

End-of-Life in Extracorporeal Membrane Oxygenation (ECMO) Patients from an Islamic Perspective

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Abstract

Examining end-of-life care considerations within an Islamic context, the discussion delves into the intricate nuances surrounding ECMO patients. Drawing from Quranic teachings and Hadith principles, it underscores the sanctity of life and emphasizes compassionate decision-making. Advocating for integrating religious perspectives in healthcare highlights the importance of open dialogues, consultation with religious authorities, and respect for individual values. Islamic beliefs on life, death, and destiny shape the discourse on end-of-life care, focusing on dignity and quality of life preservation. Proposing a compassionate approach to ECMO discontinuation, the narrative emphasizes early consultations, transparent communication, shared decision-making, and advanced care planning for a dignified end-of-life journey.

Keywords: ECMO, End-of-life, Islam, Ethics, Fatwa, Religious.

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I. INTRODUCTION

In Islamic doctrine, the value of life is notably esteemed, and the considerations surrounding end-of-life care are navigated with considerable diligence and thoughtfulness. The Quran highlights the significance of life, articulating, "And do not kill the soul which Allah has forbidden, except by right" (Quran 17:33). This verse accentuates the necessity of safeguarding life except for circumstances regarded as unavoidable. Correspondingly, the Hadith extends the understanding of situations related to end-of-life, encouraging adherents to pursue medical intervention while simultaneously recognizing the confines of the existence of mortality. Various scholars have promulgated fatwas or religious edicts pertinent to end-of-life treatment concerning individuals reliant on Extracorporeal Membrane Oxygenation (ECMO), which is used when conventional methods for restoring cardiac or respiratory functions are not successful: these scholars indicate that the cessation of life support should be considered when medical futility is asserted. Guidelines for navigating end-of-life determinations for patients on ECMO involve fostering transparent dialog with medical practitioners, conferring with Islamic authorities, and honoring the preferences of the patient alongside their familial unit.

A. Background of Extracorporeal Membrane Oxygenation (ECMO)

ECMO has emerged as a crucial apparatus within critical care medicine, serving as a critical support mechanism for individuals experiencing severe cardiac or respiratory failure. The origin of ECMO traces back to the 1950s, when early innovators such as Gibbon and Kolobow laid the foundation for its emergence. Throughout recent decades, technological advancements and evolving medical knowledge have markedly improved the prognoses of patients who receive ECMO support. Nevertheless, even considering its life-preserving capabilities, the application of ECMO prompts intricate ethical and religious discussions, particularly about end-of-life scenarios. From the viewpoint of Islam, determinations surrounding the cessation or maintenance of ECMO treatment ought to be directed by tenets of compassion and reverence for life. Islamic scholars have emphasized the necessity of safeguarding life while also considering patients' welfare and overall quality of life [1]. Given these doctrinal insights, it is advocated that healthcare providers and the families of patients undergoing ECMO partake in open and sincere dialogues, seek counsel from religious leaders, and confront end-of-life deliberations with a blend of sensitivity and compassion.

B. Importance of Considering Religious Perspectives in End-of-Life Care

The importance of incorporating religious viewpoints is substantially notable in the discourse surrounding care provided at life's end. As indicated by Alias *et al.*, (2020), patient autonomy and acknowledgment of individual values are foundational elements within medical practice, specifically with respect to end-of-life determinations when patients might lack capacity [2]. Advance medical directives serve as tools to preserve a patient's autonomy even during incapacity. This is in harmony with Islamic injunctions that stress the importance of personal choice and maintaining dignity. A research investigation examining the stances of American Muslim physicians regarding end-of-life care revealed, as noted in Duivenbode *et al.*, (2019) that religious commitment markedly shapes perspectives on treatment options [3].

