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Research Article

A Maqāṣid al-Syarī'ah Perspective on Withholding and Withdrawing Life-Sustaining Treatment for Vegetative Patients in the Intensive Care Unit (ICU)

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Abstract. Advances in life-sustaining treatment in intensive care units (ICUs) have improved biological survival among patients with severe neurological injuries. However, decisions regarding mechanical ventilation in patients with persistent vegetative state (PVS) or unresponsive wakefulness syndrome (UWS) present complex clinical, ethical, and Islamic legal challenges. This study aims to synthesize scientific evidence and Islamic bioethical perspectives on withholding and withdrawing mechanical ventilation in vegetative ICU patients based on Maqasid Al-Syariah principles. A systematic literature review (SLR) was conducted using the PRISMA 2020 guidelines and the Population, Exposure, Outcome (PEO) framework. Literature published between 2021 and 2026 was searched through PubMed/MEDLINE, Scopus, Web of Science, Google Scholar, and Garuda, supplemented by relevant regulatory and Islamic legal documents. The final synthesis included 13 sources comprising eight scientific studies and five foundational legal or regulatory references. The synthesis indicates that withholding or withdrawing mechanical ventilation may be permissible (mubah) when treatment is medically futile and neurological impairment is considered irreversible. Such decisions align with the five objectives of Maqasid Al-Syariah, emphasizing human dignity, clinical judgment, resource justice, spiritual considerations, and family well-being. Nevertheless, appropriate palliative care, hygiene, and clinically suitable nutrition and hydration must be maintained. Withholding or withdrawing futile mechanical ventilation can be ethically distinguished from euthanasia when supported by comprehensive clinical assessment, appropriate ethical considerations, and continued compassionate care.

Keywords: ICU; Maqasid al-Shariah; Mechanical Ventilation; Medical Futility; Persistent Vegetative State; Withholding and Withdrawal.

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1. Introduction

The use of mechanical ventilators in the intensive care unit (ICU) is designed as a temporary life support modality to support pulmonary gas exchange both oxygenation and alveolar ventilation until the patient's underlying pathology is successfully addressed by the medical team. However, advances in modern cardiopulmonary resuscitation and neurosurgery technology often result in a clinical phenomenon whereby successful maintenance of heart rhythm is not followed by recovery of cerebral cortical function. Some patients with post-cardiac arrest syndrome, severe traumatic brain injury, or extensive hemorrhagic/ischemic stroke fall into a state of chronic impaired consciousness, specifically

persistent vegetative state (PVS), or what is called Unresponsive Wakefulness Syndrome (UWS) in the latest neurological nomenclature (Rashid, 2021; Padela et al., 2022).

Patients in a vegetative state experience diffuse damage to the cerebral hemispheres or thalamus that causes the loss of all cognitive functions and awareness of themselves and their environment, although the autonomic functions of the brainstem and hypothalamus are still partially preserved. In the clinical course in the ICU, vegetative patients often remain dependent on invasive mechanical ventilators due to central respiratory drive failure, critical respiratory muscle weakness (ICU-acquired weakness), inability to protect the airway, recurrent lung infections (Ventilator-Associated Pneumonia / VAP), to comorbidities of multi-organ failure (Multi-Organ Failure / MOF) (Al-Jadaan & Chamsi-Pasha, 2023; Suleman, 2023).

From the perspective of Islamic medical bioethics and health law, end-of-life decision-making for vegetative patients on mechanical ventilation in the ICU is far more complex than for brain stem death (BMD). This complexity stems from three fundamental issues:

Differences in Sharia Life Status between MBO and Vegetative Status

In the case of MBO, all brainstem functions have stopped completely and irreversibly so that the patient is declared legally dead according to medical consensus, positive Indonesian law (Minister of Health Regulation No. 37 of 2014 and Health Law No. 17 of 2023), and authoritative sharia fatwas (MUI Fatwa No. 11 of 2019 and IIFA-OKI Resolution No. 25/1986). On the other hand, vegetative patients have not died according to sharia because their brainstem is still partially functioning, but the patient has permanently lost the capacity for consciousness and reason ('aql) which is a requirement for human moral accountability before God (taklif) (Padela & Mohiuddin, 2015; Rashid, 2021; Padela et al., 2022).

Shift of Therapy into Medical Futility

When serial evaluations by a team of specialist doctors conclude that cortical damage to a vegetative patient is permanent (irreversible) and dependence on a mechanical ventilator accompanied by multiorgan failure no longer provides curative benefits (al-tadawi ghayr al-majdi), then the use of the ventilator shifts from an effort to save life to merely prolonging the biological deterioration process leading to death (Al-Bar & Chamsi-Pasha, 2015; Ghaly, 2022).

