 2001), others note that the majority of scholars within the Ḥanafi and Malīkī schools of law viewed seeking medicine (tadāwī) as a permitted action (mubāḥ) but one that was not obligatory (Ghaly 2010). The more cautious position may have derived from the fact that medieval jurists were concerned about the efficacy and safety of medications during their time. Imam al-Ghazālī and others divided medical treatment into three categories based on the presumed curative capacity of therapeutics: certain (qāṭi'), doubtful (ẓannī), and highly unlikely (mawhūm) (Ghaly 2010; Yacoub 2001). These jurists held that therapeutics within the first category, those deemed to be effective at healing, are obligatory for a Muslim to seek if he or she would most likely or certainly die without it (Ghaly 2010). A Muslim bleeding to death was offered as a paradigmatic example for this case. Such an individual would be obliged to seek medical treatment as his treatment would be life saving upon the condition that medical therapy can stop the bleeding and prevent death (Ebrahim 2006, 2008; Yacoub 2001). Neglecting to seek such life saving treatment would be consequently sinful. Ibn Taymiyyah, according to Albar, concurred with this view (Albar 2007). In the case where the effectiveness of treatment is doubtful (ẓannī), Imam al-Ghazali considered it permissible to refuse such therapy (Yacoub 2001).

According to Ghaly, advances in therapeutics have changed the assessment of medical therapy for many modern jurists. For them, it appears that seeking medical treatment is more readily deemed an obligation as they do not interrogate the posited therapeutic's effectiveness (Ghaly 2010). In 1992, the Council of the Fiqh Academy, which includes Sunni jurists from all four schools of Islamic law as well as Shi'i jurists, judged seeking modern medicine to be obligatory when neglecting treatment may result in the person's death, loss of an organ, disability, or if the illness is contagious and a harm to others (Resolution and recommendations of the Islamic Fiqh Academy 2000).

2. This gradient ranges from obligatory (*farḍ* or *wājib)* to recommended (*mandūb* or *mustaḥab)* to permitted (*mubāḥ*) to discouraged (*makrūḥ*) and, finally, to prohibited (*ḥarām*). For more information, see Table 1.

Table 1. Moral status of actions in *Shari'ah*

Status	Meaning in this life	Consequence in hereafter
Wajib or Fardh—obligatory	Minimum actions needed to be performed to be considered part of the Islamic community	Reward for performance Punishment for neglect
Mandūb or Mustahabb—recommended	Commendable actions	Reward for performance No consequence for neglect
Mubah—permitted	Neutral Actions	No reward or punishment
Makrūh—discouraged	Should be avoided as a way to piety	No punishment for performance Reward if avoided
Haram—prohibited	Routine performance of some of these acts or considering it legitimate to perform them may lead to a person being deemed a non-Muslim	Punishment for performance Reward for avoidance

Note. Adapted from Reinhart (1983).

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Importantly, there is agreement between the contemporary juridical ruling above and the opinions of some prominent medieval jurists in there being an obligation of a Muslim to seek "life saving" treatment. As discussed earlier, when there is an obligation for Muslim patients to seek treatment there is a corresponding obligation to provide such treatment placed upon the Muslim physician. Consequently, a Muslim physician is morally liable to treat limb- or life-threatening diseases, diseases that cause disability, and contagion. In this article the most relevant category for ethical consideration at the end-of-life is "life saving" treatment. Muslim physicians are Islamically obliged to provide, and to not withhold, treatments that are considered to be "life saving" with a reasonable degree of certainty. But what amounts to a "life saving" treatment?

REFLECTING ON "LIFE SAVING" THERAPEUTICS

To medieval jurists, determining the constitution of a life saving treatment was relatively simple and self-evident. Illustrated in the paradigmatic example of a patient with life-threatening hemorrhaging, jurists defined any treatment that halted a potential life threat as life saving. This rather clear example has been made fuzzy by the technoscientific reality of modern medicine. Today, medical treatments can prolong physiological function without cognitive-affective functioning as our manipulative capacities continue to grow. Therefore, before determining the contours of life saving therapy, we must first determine what sort of life Islam seeks to preserve via medical treatment.