Furthermore, Sharma *et al.*, (2013) elucidated that Hindu beliefs regarding end-of-life care accentuate the necessity of familial participation and spiritual rituals for a serene transition from life to death [4]. This highlights the imperative to weave religious viewpoints into discussions about end-of-life care, which may include referencing Hindu sacred texts when considering such matters. In navigating end-of-life care for ECMO patients within various religious settings, honoring religious convictions, engaging families in decision-making, and consulting with religious authorities to ensure that determinations are congruent with religious teachings become essential.

C. Overview of Islamic Beliefs and Principles Regarding End of Life

Islamic convictions and tenets pertinent to the concluding phases of life offer direction for individuals confronted with pressing decisions within healthcare environments. According to Islamic doctrine, life holds a sacred status, and the cessation of life via euthanasia or physician-assisted suicide is unequivocally forbidden. The Quran highlights that human existence is a gift from Allah, with the prerogative to give or revoke life being solely His domain (Quran 67:2). Islamic scholars have addressed end-of-life care issues, recognizing the importance of balancing life preservation with quality of life considerations. While aggressive treatment is often requested by Muslim families [5], Islamic law permits withdrawing futile treatment from terminally ill patients [5, 6]. Scholars emphasize that life-prolonging measures should be sensible, and patients can request to discontinue such procedures [6]. However, patient autonomy is not the sole basis for decisions; Islamic ethical principles should guide end-of-life care choices [6]. There is ongoing debate about brain death criteria among Islamic scholars, with some accepting only cardiopulmonary criteria [5]. Understanding Islamic perspectives on end-of-life care is crucial for healthcare providers, as Muslims comprise a significant portion of the global population [7]. Bridging cultural gaps can

improve palliative and hospice care for Muslim patients, recognizing shared human experiences in death and dying [8].

D. Thesis Statement

In deliberating the conclusion of life from an Islamic viewpoint concerning ECMO patients, the directives that are encapsulated within the Quran and the Hadith warrant consideration. The Quran articulates, "To Allah we belong and to Him we shall return" (Quran 2:156), underscoring the fundamental belief in an eventual return to the Creator. Furthermore, the Hadith accentuates the necessity of upholding the sanctity of life and advocates for a judicious and compassionate approach toward decisions made at the end of life. Various scholars have formulated methods for delineating the ethical dimensions of end-of-life care, placing a premium on preserving life while concurrently acknowledging the limitations inherent in medical interventions. A framework for compassionate ECMO discontinuation (CED) has been proposed, emphasizing family meetings, symptom management, and bereavement support [9]. Despite the ethical complexities surrounding pediatric ECMO, there is a lack of practical guides for communication and decision-making [10]. A palliative care approach can provide tools to help engage the care team and family in difficult decisions regarding ECMO discontinuation [11]. Key elements in providing compassionate end-of-life care for patients on mechanical circulatory support include early consultation with palliative care teams, frequent and honest communication with families, shared decision-making, and advanced care planning [12]. These approaches aim to ensure a respectful and dignified death experience for patients and their families while acknowledging the limitations of medical interventions.

II. Islamic Perspective on Life and Death

Moreover, teachings within Islam underscore the importance of acknowledging death as an intrinsic aspect of existence. The Quran articulates, "Every soul will taste death, and you will only be given your full compensation on the Day of Resurrection" (Quran 3:185). This verses the certainty of mortality and the concept of an afterlife wherein individuals are accountable for their deeds. Similarly, the Hadith attributed to the Prophet Muhammad underscores the fleeting essence of this temporal world juxtaposed with the eternal reality of the hereafter. According to a fatwa from Islamic scholars, it is deemed acceptable to withdraw life support measures when prospects of recovery are nonexistent, as the extension of life under such conditions might be regarded as merely postponing the unavoidable conclusion [13]. Healthcare practitioners should foster transparent dialogs with patients' families, involving them in the choices made while considering their religious principles and values [14]. Furthermore, the Islamic doctrine surrounding the acceptance of destiny significantly influences how Muslims navigate issues of existence and mortality.