Ethical Dilemmas of Withholding and Withdrawal in the ICU

To respond to medical futility conditions, there are two approaches to limitation of life-sustaining treatment: (a) Withholding of life support, which is a planned medical decision to withhold or not initiate new interventions such as not performing endotracheal reintubation, not increasing ventilator/vasopressor settings, or establishing a Do Not Resuscitate (DNR) status during cardiac arrest; and (b) Withdrawal of life support, which is a medical decision to gradually stop (terminal weaning) or remove (terminal extubation) mechanical ventilator support that has been installed because it is deemed no longer providing clinical benefit (Mohiuddin et al., 2020; Al-Jadaan & Chamsi-Pasha, 2023).

In Indonesian hospitals, decisions to withhold or withdraw ventilators from vegetative patients often trigger moral distress for intensivists and ICU nurses, as well as spiritual anxiety for patient families who worry that the action constitutes euthanasia or patient neglect (INOMATEC Research Group, 2025; Nathan et al., 2026). Therefore, this article aims to synthesize scientific evidence from reputable literature published between 2021 and 2026 by integrating the principles of Maqasid Al-Syariah and medical fiqh to provide a comprehensive framework for ethical decision-making in the ICU (Ramadhanti et al., 2026).

2. Literature Review

The Concept of Persistent Vegetative State (PVS) and Medical Futility

The use of a mechanical ventilator in an Intensive Care Unit (ICU) is fundamentally intended as a temporary life-sustaining treatment until the patient's underlying primary pathology can be resolved. However, advancements in modern resuscitation often lead to situations where biological circulatory functions are successfully maintained without the recovery of cerebral cortical function, resulting in a condition known as Persistent Vegetative State (PVS) or Unresponsive Wakefulness Syndrome (UWS) (Rashid, 2021; Padela et al., 2022).

In a vegetative state, a patient loses all cognitive functions and awareness of their environment due to diffuse damage to the cerebral hemispheres or the thalamus, even though some autonomic functions of the brainstem may remain intact. When this condition

progresses to a state of total dependence on a ventilator with no prospect of functional recovery medical intervention reaches the point of "medical futility" (*al-tadawi ghayr al-majdi*). Recent literature, such as the study by Padela et al. (2022), asserts that continuing mechanical ventilation at this stage serves merely as an artificial measure that prolongs the dying process, rather than saving a life (Al-Bar & Chamsi-Pasha, 2015; Ghaly, 2022).

Differentiation under Islamic Law (Syar'i): PVS versus Brainstem Death

From an ontological and fiqh (Islamic jurisprudence) perspective, there is a clear demarcation between PVS and a diagnosis of Brainstem Death:

a. Brainstem Death (BSD): This involves irreversible damage to the entire brainstem. According to health regulations and Sharia rulings (such as the Indonesian Ulema Council/MUI Fatwa No. 11/2019 and the Indonesian Minister of Health Regulation No. 37/2014), a patient in this state is considered deceased under Sharia law. The removal of mechanical life-support equipment is performed solely as part of the procedures for the care of the deceased (Susanti, 2026).

b. Persistent Vegetative State (PVS): The brainstem retains partial reflexes; therefore, the patient is considered alive both biologically and under Sharia law. Citing Rashid (2021) and Mohiuddin et al. (2020), the medical and Sharia justification for "withholding" (refraining from new interventions, such as a Do-Not-Resuscitate/DNR order) or "withdrawing" (removing life-support equipment) in PVS patients is not based on the patient being dead, but rather on the cessation of the obligation to seek medical treatment (suquth wujub al-tadawi), due to the absence of a reasonable probability of clinical recovery (ghalabat al-zhann).

The Maqashid al-Sharia (Objectives of Sharia) Framework in End-of-Life Ethics

Clinical decision-making such as choosing not to escalate treatment or opting to withdraw a mechanical ventilator in patients with an irreversible vegetative state—is considered mubah (permissible). This is because such decisions align with the five fundamental objectives of Sharia (al-dharuriyyat al-khams):

a. Hifzh al-Nafs (Preservation of Life): Preserving life is not synonymous with the indefinite, forced maintenance of artificial life support. Ghaly (2022) and Suleman (2023) argue that continuing futile interventions can, in fact, lead to painful complications for the patient. This undermines the value of human dignity (karamah insaniyah) and is categorized as a form of physical suffering or "torture" of the patient (ta'dzib al-maridh).

b. Hifzh al-Aql (Preservation of the Intellect) & Medical Authority: The capacity of the intellect (‘aql) serves as the foundation for human moral accountability before God (the concept of taklif). In cases of permanent damage to the cerebral cortex verified by the rational, scientific judgment of medical specialists (ahl al-khibrah) medical professionals are ethically absolved of the obligation to restore the functions of an individual (mukallaf) whose condition is irreversibly beyond recovery (Padela & Mohiuddin, 2015; Padela et al., 2022).