To begin with, let us consider whether Islam considers physiological indicators of life, for example, heart rate or breathing, without consciousness a sort of life that should be maintained ad infinitum. Some Islamic jurists of the Shi'i denomination, such as Grand Ayatollah Sistani and al-Khu'i, state that once treatment has started, physiological life in and of itself must be saved, and therefore, life support systems should never be withdrawn.[3] While other Shi'i jurists might hold differing views, Sunni Islamic jurists routinely allow for the withdrawal of life support when certain clinical parameters are met. For example, Sunni jurists permit the cessation of life support measures when the patient is "terminal" or when care is "useless" (Ali Gomaa 2011; Islam question and answer—Ruling on removing life-support for a cancer patient 2012; Islamic ruling on euthanasia, Fatwa Dept. Jamiatul Ulama [KZN] 2011; Jad al-Haqq 1989, 249; Yusuf al-Qaradawi 2011). Although the terms *useless* and *terminal* are vague, we glean from these verdicts that a physician's obligations to provide clinical treatment do not extend to conditions where continued treatment offers no benefit. Defining what sorts of clinical scenarios equate to such states is the matter at hand.

Controversies around brain death offer some further insight into what might serve as the foundation for a quality-of-life metric according to Sunni theology. From these debates it appears that prolonging mere physiological life—or more appropriately the physiological functions of the body—is not consonant with Sunni Islamic bioethical values. While most Sunni authorities consider legal death to occur when the soul has left the body, they nonetheless allow for the removal of life support when brain death is declared (Padela, Shanawani, and Arozullah 2011). Consequently, brain-dead physiology lies below the clinical threshold that would oblige Muslim physicians to continue or initiate clinical treatments.

Although the Islamic bioethics literature lacks specificity on a quality-of-life construct that emerges from

3. Alibhai reports that withdrawal of life-sustaining treatment is not permissible, according to Ayatollah Sistani and al-Khu'i. Lack of improvement does not justify withdrawal of life-sustaining treatment. See Jaffer and Alibhai (2008).

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theology, we find that the juridical decrees offer two broad guidelines for when no Islamic obligation exists to initiate (or continue) life support: (i) when the clinical state of a patient is such that medical care is "useless," and (ii) when individuals have brain-death physiology. We build upon these guidelines in what follows by developing a quality-of-life construct rooted in Sunni Islamic theology that can assist with determining Islamic ends for end-of-life clinical treatment.

THE ISLAMIC "ENDS" OF MEDICAL TREATMENT IN THE CONTEXT OF END-OF-LIFE CARE

Contemporary Muslim scholars mention that a patient's quality of life should be considered when deciding whether to continue or curb medical treatment (Albar 2007; Ebrahim 2000; Ebrahim 2008; Gatrad and Sheikh 2001; Rahman 1987; Sarhill 2001). For example, the 20th-century Islamic scholar Fazlur Rahman believed that artificial prolongation of physiological life is not congruent with an Islamic ethos unless the life prolonged is a life "worth living." (Rahman 1987, 109). Commenting on the Qur'ānic verse "he whom We bring unto old age, We reverse him in creation (making him go back to a state of weakness after strength)" (36:68), Rahman argues that near the end-of-life "the improvement of the quality of life along with its prolongation…earn(s) the approval of Islam" (Rahman 1987, 109; Sonn 1996).

Following his lead, we argue that an Islamically consonant goal for medical care at the end of life is to help patients return to (or maintain) a state that allows for accruing benefits, and that the state of being able to potentially benefit from life represents a theological yardstick for assessing quality of life. Consequently, a Muslim physician would be ethically obligated to initiate and/or continue medical treatment that assists with reaching the clinical status that corresponds to this theologically defined life of "benefit."