Illness and death are perceived by Muslims as tests from Allah, with the belief that such adversities are presented to facilitate spiritual maturation and, ultimately, the acceptance of Allah's decree [15].

A. Sanctity of Life in Islam

In the belief system of Islam, the holiness of existence finds substantial grounding within both the Quran and Hadith, thereby underlining the intrinsic worthiness and significance assigned to human life. As illustrated in the Quranic text, "Whoever kills a soul unless for a soul or corruption [done] in the land - it is as if he had slain mankind entirely. In addition, whoever saves one - it is as if he had saved mankind entirely" (Quran 5:32). This particular passage highlights the fundamental tenet of preserving life whenever feasible, resonating with the characterized sanctity of life in Islamic doctrine. Scholarly authorities within Islam have articulated fatwas that provide direction regarding end-of-life considerations, emphasizing the sustenance of life and factoring in the qualitative dimensions of life [16]. In the context of end-of-life treatment, specifically for patients undergoing ECMO, it is imperative to acknowledge these ethical frameworks and to consult with religious figures to ascertain that the choices made conform with Islamic principles.

B. The Concept of Death in Islamic Teachings

Islamic doctrines pertinent to the notion of death underscore the temporariness of earthly existence and the necessity of preparing for the afterlife. As articulated in the Quran, "Every soul will taste death" (Quran 3:185). This scriptural assertion underscores the certitude of mortality, urging adherents to prioritize their spiritual wellness. Within Islamic doctrines, death is perceived as a transition to the afterlife wherein individuals face accountability for their earthly deeds. Additionally, Hadith provides insights about how to confront death with steadfastness and belief, as Prophet Muhammad (peace upon him) articulated: "The believer's soul is a bird hanging on the trees of Paradise until Allah returns it to its body on the Day of Resurrection" [1]. Given these precepts, healthcare providers should extend spiritual support and contemplate ethical implications while attending to ECMO patients as they approach the end of life.

C. Beliefs About the Soul and Afterlife

Within the framework of Islamic doctrine, the notion of the soul is regarded as eternal and unending, making a transition to the realm beyond this life once death ensues. Verses from the Quran, exemplified by "And they ask you about the soul. Say: The soul is one of the commands of my Lord, and you are not given aught of knowledge but a little" (Quran 17:85), articulate this conceptualization of the soul. The teachings rooted in Islam underscore the necessity of readying oneself for the hereafter, which is achieved through righteous actions and adherence to the tenets of faith. Moreover, the Hadith offers insights into the trajectory of the soul

postmortem, emphasizing the principles of accountability and divine judgment in the afterlife context. In alignment with a fatwa articulated by Islamic scholars, considerations surrounding end-of-life choices for patients on ECMO should seek to uphold the sanctity of life while also considering the quality of the patient's existence and the likelihood of recuperation. It is advisable to engage family members in conjunction with healthcare practitioners in dialogs and determinations about the most suitable course of action, ensuring that these considerations resonate with Islamic values [17].

D. Islamic Views on Medical Interventions at the End of Life

In deliberating Islamic perspectives on medical interventions at the terminus of life, one must recognize the importance of maintaining the sanctity of existence while assessing the quality of existence for the individual. Islamic doctrines accentuate the preservation of life alongside the criticality of mitigating suffering. The Quran asserts that "And whoever saves one life, it is as if he had saved all of humanity" (5:32). Moreover, Hadith underscores the necessity of extending comfort and alleviation to those enduring distress [1]. Islamic scholars have promulgated fatwas that delineate guidance for Muslims regarding end-of-life care, spotlighting the principle of life preservation within the confines of Sharia [5]. For patients receiving ECMO, incorporating a multidisciplinary collective—including healthcare professionals, ethicists, scholars of religion, and familial representatives—becomes imperative for rendering decisions that are consonant with Islamic precepts and that accentuate patient welfare.