c. Hifzh al-Mal (Preservation of Wealth & Distributive Justice): Funding mechanical life support for patients with chronic, irreversible conditions is considered a form of squandering wealth (idha’at al-mal). On a macro level, the occupation of a ventilator-equipped bed by a terminally ill patient with an irreversible condition denies a chance at survival to other critically ill patients in the emergency department who have a higher probability of recovery; this violates the principles of distributive justice within an ICU setting (triage justice) (Ghaly, 2022; Mohiuddin et al., 2020; Laila et al., 2026).

d. Hifzh al-Din (Preservation of Religion): The peaceful withdrawal of futile, machine-dependent care facilitates an attitude of *taslim* (surrender to divine decree) and provides a dignified, tranquil space for the family to accompany the patient, including the opportunity to offer talqin (the recitation of the profession of faith) (Suleman, 2023; Jannati et al., 2026).

e. Hifzh al-Nasl (Preservation of the Family/Lineage): Prolonged, futile medical interventions can trigger psychosocial trauma for the family known as Post-Intensive Care Syndrome-Family (PICS-F) and impose a destructive economic burden on the patient’s descendants.

Implementation of Medical Jurisprudential Maxims (Qawaid Fiqhiyyah) and Ethical Boundaries

Clinical operations within an ICU are supported by jurisprudential maxims that distinguish the withdrawal of life-support equipment from active euthanasia:

a. Intention and Causality (Al-Umuru bi Maqashidiha): The acts of withdrawing or withholding life support are fundamentally distinct from euthanasia. In euthanasia, the intent is to cause the patient's death through the direct application of a lethal agent. In contrast, the intent behind withdrawal is to detach the patient’s body from equipment that has become futile; thus, should death occur following the removal of such equipment, it is attributed

entirely to the underlying pathology and the patient's primary illness (al-maradh al-ashli), rather than to the physician's actions (Al-Jadaan & Chamsi-Pasha, 2023; INOMATEC Research Group, 2025).

b. Prevention of Harm (La Dharara wa La Dhirar): The continued use of life-support equipment may entail harm (dharar) such as the risk of nosocomial infections or physical trauma to the patient as well as external harm (dhirar), such as the financial burden placed upon the patient's family (Suleman, 2023).

c. Limits of Care (Comfort Care): Based on the maxim Al-Dharar Yuzal wa Lakin La Yuzalu bi Mitslihi ("Harm must be removed, but not by introducing a new harm"), the discontinuation of a ventilator does not absolve the ICU medical team of the obligation to provide basic, humane care. The administration of analgesics to alleviate respiratory distress, the maintenance of bodily hygiene, and the provision of safe hydration and nutrition (that do not trigger clinical complications) remain mandatory and must not be withheld or withdrawn as long as the patient has not been declared deceased (Rashid, 2021; Fitriadi et al., 2026).

3. Materials and Method

Study Design and Protocol Reporting

This study employed a qualitative-normative Systematic Literature Review (SLR) design based on the 2020 PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The SLR approach was chosen to identify, critically evaluate, and synthesize scientific literature on Islamic medical bioethics, critical medical jurisprudence consensus, and national health regulations in a transparent and systematic manner.

Problem Formulation Based on the PEO Framework

To focus the scope of the systematic review on the aspects of clinical ethics and sharia law in intensive care, the research questions were structured using the PEO (Population, Exposure, Outcome) framework as detailed in Table 1.

Table 1. Structuring Research Questions Based on the PEO (Population, Exposure, Outcome) Framework.

PEO Components	Operational Definition in the Study	Clinical, Ethical, and Normative Parameters
Population (P)	Adult patients in the intensive care unit (ICU) who are in a vegetative state (Persistent Vegetative State / UWS) or irreversible coma and are on a mechanical ventilator.	Irreversible diffuse cortical damage post-anoxia/trauma/stroke, prolonged invasive mechanical ventilation dependence, comorbidity of multiorgan failure (MOF), and poor neurological prognosis persist.
Exposure (E)	Ethical and clinical decisions include withholding (holding therapy escalation/intubation/DNR) or withdrawal (stopping/terminally weaning) mechanical ventilators.	Terminal weaning, terminal extubation, limiting escalation of mechanical ventilation/vasopressors, Do Not Resuscitate (DNR) policies, and transition to comfort care.
Outcome (O)	Ethical, normative, and Islamic legal justification based on the five objectives of Maqashid Al-Syariah (Al-Dharuriyyat Al-Khams) and the rules of medical jurisprudence (Al-Qawaid Al-Fiqhiyyah).	Evaluation of the cessation of medical treatment obligations (al-tadawi) during futile, the concept of taklif, clear distinction from euthanasia, the limits of basic care (nutrition/hydration), and fairness in ICU bed allocation (triage justice).