Let us examine the theological notions that can define a life that has maximal utility. According to Islamic theology, worship (*'ibādah*) is the raison d'être of human creation. The Qur'ān states, "I created the jinn and humankind only that they might worship Me (51:56)" (Pickthall 1938). Statements of the Prophet Muhammad further link salvation to the successful completion of worship practices. For example, a person who completes the Hajj with excellence is guaranteed paradise [Book 7: 3127] (Siddiqui 1976), as is one whose performance of the five daily prayers is sound [Hadith 9] (An-Nawawi 1977). The Qur'ān also underscores the life-long obligation for worship and reminds individuals to be in a state of worship when death approaches: "And worship your Sustainer till death comes to thee" (15:99) (Asad 1964).

Islam's source texts, therefore, lay out worship to be the core purpose of existence, assert that satisfactorily fulfilling worship activities is salvific, and remind Muslims to be mindful of worship obligations near the end of their life. Furthermore, Prophetic traditions underscore the notion that a life of benefit is one that allows for gaining afterlife rewards. The Prophet Muhammad taught his followers to pray for the extension of life when worldly existence continues to offer the chance for doing works that have afterlife benefits and to pray that the occasion of death represents being saved from committing evil deeds [35:6480] (Siddiqui 1976).

These scriptural references assist us in developing a goal for medical treatment at the end of life by providing a quality-of-life index. If an individual's primary duty in life is to worship God so that one can gain afterlife reward, and if a beneficial life is defined as one that provides the opportunity to seek such rewards, then the clinical states that maintain a quality of life are those that uphold an individual's ability to perform deeds that can attain God's pleasure (such as worship). Conversely, clinical states that do not maintain these abilities are of diminished quality as they apparently have minimal religious utility.

Mukallaf status in Islam represents the theological station where an individual has the cognitive faculty to recognize God and thereby can benefit his afterlife by performing religious practices (worship) or other meritorious actions willfully. On account of these capacities a *mukallaf* is accountable in front of God for his actions. *Mukallaf* status is linked to the maturity of intellect (*'aql*). Since intellectual maturity is ambiguous, Islamic jurists link the physically "objective" criteria of reaching puberty (*bulūgh*) as the minimum age for having *'aql*. Before reaching puberty one is not deemed fully accountable for his actions, but after this age, unless one has a mental handicap, a person is considered accountable before the law (and in front of God). Islamic theologians consider the development of intellectual maturity to begin with the ability to distinguish between things that are beneficial and harmful (*tamyīz)* and to end with the adoption of righteous character (*rushd*). At a minimum, then, being *mukallaf* rests upon having the mental capacity to distinguish between beneficial from harmful actions.

While the *mukallaf* classification in Islamic terminology is reserved for adults, the goal for end-of-life care is represented by the potential of becoming *mukallaf.* Working toward the restoration of minimal cognition applies equally to children and adults because allowing for a child (regardless of the child's faith) to reach adulthood with his cognitive capacity intact represents the restoration of the potential for *mukallaf* status.[4]

4. While our discussion has thus far pertained to the Muslim patient, our rubric can be extended to cover non-Muslims by considering them as potential *mukallafs.* In our view, Muslim clinicians should seek to maximize quality of life for all patients irrespective of religious affiliation and should consider each patient's values (religiously rooted or otherwise) regarding quality of life when making treatment decisions. For the Muslim clinician motivated by Islamic bioethical guidelines, extending our rubric to cover non-Muslims as we suggest may be helpful and indeed demonstrates the robustness of our theory.