E. The Role of Faith and Acceptance in Facing Death

When examining how faith and acceptance impact confrontation with death, it becomes apparent that Islamic viewpoints provide significant insight into the spiritual aspects of the end-of-life experience. As indicated by Oakley (2022), hope and acceptance are woven intricately, with theological and moral understandings embedded deeply within Islamic theology and ethics [18]. The importance of *sabr* (patience) during difficult times, as underscored in both the Quran and Hadith, illustrates life as a test that includes various trials and hardships. Furthermore, the idea of *taqwah*, which refers to faith in God, allows for a simultaneous presence of hope for a longer life while also accepting the certainty of approaching death. This delicate equilibrium is essential for Muslim patients and their families as they deal with the intricacies involved in end-of-life care. The research outlined in Suleman (2022) further clarifies the hurdles and negotiations that arise when various values and moral frameworks converge, particularly in healthcare interactions [19]. From the Islamic viewpoint, the directives offered by fatwas as well as guidance from the Quran and Hadith provide crucial insights into how to approach the end-of-life scenario for ECMO patients, stressing the need for faith, hope, acceptance, and careful decision-making to

direct both patients and healthcare practitioners toward a meaningful and spiritually consistent end-of-life experience.

III. End-of-Life Decision-Making in Islamic Bioethics

In the framework of Islamic bioethics, decision-making processes concerning the end of life carry substantial importance. The guiding principles for such determinations are entrenched in the Quran and Hadith, which underscore the sacredness of life alongside the necessity for its preservation. Islamic bioethics scholars frequently consult these religious texts to extract directions concerning medical interventions, particularly those relevant to end-of-life situations. A fatwa from distinguished Islamic scholars suggests that withholding or ceasing life-sustaining therapies, including ECMO, could be acceptable under specific conditions [13]. The ethical structure inherent in Islamic bioethics fosters a comprehensive approach that considers patients' physical, emotional, and spiritual welfare. Hence, when contemplating end-of-life choices for patients on ECMO, it becomes crucial to engage with Islamic scholars, healthcare professionals, and family members to effectively navigate the intricate intersection of medical ethics and religious doctrines [1].

A. Principles of Autonomy and Beneficence in Islamic Ethics

When one contemplates the foundational tenets of autonomy and beneficence as they pertain to Islamic ethics within the domain of end-of-life treatment for ECMO patients, it becomes imperative to acknowledge the importance of maintaining human dignity alongside honoring the individual's autonomy in the decision-making process. The Quran delineates this idea succinctly in the verse which states, "And no bearer of burdens will bear the burden of another," (Quran 35:18) thereby underscoring the notion of personal accountability in one's choices. Furthermore, Hadith accentuates the principle of beneficence, asserting that "Whoever relieves a believer's distress, Allah will relieve his distress on the Day of Resurrection" [1]. This highlights the obligation to ease suffering. In light of these ethical doctrines, it becomes essential for healthcare practitioners to partake in transparent and candid dialogs with patients and their families, making certain that the choices regarding treatment resonate with Islamic values and beliefs. By infusing these ethical frameworks into the end-of-life care paradigms for ECMO patients, healthcare providers can sustain the sanctity of life while honoring individual autonomy and fostering the principle of beneficence.

B. Consultation and Consent in Medical Decision-Making

In the discourse on consultation and consent within the realm of medical decision-making pertinent to end-of-life care for patients on ECMO, especially from an Islamic viewpoint, it becomes imperative to underscore the role and engagement of substitute

decision-makers (SDMs) within the framework of advance care planning (ACP). Notably, studies suggest that using decision aids, exemplified by the Plan Well Guide, can enhance the participation of SDMs in ACPs, which in turn fosters a more informed and collaborative milieu for decision-making processes [20]. Additionally, the incorporation of electronic quality of life and practice support systems (QPSSs) within palliative care environments has yielded favorable outcomes, promoting improved communication, fortifying therapeutic relationships, and facilitating the cocreation of insights into the quality of life and care experiences of healthcare providers, patients, and their familial units [21]. By aligning such findings with Islamic doctrines that underscore the importance of consultation (shura) alongside the concept of informed consent, medical professionals can adeptly navigate the ethically delicate landscape of end-of-life decisions, drawing upon both empirical research findings and religious guidance to ensure care that is both respectful and holistic for ECMO patients as they approach the latter stages of their lives.