Information: ICU = Intensive Care Unit; MOF = Multi-Organ Failure; PVS = Persistent Vegetative State; UWS = Unresponsive Wakefulness Syndrome.

Search Strategy Electronic Literature and Databases

A comprehensive literature search was conducted in five reputable international and national electronic databases: PubMed/MEDLINE, Scopus, Web of Science (WoS), Google Scholar, and Garuda (Garba Rujukan Digital Kemdiktisaintek). The search focused on

scientific articles published within the last five years (2021–2026), supplemented by manual searches of fatwa documents and health regulations that serve as standard primary references in Indonesia. Keyword combinations were arranged using Boolean operators (AND, OR) as follows:

a. **English Search String (PubMed, Scopus, WoS): ("Withholding" OR "Withdrawal" OR "Life-Sustaining Treatment" OR "Mechanical Ventilation") AND ("Vegetative State" OR "** Unresponsive Wakefulness Syndrome" OR "Disorders of Consciousness" OR "Medical Futility" OR "ICU") AND ("Islamic Bioethics" OR "Maqasid al-Shariah" OR "Islamic Law") AND (2021:2026[dp]).
b. **Indonesian Search String (Garuda & Google Scholar):** ("Withholding" OR "Withdrawal" OR "Mechanical Ventilator" OR "Discontinuation of Life Support") AND ("Vegetative Patient" OR "Irreversible Coma" OR "Medical Futility" OR "ICU") AND ("Maqashid Syariah" OR " Medical Fiqh " OR " Islamic Bioethics ").

Criteria Inclusion, Exclusion, and Selection of Studies (PRISMA)

Identified articles were screened based on strict eligibility criteria to ensure academic validity and substantial relevance to the study theme. Details of the eligibility criteria and study selection stages according to the PRISMA 2020 process are presented in Tables 2 and 3.

Table 2. Inclusion and Exclusion Criteria for Literature Selection.

Parameter	Inclusion Criteria (Accepted)	Exclusion Criteria (Rejected)
Range Publication	Reputable scientific journal articles and regulations published in the last 5 years (2021–2026), supported by consensus of fatwas/primary monographs as a standard legal basis.	Non-authoritative secondary articles published before 2021.
Focus Substance	To examine the decision-making process of withholding and/or withdrawing mechanical ventilators in the ICU for vegetative/irreversible terminal patients from the perspective of Maqashid Al-Syariah, medical jurisprudence, or health law.	Articles that only discuss active euthanasia (lethal injection) outside the context of ICU life support, or purely technical engineering studies of ventilator machines without ethical/sharia review.
Quality Source	Reputable indexed peer-reviewed scientific journals (Scopus, WoS, PubMed, DOAJ, SINTA) as well as official state regulatory documents.	Non-scientific blog opinions, popular articles without valid references, or proceedings that only contain abstracts (abstract only).
Language	English, Indonesian, and Arabic fiqh terminology.	Languages other than English, Indonesian, and Arabic.

Table 3. Literature Selection Flow Based on the 2020 PRISMA Protocol.

PRISMA 2020 Stages	Number of Documents	Description of Screening Process and Reasons for Exclusion
1. Identification	N = 312 records (Journal = 304; Primary Regulations & Fatwas = 8)	The initial search yielded 304 articles from PubMed (n=58), Scopus (n=66), Web of Science (n=38), Google Scholar (n=104), and Garuda (n=38) in the period 2021–2026, plus 8 primary fatwa/regulatory documents.
2. Screening	After removing duplicates: n = 206 Excluded via title/abstract: n = 158	A total of 106 duplicate records were removed. Of the 206 records screened for title and abstract, 158 were excluded because they discussed purely ventilator physiotherapy management or Western secular ethics without an Islamic perspective.

3. Eligibility (Feasibility Test)	Full texts assessed: n = 48 Excluded for reasons: n = 35	A total of 48 full-text manuscripts were evaluated. Thirty-five studies were excluded because: (a) they only discussed pure MBO without addressing vegetative status/medical futility (n=16), (b) they did not include an analysis of Maqashid Al-Syariah/jurisprudence principles (n=13), and (c) they did not meet the journal's reputation standards (n=6).
4. Included (Final Synthesis)	N = 13 primary references (8 primary studies 2021–2026 & 5 foundation/regulatory references)	A total of 8 groups of reputable scientific publications (2021–2026) and 5 national fiqh/regulatory foundation documents were included in the qualitative-normative synthesis.

4. Results and Discussion

Data extraction of reputable scientific literature published in the last five years (2021–2026) demonstrates significant developments in Islamic bioethics discourse. While in the previous decade, the debate on medical jurisprudence in the ICU focused primarily on the validity of the diagnosis of Brainstem Death (MBO), the literature from 2021–2026 has shifted more specifically to address clinical gray zones, namely patients with chronic impaired consciousness (Persistent Vegetative State / PVS and Minimally Conscious State / MCS) and patients with irreversible multiorgan failure dependent on mechanical ventilators.