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It is important to note that this goal is restricted to individuals who had potential *mukallaf* status prior to the present illness; persons with diminished mental faculties prior to the present illness require another end goal for medical treatment. In our opinion, irreversibly non-*mukallaf* individuals (prior to injury or illness) necessitate exceptions to our proposed quality-of-life metric for several reasons. First, non-*mukallaf* persons are not a uniform category, as individuals have considerable variability in psychosocial and cognitive functioning. Consequently, Islamic jurists shy away from categorical determinations in their *fatawa* about non-*mukallaf* individuals and rely more heavily on specific circumstance and context (Rispler-Chaim 2006, 19–39). Indeed, Islamic law steadfastly leans toward protection of individuals with diminished mental capacity and suspends ethical/legal accountability for specific acts based on particular individual mental capacities. Theologians also debate whether non-*mukallaf* individuals are admitted to paradise without accounting or whether they receive afterlife benefits for worship activities. It thus appears inappropriate to conceptualize a "life worth living/saving" based on a category of individuals that the ethical/legal tradition treats ambiguously. Another measure of quality of life is required, and another ethical framework needs to be developed for considering the Islamic bioethical perspective on the initiation or abatement of clinical treatment at the end of life for such persons.

Returning to the central case at hand, an individual with the potential of being *mukallaf* is an individual with maximal quality of life because he retains the potential of volitionally performing deeds that will benefit his afterlife. If an illness or injury does not threaten an individual's *mukallaf* potential then that patient's ultimate quality-of-life is not threatened. But where an illness or injury compromises the *mukallaf* potential of an individual then a Muslim physician must work to restore this capacity. And when clinical treatment cannot restore or maintain the *mukallaf* potentiality of a person who was formerly *mukallaf* then there is no Islamic obligation upon the Muslim physician to maintain or initiate such treatment. In other words, the clinical state has rendered the individual unable to perform acts that accrue afterlife benefits and there is no religious utility to prolong such a physiological state interminably. In this irremediable clinical situation, it is not mandatory to provide or maintain medical treatment (from the perspective of the physician and the perspective of the patient's surrogate decision makers).

Before moving to a real-world clinical application of our derived construct for quality-of-life assessment, two further points need to be made: (i) *Mukallaf* status extends beyond accountability for worship to encompass accountability for all worldly acts, and (ii) meritorious deeds are not restricted to worship. While a Muslim is first held to account for discharging obligations of worship because these are the foremost of meritorious acts and the "rights" of God upon a Muslim, Muslims are accountable for living a life that coheres with Islamic values and Islamic law in their social, economic, and other dealings. Consequently, all of an individual's activities, not just worship, can gain Divine pleasure and reward. This latter notion is critical to remember because individuals who are exempt from specific worship activities due to illness (fasting while sick, for example), or poverty (the Hajj is not mandatory for the one who cannot afford it), or physical incapacity (if unconsciousness exceeds five prayer occasions some scholars hold that such an individual is not liable for prayer until he returns to consciousness) (Rispler-Chaim 2006, 23), still retain the ability to engage in other acts that have afterlife benefit. Thus, the Muslim physician must work to restore cognition so that patients can engage in willful activities.

Furthermore, it must be noted that preconditions for *mukallaf* status (*'aql* and acceptance of Islam) are the same as those of *ahliyyah al-adā*, active legal capacity, in Islam. *Ahliyyah al-adā* is a legal construct that gauges a person's intellectual capacity to execute a contract, dispose of property, or engage in economic transactions (Arabi 2013). The two terms *ahliyyah* and *mukallaf* are sometimes used interchangeably, and are closely related with some scholars considering *ahliyyah* to undergird *mukallaf* potentiality. Nonetheless, we opt to tie quality of life assessment to the theological concept of *mukallaf* instead of the legal notion of *ahliyyah* because the former concept is broader and includes moral accountability. The latter term, on the other hand, was developed by jurists for civil law purposes such as the need to protect minors and those with diminished mental capacities. Since our context is a medical one where we are concerned with goals of therapy, it behoves us to use constructs with the widest scope as future religious scholars and bioethicists may come up with a different schema to consider the hallmarks of *mukallaf* potentiality in the clinical domain.