C. The Application of Islamic Jurisprudence (Fiqh) in End-of-Life Care

In the framework of end-of-life care viewed through an Islamic lens, implementing Islamic jurisprudence (Fiqh) is pivotal in directing the pathways of decision-making processes. On the basis of interpretations from Islamic scholarly resources, including the Quran and the traditions attributed to Prophet Muhammad, the preferences and consent of patients are deemed to be of substantial importance in medical procedures, even within the context of end-of-life situations. Malek *et al.*, (2021) underscored that Advance Medical Directives (AMDs) may serve to uphold the wishes of patients contingent upon certain stipulations being satisfied, such as confirming the cognitive ability of patients at the time of decision-making [22]. Furthermore, the principle of necessity allowing for legal exceptions, as elaborated upon by Lozano Rodriguez [23], can provide insight into contexts where potent analgesics are administered to relieve suffering, notwithstanding possible ethical dilemmas. Through the integration of Islamic principles and ethical considerations, healthcare practitioners can maneuver through intricate end-of-life care scenarios for ECMO patients, thereby striving for an equilibrium between honoring religious tenets and delivering empathetic care.

D. Considerations for Withdrawing or Withholding ECMO Support

In making nuanced choices regarding the withdrawal or withholding of ECMO support for patients, it becomes essential to pay attention to the ethical ramifications and cultural sensitivities that are inherently involved. In regard to decisions about end-of-life matters, they must be in accord with the religious convictions and value systems of the patients, which is particularly salient in instances concerning Muslim individuals. The perspective derived from Islamic

doctrines regarding end-of-life care places a significant emphasis on the sanctity associated with life, the critical need for sustaining hope, and the endeavor to find harmony between rigorous medical interventions and permitting a serene passing. As per Islamic teachings, the contemplation of withdrawing life-sustaining measures is ostensibly acceptable solely when the patient is in a condition characterized by irreversible distress and when no possibility for recovery remains [13]. Therefore, engaging Islamic scholars and soliciting guidance from religious authorities in the face of such determinations is of utmost importance to ensure that these decisions abide by Islamic precepts and ethical frameworks. Moreover, family members must take an active role in decision-making proceedings, as their contributions and support hold considerable significance during this trying period [1].

E. The Involvement of Family and Religious Scholars in Decision-Making

In examining the role of familial and religious scholars in the decision-making process related to ECMO patients nearing the end of life, it is essential to reflect upon the Islamic principles concerning the sanctity of life and the significance of conferring with relatives in health-related decisions. The Quran underlines the importance of human existence, articulating that "And whoever saves one life, it is as if he had saved mankind entirely" (Surah Al-Maidah 5:32). In addition, Hadiths and fatwas provide direction for end-of-life care, advocating for a collective decision-making approach among families and for pursuing guidance from knowledgeable individuals [1]. Within this framework, the contributions of religious scholars can provide crucial insights into the ethical dimensions tied to the cessation of life support and to the provision of palliative care. By integrating the perspectives of both family members and religious authorities into decision-making processes, one can adopt a more comprehensive and culturally attuned strategy toward end-of-life care for ECMO patients within Islamic populations.