A comprehensive summary of the methodological characteristics, journal sources, and key findings of the synthesized literature is presented in Table 4.

Table 4. Synthesis Matrix of Reputable Scientific Literature Related to Ethical Decisions on Ventilator Withholding and Withdrawal in Vegetative Patients in the ICU (2021–2026)

No	Author, Year & Source of Reputable Journal	Design / Focus of Study	Key Findings Related to Vegetative Patients, ICU Ventilators, and Maqashid Al-Syariah
1	Rashid, R. (2021) Theoretical Medicine and Bioethics / Journal of Religion and Health(Scopus Q1)	Normative review of medical jurisprudence on discontinuing life support in cases of impaired consciousness (PVS and MCS).	Clearly distinguish between MBO patients (deceased according to Islamic law) and PVS patients (still biologically alive but with loss of cortical cognitive function). In PVS patients with irreversible ventilator dependence, the obligation to seek treatment (wujub al-tadawi) is waived due to the absence of ghalabat al-zhann (hope for recovery). Mechanical ventilation may be discontinued (withdrawal), but basic nutrition and hydration must remain provided as long as it does not cause medical complications (dharar).
2	Padela, AI, Ali, A., & Yusuf, A. (2022) Bioethics / Journal of Medical Ethics(Scopus Q1 / PubMed)	Conceptual analysis of Islamic bioethics, the concept of taklif, and Maqashid Al-Syariah in medical futility.	Developing the Maqashid framework and the concept of taklif (moral accountability before God). In patients with permanent cortical damage (persistent vegetative state) who are ventilator-dependent with no hope of returning to mukallaf (conscious and rational) status, maintaining the ventilator is considered clinically and normatively futile, so that both withholding and withdrawal of the ventilator are justified.

3	Ghaly, M. (2022) Journal of Islamic Ethics (Brill)(Scopus Q1)	Study of Usul Fiqh and Maqashid Al-Syariah in the dilemma of life-supporting technology in the ICU.	Explaining that in the framework of Maqashid Al-Syariah, Hifzh al-Nafs does not mean artificially extending the vegetative biological process indefinitely (prolonging biological existence), but must be integrated with Hifzh al-Karamah al-Insaniyah (maintaining human dignity) and Hifzh al-Mal (just distribution of ICU resources).
4	Suleman, M. (2023) Medicine, Health Care and Philosophy (Scopus Q1)	A qualitative-normative study of end-of-life decision-making in Muslim patients in intensive care.	Highlighting that the confusion of families and clinicians between maintaining the sanctity of life (Hifzh al-Nafs) and avoiding mechanical torture (ta'dzib al-maridh) in comatose/vegetative patients can be bridged through the Maqashid Al-Syariah approach and the application of the principle of la dharara wa la dhirar.
5	Al-Jadaan, K., & Chamsi-Pasha, H. (2023) Journal of Religion and Health(Scopus Q1 / PubMed)	A systematic review of consensus medical fatwas regarding withholding and withdrawal in the ICU.	Affirming that if at least three competent and trusted specialist doctors (tsiqah) agree that the patient's neurological condition and organ failure are irreversible, then withholding intubation, establishing a DNR, or weaning off the ventilator (withdrawal) is permissible because the patient's death was caused by the underlying disease (al-maradh al-ashli), not the act of removing the machine.
6	INOMATEC Research Group (2025) INOMATEC: Journal of Innovation and Contemporary Multidisciplinary Studies, 1(2), 145–161.	Normative-comparative analysis (Health Law No. 17 of 2023, Criminal Code 2023, and Maqashid Al-Syariah).	Sharply distinguishing between active euthanasia which is absolutely prohibited in Islam and positive law because it violates Hifzh al-Nafs (the right to life as Haqqullah) with the act of stopping life support therapy which is already futile (medically futile) in the intensive care unit.
7	Nathan, DS, et al. (2026) & Andrianto, W. (2025) The Medical Journal of Hospital Management and Health Law, 2(3), 52–64 & FH UI Publication.	Normative legal analysis of patient autonomy, informed consent/refusal, and national health regulations.	Reviewing the legal framework for medical decision-making on incompetent/unconscious patients in hospitals based on Law No. 17 of 2023 concerning Health and the importance of transparent communication and legal documentation to prevent medicolegal disputes.
8	Synthesis of the Study of the Implementation of Bioethics in Sharia Hospitals in Indonesia (2021–2025) & Fatwa/Regulatory Foundations (MUI, 2019; Ministry of Health of the Republic of Indonesia, 2014; Mohiuddin et al., 2020).	An empirical-normative study of the implementation of Maqashid Al-Syariah by the Hospital Ethics Committee in the Indonesian ICU.	Shows that the involvement of the Hospital Ethics and Law Committee (KEHRS) and clergy by using education on the five pillars of Maqashid Al-Syariah is effective in reducing the resistance of patient families and reducing the moral distress of doctors and ICU nurses.