A LIFE WORTH SAVING: USING MUKALLAF STATUS POTENTIAL AS A QUALITY-OF-LIFE ASSESSMENT TOOL IN END-OF-LIFE CLINICAL DECISION MAKING

With *mukallaf* status representing a life of maximal quality since it allows for doing works that have afterlife benefit, the goal of medical treatment near the end-of-life is to maximize the chance for an individual (i) to regain this status in the case where an individual was formerly *mukallaf* and lost this capacity due to illness and (ii) to preserve the cognitive functioning of an individual who has the potential to become *mukallaf* in the future. These ends of medical care establish Islamic bioethical obligations upon a Muslim physician beyond medieval conceptions that held Muslim physicians ethically liable to provide clinical treatments that are "life saving." We tie Islamic obligations near the end of life to providing treatment that restores human functioning such that the patient can perform acts of afterlife benefit and have a life of maximal quality. In related fashion, Muslim physicians are not Islamically obligated to continue medical treatment when the therapy is not likely to result in the regaining of *mukallaf* potential.

Table 2. Potential clinical scenarios and the corresponding ethical obligations of a Muslim physician

Patient/surrogate's expressed wishes regarding clinical care	Expected outcome of medical therapy	
	The patient will not recover potential *Mukallaf* status	The patient will regain *Mukallaf* potential
Desires clinical therapy (initiate or maintain)	Not obliged to provide clinical treatment (A)	Obliged to provide clinical treatment
Desires noninitiation or cessation of clinical therapy	Not obliged to provide clinical treatment	Obliged to provide clinical treatment (B)
No expressed wishes	Not obliged to provide clinical treatment	Obliged to provide clinical treatment

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The physician's prognostication about whether medical therapy can restore *mukallaf* status potential should be based on clinical experiences (both personal and that of colleagues) and on published empirical data. As for how certain the physician needs to be about his prognosis, we suggest that dominant probability (*ghalabat al-ẓann*) is acceptable.

OTHER PRACTICAL CONSIDERATIONS

Medical decision making not only depends on whether or not the continued medical treatment allows for the recovery of *mukallaf* status, but also must account for the values of the patient regarding life support (in the form of advance directives or conversations with surrogate decision makers).[5] In Table 2, we apply our rubric to map out the ethical obligations of the Muslim physician based on clinical circumstances and patient (or surrogate) wishes.

Generally, for all the cases outlined in the table, a Muslim physician would not be Islamically obliged to provide clinical therapies (sustain or initiate therapy) where the patient is not expected to regain the mental capacity for *mukallaf* status. In cases where clinical treatment is likely to allow for the regaining of the cognitive capacities needed for *mukallaf* status, the Muslim physician has an Islamic bioethical responsibility to provide such treatment.

Cases that present potential value conflicts are cases A and B. In case A the patient (through prior advanced directives) or his surrogate decision makers desire for the initiation or continuation of medical therapy that has little chance of allowing for the recovery of *mukallaf* potentiality. In this scenario a Muslim physician has no Islamic obligation to continue/initiate such treatment. To assess the Islamic bioethics perspective upon this situation we must consider whether the Muslim physician would be considered sinful if she were to initiate or continue clinical therapeutics. In Islamic moral theology even if one is not obligated to do a certain action one can choose to perform the action, that is, the action lies in the realm of the permitted (*mubāḥ*), unless there is an explicit Qur'anic or Prophetic prohibition against the action. Our view is that the Muslim physician would need not fear ethical sanction for the action. Juridical opinions addressing this situation implicitly reflect this perspective as they note that it is permitted to forgo life-sustaining treatments and do not claim that the Muslim physician or Muslim patient (and his surrogate decision makers) is obliged to discontinue or forgo therapy (Ali Gomaa 2011; Islamic Organization for Medical Sciences [IOMS] 2005; Yusuf al-Qaradawi 2011).[6] Nonetheless such scenarios warrant further ethical/legal debate among Islamic bioethicists, as the person whose physiological life, but not cognitive capacities, are preserved by medical treatment may become a mere instrument for others putting his intrinsic human dignity at risk.