IV. Islamic Perspectives on Withdrawing Life Support in ECMO Patients

In delving into Islamic viewpoints regarding the cessation of life support for ECMO patients, it becomes essential to acknowledge the nuanced interplay between medical practices and Islamic doctrines. As underscored in the analytical framework referenced by Smith & Loshak (2021), many stakeholders—including patients, their relatives, and healthcare practitioners—confront various ethical dilemmas when deliberating on ECMO interventions, particularly during the transition to measures associated with end-of-life care [24]. According to Islamic tenets, the inviolability of life holds utmost significance, as articulated in the Quran: "And do not kill the soul which Allah has forbidden" (6:151). The discourse surrounding euthanasia, elaborated upon in U Tun Aung (2018), elicits apprehensions within the confines of Islamic ethical systems since the

determinations of life and death are in the purview of Allah [25]. The issuance of fatwas and the insights of Islamic scholars can serve as a resource when navigating the intricacies of end-of-life determinations within the ECMO context, accentuating the necessity of preserving dignity, compassion, and fidelity to Islamic doctrines. Advisories may entail integrating spiritual support, consultations with family members, and the pursuit of a consensus among healthcare personnel, patients, and families to foster a comprehensive and ethically grounded methodology concerning end-of-life management for patients reliant on ECMO support.

A. Fatwas and Scholarly Opinions on End-of-Life Care

One methodology regarding end-of-life care in the context of Islamic principles requires consultation with religious scholars alongside fatwas about the subject. Scholarly viewpoints frequently underscore the revered nature of life and the necessity of mitigating pain for those who are terminally ill. This is congruent with teachings found in the Quran, which states, "Do not kill yourselves" (Quran 4:29), as does Hadith, which accentuates the criticality of preserving hope and refraining from hastening death. Scholars provide insights pertinent to navigating end-of-life determinations, particularly for patients undergoing ECMO. Fatwas may delineate specific circumstances under which the cessation of treatment is considered acceptable as well as methods to ensure patients' comfort during their final moments. By integrating these religious ideologies into the decision-making framework, healthcare practitioners can engage with end-of-life care for ECMO patients in a manner that embodies compassion and respect for life while considering the quality of life and dignity of the patient [26].

B. Quranic Verses and Hadiths Relevant to Withdrawing Life Support

In the realm of Islamic teachings, the Quran, along with the Hadith, provides essential directions concerning intricate ethical dilemmas, particularly concerning the cessation of life support in critically ill patients. The verses of the Quran accentuate the sacredness of life and the necessity of its preservation wherever feasible. For example, Surah Al-Maidah (5:32) articulates, "Whoever saves one life, it is as if he has saved the whole of mankind." This verse highlights life's significance and bolsters endeavors aimed at its sustenance through medical means. Nevertheless, Islamic scholars have also deliberated upon instances in which the persistence of life support could inflict excessive suffering and yield no substantial recovery. In scenarios of this nature, the Hadith delivers insight, wherein the Prophet Muhammad (peace be upon him) proclaimed, "There should be neither harming nor reciprocating harm." This foundational principle serves as a navigational aid in making determinations regarding the withdrawal of life support in situations where it merely extends suffering devoid of any realistic prospect

of recovery. Islamic jurists have promulgated fatwas that sanction the withdrawal of life support under specific conditions to mitigate unwarranted suffering experienced by patients. When confronted with the challenging choice of disconnecting life support for a patient on ECMO, it is imperative that healthcare practitioners and family members engage in consultations with erudite religious authorities to obtain guidance in managing this delicate matter while adhering to Islamic principles of empathy and mercy [27].

C. Balancing Medical Futility and Patient Dignity in Islamic Bioethics

In addressing the nuanced interplay between medical futility and the need to preserve patient dignity within Islamic bioethics, it becomes essential to reference both the Quran and Hadith. These particular sources illuminate the significance of life's sanctity alongside the imperative of safeguarding human dignity, regardless of the circumstances surrounding medical intervention. The Quran succinctly states, "And do not kill the soul which Allah has forbidden, except by right" (6:151), a directive that highlights the need for meticulous evaluation surrounding the viability of medical treatments, particularly in scenarios synonymous with futility. Consequently, following these doctrines, Islamic bioethicists have formulated fatwas that delineate ethical frameworks pertinent to end-of-life care, including avenues for employing technologies such as ECMO. It is suggested that healthcare providers and families engage in these deliberations with compassion, striving for consensus while prioritizing patient welfare in harmony with Islamic doctrines. By adhering to the tenets of mercy, dignity, and respect for life, it is possible to establish a balanced approach to the intricate challenges associated with end-of-life care for patients needing ECMO, all while functioning within an Islamic ethical framework [1].