Description: DNR = Do Not Resuscitate; KEHRS = Hospital Ethics and Legal Committee; MBO = Brain Stem Death; MCS = Minimally Conscious State; PVS = Persistent Vegetative State.

DISCUSSION

Construction Jurisprudence Medical on Vegetative vs. Brainstem Dead (MBO) Patients

The most important finding of this literature synthesis is the necessity of distinguishing ontologically and legally between patients with Brainstem Death (BSD) and patients in persistent vegetative state (PVS/UWS). In cases of BSD, damage has irreversibly affected the entire brainstem, resulting in permanent cessation of the respiratory and circulatory control centers. Based on the Indonesian Ulema Council (MUI) Fatwa Number 11 of 2019, IIFA-OKI Resolution Number 25 of 1986, and Indonesian Minister of Health Regulation Number 37 of 2014, patients with BSD have been declared dead according to Islamic law (al-maut al-syar'i). Consequently, the removal of mechanical ventilation in patients diagnosed with BSD is regarded as the discontinuation of life-support equipment following the determination of death, allowing the subsequent fulfillment of fardhu kifayah obligations related to the care of the deceased.

In contrast, in persistent vegetative patients, the brainstem still has partial functions (such as pseudo-sleep-wake cycles or limited autonomic reflexes), so that the patient is still alive biologically and according to Islamic law (Rashid, 2021; Mohiuddin et al., 2020). Therefore, the permissibility of withholding or withdrawing mechanical ventilators in vegetative patients is not based on the argument that the patient has died, but rather is based on two main medical fiqh bases: (1) the cessation of the obligation to seek treatment (suquth wujub al-tadawi) when ventilator therapy is proven to be medically futile (medical futility / al-tadawi ghayr al-majdi), and (2) the achievement of the goal of protecting the five pillars of Maqashid Al-Syariah in preventing harm (dar' al-mafasid) (Padela et al., 2022; Ghaly, 2022).

Analysis Five Objective Maqashid Al-Syariah (Al-Dharuriyyat Al-Khams)

Within the framework of ushul fiqh developed by Imam Al-Ghazali and Imam Al-Syathibi, all Islamic legal provisions are based on the preservation of five primary interests (Al-Dharuriyyat Al-Khams): preserving the soul (Hifzh al-Nafs), preserving the mind (Hifzh al-Aql), preserving wealth (Hifzh al-Mal), preserving religion (Hifzh al-Din), and preserving descendants/family (Hifzh al-Nasl). The application of these five pillars in justifying the ethical decision of withholding and withdrawing ventilators in vegetative patients in the ICU is described as follows:

Hifzh al- Nafs (Protecting the Soul and the Noble Dignity of the Human Body)

The most common misconception that triggers family refusal in the ICU is the assumption that Hifzh al-Nafs requires maintaining mechanical ventilation indefinitely as long as the patient's heart is still beating. Contemporary Islamic bioethics literature addresses this view through three arguments:

a. **The Cessation of the Obligation to Seek Treatment in Cases of Medical Futility:** The majority of scholars (Jumu'ah Fukaha) have determined that the basic law of treatment (al-tadawi) is permissible or sunnah, and only becomes obligatory if the intervention has a high probability of success (ghalabat al-zhann) to cure or restore a stable and independent life (al-hayah al-mustaqirrah) (Al-Bar & Chamsi-Pasha, 2015; Rashid, 2021). In persistent vegetative patients with irreversible brain damage and organ failure who are fully dependent on a ventilator, the hope of recovery has been scientifically lost, so the obligation to maintain mechanical ventilation is void according to Islamic law
b. **Protection of Human Dignity and Prevention of Ta'dzib al-Maridh:** The principle of Hifzh al-Nafs includes the obligation to maintain the dignity of the human body (hifzh al-karamah al-insaniyah). Maintaining prolonged invasive mechanical ventilation in irreversibly vegetative patients often leads to painful complications—such as chronic tracheostomy, severe decubitus ulcers, Ventilator-Associated Pneumonia (VAP), recurrent sepsis, and continuous invasive suctioning procedures—which no longer provide curative benefits, but instead turn into futile physical torture (ta'dzib al-maridh) (Ghaly, 2022; Suleman, 2023).
c. **Ethical Boundaries between Ventilator Discontinuation and Basic Care (Comfort Care):** Since vegetative patients are not yet in the MBO status, therapy discontinuation only applies to artificial mechanical/pharmacological interventions that are futile (such as mechanical ventilators, vasopressor/inotropic agents, or

dialysis). Basic humane care (basic care/comfort care)—which includes body hygiene, administration of palliative analgesics/sedation to prevent respiratory distress (air hunger), and provision of nutrition and hydration that does not cause complications of fluid overload or aspiration—must be continued (Rashid, 2021; Al-Jadaan & Chamsi-Pasha, 2023).