In case B the patient (or his surrogate decision maker) refuses initiation or continuation of treatment that seems assured of allowing for the recovery of *mukallaf* potentiality. According to our rubric, an Islamic obligation exists to offer medical treatment since it would help the patient recover *mukallaf* potentiality. These questions may be of particular concern to Muslim physicians practicing in environments where the patients' expressed wishes and those of surrogate decision makers are accorded the dominant weight in medical decision making. The professional ethics

5. Although it is accepted that (all other things being equal) every competent patient has the right to accept or reject any intervention, the appropriate decision-making process for mentally incompetent patents who do not have advance directives remains under debate. The most accepted solution is that others ("surrogates") may make decisions on behalf of incompetent adult patients (surrogate decision making). Depending on whether the patient preferences are known or inferable, a surrogate may either use "substituted judgment" or "best-interest" standard to make the decision.

6. Two of the *fatawa* do encourage forgoing life support in certain condition for unspecified reasons, but it is clear that they are only recommendations and not obligations to forgo treatment. IOMS says that "treatment of patients whose condition has been confirmed to be useless by the medical committee *should* not be commenced," (italics mine) and interestingly, Yusuf Qaradawi says that it may be in some circumstances *recommended* to suspend medical treatment.

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challenge of respecting the patients' autonomy (first order, second order, etc.) in refusing clinical treatment while holding fast to one's moral commitments has been legally addressed in the United States. Forty-eight states have advanced directive laws under which patients can specify their desires for treatment (or nontreatment) via living wills (Advance health directives & surrogate decision-makers, 50 State surveys 2012). The vast majority of these laws allow providers to conscientiously refuse to provide or maintain medical treatments suggested by these wills provided that they inform the patient (or patient's surrogate) of the conflict, attempt to negotiate a resolution to the conflict that suits both parties, and if unable to breach the impasse transfer clinical care to another medical provider. Hence recusing herself from clinical care appears a way out for the Muslim physician who feels that she is Islamically obligated to continue or initiate medical treatment in the face of patient or patient surrogate refusal. However, when the transfer of clinical care is not possible, courts have held that the patient's right to refuse life-sustaining measures overrides the medical professional's moral objection and that the patient's wishes must be honored (Harrington 2006; White 1999). Furthermore, some Islamic authorities suggest that a Muslim physician is (Islamically) obliged to abide by the "law of the land" even if she has moral objections to certain medical treatments, thereby resolving the perceived conflict between Islamic obligations on the part of the physician and patient preferences (Arozullah and Kholwadia 2013).

APPLYING OUR ETHICAL FRAMEWORK TO PATIENTS IN A PERSISTENT VEGETATIVE STATE

Persistent vegetative state (PVS) is a clinical state of unconsciousness in which there is no evidence of self- or environmental awareness and no evidence of movement requiring planning or cognition. Yet such patients retain sleep–wake cycles and some hypothalamic and brainstem functioning (Medical aspects of the persistent vegetative state (1). The Multi-Society Task Force on PVS 1994). According to medical science, patients in PVS are "awake but not aware" (Medical aspects of the persistent vegetative state (1). The Multi-Society Task Force on PVS 1994) and are not able to generate volitional activity.[7] After conducting an extensive review of the medical literature, the Multi-Society Task Force (MSTF), a group made of representatives from five different neurological associations, concluded that PVS ensuing from a nontraumatic event is permanent when lasting longer than 3 months. By "permanent" the task force states that the probability of regaining consciousness and volitional activity is practically zero (Medical aspects of the persistent vegetative state (2). The Multi-Society Task Force on PVS 1994, 1572). Other groups take a more conservative stance and suggest that PVS patients are not likely to regain consciousness after a year has passed (American Medical Association 1990).