D. Recommendations for Ethical Decision-Making in ECMO Patients

In the ongoing conversation regarding ethical aspects of end-of-life care for patients undergoing ECMO, engaging with various viewpoints that can guide decision-making processes is critical. As noted by Khan (2012), scholars from various religious backgrounds view the application of brain death as a significant criterion, which aligns with the Islamic doctrine that emphasizes the preservation of life [28]. This perspective provides further support for the core values of empathy and esteem within traditional Islamic principles, as illustrated by numerous excerpts from the Quran and Hadith. Furthermore, the contributions made by ethicists, as analyzed in Pellegrino (1998), focus on the inherent obligation of healthcare providers to address complicated ethical issues with honesty and openness, especially as the healthcare field continues to change [29]. Therefore, a thorough method for ethical decision-making regarding ECMO patients must amalgamate religious beliefs,

professional standards, and cultural factors to secure a comprehensive and ethically responsible path forward.

E. Addressing the Spiritual and Emotional Needs of Patients and Families

In traversing the intricate landscape surrounding the fulfillment of spiritual and emotional requirements for patients and their kin, those in healthcare positions must consider the substantial influence exerted by religious convictions and practices. According to Islamic doctrine, the Quran underscores the necessity of compassion and mercy throughout diverse life avenues, notably during periods marked by illness and death. The Prophet Muhammad (peace upon him) also accentuated the critical nature of sustaining hope and faith amidst hardships. In the context of administering care to end-of-life ECMO patients through an Islamic lens, delivering comprehensive backing that embraces spiritual reassurance and counseling becomes crucial. As articulated in a fatwa by esteemed scholars, it is incumbent on healthcare practitioners to interact with patients and their families in a manner characterized by compassion and empathy, thereby ensuring the fulfillment of emotional and spiritual requirements during such a formidable phase [30]. By intertwining care with Islamic doctrines of compassion and mercy, healthcare providers can extend solace and support to individuals and families confronted with end-of-life determinations.

V. CONCLUSION

In the undertaking of examining considerations about end-of-life for patients undergoing ECMO from a perspective aligned with Islamic teachings, it becomes quite apparent that ethical and religious directives play a pivotal role. The Quran underscores the inviolability of life while promoting principles such as mercy, compassion, and the necessity of preserving existence whenever it is ascertainably feasible. Similarly, the Hadith delineates the importance of safeguarding the dignity of individuals while facilitating the alleviation of their distress. Moreover, a fatwa that may be procured from Islamic scholars can furnish beneficial insights concerning the ethical ramifications accompanying the withdrawal of ECMO support in specific scenarios. Ultimately, in confronting the complex decisions that arise about end-of-life care for patients on ECMO support, it is paramount that medical practitioners, patients themselves, and their families actively seek guidance from Islamic doctrines, engage with religious authorities, and weigh the best interests of individuals, all while adhering to the principles of compassion and reverence for life. By weaving these religious teachings and elucidating their practical application, a more ethically robust methodology for managing end-of-life care within the context of ECMO patients can be realized [1].

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Abbreviation List

Extracorporeal Membrane Oxygenation (ECMO); Artificial Intelligence (AI); Compassionate ECMO Discontinuation (CED); Substitute Decision-Makers (SDMs); Advance Care Planning (ACP); Quality of life and Practice Support Systems (QPSSs); Advance Medical Directives (AMDs).

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