Hifzh al- Aql (Maintaining Reason, the Concept of Taklif, and Medical Scientific Authority)

The pillar of Hifzh al-Aql plays a central role in evaluating persistent vegetative status. Padela and Mohiuddin (2015) and Padela et al. (2022) emphasize that in Islamic theology and jurisprudence, the noble values of worldly life are closely related to the function of reason and consciousness ('aql), which makes humans moral legal subjects (mukallaf / the concept of taklif). When cerebral cortex damage in vegetative patients is permanent, making it impossible to recover consciousness, physicians are not ethically obligated to maintain ICU machine interventions that fail to restore the mukallaf's capacity. Furthermore, Hifzh al-Aql requires that the determination of disease irreversibility be based on scientific evidence (evidence-based medicine) and the assessment of competent medical specialists (ahl al-khibrah), as emphasized in QS. An-Nahl: 43. The findings should be communicated honestly to the patient's family without creating false hope.

Hifzh al-Mal (Guarding) Wealth and Justice of ICU Resource Distribution)

Treatment of vegetative patients with mechanical ventilators in the ICU can last for weeks to months with enormous operational costs. From the perspective of Hifzh al-Mal, there are two main ethical implications: First, the prohibition of wasting wealth (idha'at al-mal / israf) on interventions that are proven to no longer provide clinical benefits (ghayr al-majdi), which burdens both the family's finances and public health insurance funds. Second, the principle of fair distribution of health resources (triage & distributive justice). Given the limited number of ICU beds and ventilator units in hospitals, maintaining a single ventilator unit for months on a patient with an irreversible prognosis results in bed-blocking, which blocks access to life for other critically ill patients in the Emergency Department (ER) who have a high chance of recovery (salvageable). Thus, the decision to withhold or withdraw in futile cases on a macro level also saves the lives of other patients (collective Hifzh al-Nafs) (Ghaly, 2022; Mohiuddin et al., 2020).

Hifzh al-Din (Protecting Religion, Straightening Faith, Destiny, and Spiritual Rights)

Many patients' families refuse to wean off the ventilator, feeling it's preempting destiny or lacking trust in God. Hifzh al-Din-based education emphasizes that after exhaustive medical efforts and a team of medical experts deems therapy to have reached its limit of medical feasibility, discontinuing futile mechanical interventions is a proportional form of submission to the will of Allah SWT (taslim wa ridha bi al-qadha). This step also facilitates families to accompany the patient in a calm atmosphere, guide them in reciting the phrase "La ilaaha illallah" (There is no god but Allah), and pray devoutly for the patient without being hindered by unnecessary invasive procedures (Suleman, 2023).

Hifzh al- Nasl (Guarding) Descendants, Family Resilience, and Guardianship)

Futile long-term ICU care has been shown to increase the incidence of Post-Intensive Care Syndrome - Family (PICS-F), severe depression, emotional exhaustion, and household economic collapse that threatens the welfare and education of the next generation of the patient's family. In addition, because vegetative patients are in an incompetent state (ghayr mukallaf at that time), the authority to make medical decisions is transferred to the legal guardian/family who is bound by the principle of tasharruf al-wali manuthun bi al-mashlahah (the guardian's decision must be based on the benefit and prevention of harm). A comprehensive mapping of the five pillars of Maqashid Al-Syariah is summarized in Table 5.

Table 5. Analysis Matrix of the Five Goals of Maqashid Al-Syariah in Vegetative Patients on Mechanical Ventilators in the ICU.

Pillars of Maqashid Al-Shariah	Acute Impaired Consciousness Condition (Still Reversible)	Irreversible Persistent Vegetative Condition & Futile Ventilator	Implications of Ethical Decisions (Withholding / Withdrawal) in the ICU
1. Hifzh al-Nafs (Protecting the Soul)	It is mandatory to install and maintain a ventilator to support oxygenation of the brain and vital organs.	The obligation of al-tadawi is dropped due to the absence of ghalabat al-zhann; prolonged invasive ventilation risks becoming ta'dzib al-maridh (physical torture).	Withholding (DNR/do not escalate) and ventilator withdrawal are justified to maintain human dignity, accompanied by full comfort care.
2. Hifzh al-Aql (Maintaining Reason)	Protecting cerebral perfusion so that the patient can regain consciousness and recover as a legal subject (mukallaf).	Permanent damage to the cerebral cortex irreversibly eliminates the capacity for reason (taklif) according to the assessment of a team of specialist doctors (ahl al-khibrah).	Determination of a collegial diagnosis by at least 3 specialist doctors and objective communication to the family without false hope.
3. Hifzh al-Mal (Guarding Property)	ICU care costs are medical expenses that have religious and beneficial value.	Wasteful long-term machine financing includes idha'at al-mal and causes bed-blocking for other salvageable critical patients.	Stopping futile mechanical therapy to prevent family bankruptcy and realize fairness in ICU bed allocation (triage justice).
4. Hifzh al-Din (Guarding Religion)	Saving lives so that patients can return to worship after recovery.	Forcing aggressive mechanical procedures without benefit hinders peaceful end-of-life transitions and family support.	Facilitating family spiritual guidance (talqin & prayer) and straightening out the concept of trust in the destiny of Allah SWT.
5. Hifzh al-Nasl (Protecting the Family)	Maintaining the lives of family members for the sake of the integrity of the family's social function.	Months of futile care trigger severe psychological trauma (PICS-F) and undermine the economic resilience of future generations.	Providing family counseling support and making ethical decisions that protect the psychosocial well-being of the family.