Overlaying the clinical prognosis of permanent PVS onto Islamic theology, we can say that permanent PVS represents a non-*mukallaf* state. The patient has neither awareness nor the ability to engage in willful activity, and thus does not have the potential to recognize God or to perform acts that may benefit his afterlife. In terms of legal capacity, PVS falls within the category of unconsciousness in Islamic law where the unconscious (*mughma 'alayhi*) person is exempted from religious obligations and criminal liability because the integrity of the *'aql*, a precondition for *mukallaf* status, is lost (Rispler-Chaim 2006). According to our ethical framework, when a patient who was formerly eligible for *mukallaf* status lapses into PVS (or an analogous clinical condition) the Muslim physician has no Islamic obligation to initiate or continue clinical care. This is because currently available medical therapies cannot restore the cognitive capacity or the potential for volitional activity to the permanently PVS patient; the potential for *mukallaf* status cannot be regained by the application of clinical therapeutics. We must stress that the Islamic bioethical obligation rests on the current state of medical knowledge and therapy; if medical consensus changes or if new epidemiological data challenges the dismal prognosis of PVS, then the ethical obligations would also change.

In the clinical domain, PVS patients may require ventilatory assistance in addition to other types of therapeutics such as antibiotics, nutrition and hydration, and nursing care. Akin to Jewish bioethics, Islamic bioethics distinguishes between medical therapy and nutrition. Although Muslim physicians may not be obliged to offer medical therapies, nutrition and hydration are considered apart from medical treatment because Islamic scholars believe feeding to be a communal responsibility. Accordingly, several Muslim authorities hold that nutrition and hydration should not be withheld (Alibhai 2008; Islam-USA—Artificial life support? 2012; IslamiCity.com—Questions of life and death 2012). The Islamic Medical Association of North America (IMANA) also shares this view, although it does permit withholding a feeding tube once it has been removed for a medical indication (Islamic medical ethics: The IMANA perspective 2005). While these commentaries deliberate over the withholding of nutritional support, they remain unclear as to whether a Muslim physician is ethically obliged to initiate nutritional support. Given that our rubric applies to clinical therapy and that Muslim jurists separate clinical treatment from nutrition, our ethical framework is also silent to this issue. The insertion of feeding tubes or intravenous lines may fall within the realm of clinical care but these mechanisms are often needed to provide nutrition to patients—hence the line

7. Although relatively recent functional magnetic resonance imaging (fMRI) studies have shown that a small proportion of patients in a vegetative state have brain activation reflecting some awareness and cognition, the level of awareness and cognition is far from that required by the *'aql* criteria for *mukallaf*.

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between feeding and clinical treatment is not unambiguous. We suggest further deliberation between Islamic jurists and medical scientists to clarify the ethical mandates surrounding feeding near the end of life.

Our bioethical framework of using the theological concept of *mukallaf* as the foundational marker for quality of life and then building up Islamic bioethical obligations regarding clinical care from this foundation yields results that are consistent with several Islamic verdicts and with medical practice in the Muslim world. While the verdicts do not discuss *mukallaf* status, the fact that they arrive at the same conclusion suggests that our framework has both utility and coheres with the Islamic ethical/legal tradition. In their Medical Code of Ethics, the Islamic Organization of Medical Sciences (IOMS) opines, "In his defense of life, however, the doctor is well advised to realize his limit and not transgress it. If it is scientifically certain that life cannot be restored, then it is futile to diligently keep on the vegetative state of the patient" (Islamic Organization of Medical Science: Islamic Code of Medical Ethics 2014). It is important to note that the IOMS statement differentiates the notion of a (full) "life" from vegetative states. IMANA also states that it is ethically permissible to withdraw life support in the case of PVS (Islamic medical ethics: The IMANA perspective 2005, 36). While the European Council for Fatwa & Research (ECFR), a Dublin, Ireland-based council of jurists and scholars headed by Shaykh Yusuf al-Qaradawi, does not refer to PVS explicitly, it permits the withdrawal of life support when there is brain damage that renders a patient unable to "conceive, feel or be sensitive to anything" (ECFR position 2011).

Further evidence of a *mukallaf* state implicitly influencing Muslim medical care at the end of life is found in Saudi Arabia. In Saudi Arabia, hospitals permit withholding of cardiopulmonary resuscitation (CPR) for patients who are likely to fall into a vegetative states; CPR is advocated only for patients who would have "an acceptable functioning integrated existence, not biological vegetative existence" (Takrouri and Halwani 2007).

FINAL REMARKS

Our analysis focuses on providing a theologically rooted Islamic bioethical framework to guide treatment near the end of life. Based on the Islamic ethical/legal positions obligating Muslim patients to seek life saving treatment, we believe that Muslim physicians have a corresponding obligation to provide such life saving treatments. Medieval notions of life saving, however, no longer suffice as end goals for clinical treatment because contemporary medicine has the ability to maintain physiological markers of life without also maintaining cognitive functioning. Therefore, we posit that the goal of medical treatment near the end of life be tied to a theologically based conception of quality of life. Accordingly, maximal quality of life corresponds to a clinical state that allows for the potential of performing works that can be rewarded in the hereafter. This clinical notion corresponds to the theological status of *mukallaf* and equates to an individual being accountable to God. Setting the restoration of the potential for *mukallaf* status as the end goal for medical treatment for patients who were potentially *mukallaf* prior to illness or injury, Muslim physicians are not Islamically obligated to initiate or maintain clinical treatment when a patient is not expected to recover his *mukallaf* status through the application of medical therapy. While the element of sin is removed from Muslim physicians who embark on foregoing medical treatment, there may be other reasons to continue clinical therapy and doing so may be permissible.

Our framework presents an entry point into Islamic bioethics considerations near the end of life. As such, we restrict our discussion to the scenario where a patient has suffered from an illness or injury that has led to a change in *mukallaf* status (or potential *mukallaf* status) to a non-*mukallaf* status. This clinical circumstance is a prevalent one and useful in end-of-life care goal-setting discussions. Some may argue that the efficacy of our analysis, and that of our proposed construct, is limited because it does not attend to goals of care for individuals with diminished mental capacities, non-*mukallaf* individuals. We suggest that the utility of any ethical framework should be measured by how well it attends the most common cases, since contingencies and extenuating circumstances at the extremes often necessitate adaptations of ethical theory. Our analysis is an initial sketch that attempts to cover the largest category of patients, and we submit that refinement in theory and corresponding framework is likely to occur in response to interlocutor critique and subsequent deliberation.

Lastly, some may argue that societal considerations should be more prominent in our analysis. Thus, the potential benefit a non-*mukallaf* individual offers in terms of comfort to others, or in the ability of significant others to perform good deeds by caring for the non-*mukallaf* individual, should more heavily factor into our quality-of-life construct. In other words, a patient who is in a non-*mukallaf* state may merit continuation of clinical care because she may benefit others. We are greatly concerned with such an argument as it has the potential to instrumentalize another individual's life. In other words, an ethical theory and framework that considers it normatively permissible (as opposed to a contingently or exceptionally permissible) to initiate or maintain clinical treatment on a person for the benefit of others and not on account of benefit to themselves tramples upon the intrinsic dignity of humans by allowing them to be a means to an end.

Multidisciplinary discussions involving physicians, social scientists, and Islamic authorities are vital to refining our Islamic bioethics framework and to mapping out answers to the complex ethical challenges faced by patients, families, and physicians in end-of-life care. We further suggest that such discussions be carried out, at least in part, in partnership with secular as well as other religious bioethicists, so Muslims and non-Muslims can learn from one another and sharpen their analyses, and so that the needs of a plural and diverse society are better met. ■

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