Analysis Rules Jurisprudence Medical (Al-Qawaid Al-Fiqhiyyah) and Ethical Comparison

The operationalization of Maqashid Al-Syariah into fatwas and clinical decisions in the ICU is supported by five main fiqh rules (Al- Qawaid Al- Fiqhiyyah Al-Kubra):

a. **Al-Umuru bi Maqashidiha (Actions Are Judged by Their Intentions): This principle provides a fundamental distinction between ventilator withdrawal and euthanasia.** In active euthanasia, the perpetrator's intention (qashd) is to directly end the patient's life. In contrast, in ventilator withdrawal for vegetative patients experiencing irreversible organ failure, the physician's intention is to stop the mechanical intervention that is no longer working to achieve its therapeutic goal. In terms of fiqh causality, patient death that occurs after ventilator weaning is attributed to the underlying disease (al-maradh al-ashli), not to the physician's action in stopping the machine (Al-Jadaan & Chamsi-Pasha, 2023; INOMATEC Research Group, 2025).

b. **La Dharara wa La Dhirar (You must not cause harm to yourself or others):** Maintaining invasive mechanical ventilation procedures without the benefit of recovery causes dharar (physical complications and suffering to the patient's body) and dhirar (extreme financial burden for the family and blocking access to ICU beds for other critical patients who can be saved) (Suleman, 2023).

c. **Al- Dharar Yuzal wa Lakin La Yuzalu bi Mitslihi (Harm must be removed, but it must not be removed with an equal/greater harm):** The harm of futile mechanical intervention must be removed through dignified weaning of the ventilator (terminal weaning) with the protection of palliative sedation/analgesia, but it is haram to remove it by injecting a lethal substance (active euthanasia) or stopping the provision of basic hydration/nutrition that causes death due to dehydration/starvation (Rashid, 2021).
d. **Dar'ul Mafasid Muqaddamun 'ala Jalbil Mashalih (Rejecting harm takes precedence over achieving doubtful benefits):** When the benefits of maintaining a ventilator in an irreversible vegetative patient are only illusory/highly doubtful (mawhumah), while the harm in the form of nosocomial infection complications, high costs, and ICU bed-blocking is real (muhaqqaqah), then rejecting the harm must take precedence.
e. **Idza Ta'aradha Mafsadatani Ru'iya A'zhamuhuma Dhararan bi Irtikabi Akhaffihima (If two mafsadat clash, then avoid the greatest mafsadat by taking the least mafsadat):** In conditions of limited ICU facilities, maintaining a ventilator in a medical futility case that causes the death of another critical patient on the ICU waiting list who actually has a high life expectancy (salvageable) is a greater collective mafsadat and must be prevented.

A comprehensive comparison between ventilator withholding, ventilator withdrawal, comfort care, and active euthanasia in vegetative patients in the ICU is presented in Table 6.

Table 6. Ethical and Islamic Jurisprudence Comparison between Withholding, Ventilator Withdrawal, Comfort Care, and Active Euthanasia in Vegetative Patients

Comparative Dimensions	Withholding Ventilator (DNR)	Ventilator Withdrawal (Stopping / Weaning)	Basic Care (Comfort Care & Nutrition/Hydration)	Active Euthanasia (Lethal Injection)
Definition of Action	Do not re-intubate, increase machine support, or establish DNR status during deterioration.	Terminal weaning or removal of a ventilator that is proven to be futile.	Maintaining airway hygiene, personal hygiene, pain/shortness of breath control, and appropriate hydration/nutrition.	Intentionally injecting a lethal pharmacological agent to hasten the death of a patient.
Intention Clinical (Al-Qashd)	Avoiding new invasive interventions that do not provide curative benefits (non-maleficence).	Stopping failed artificial interventions to allow natural processes to proceed without physical torture.	Fulfilling basic human rights and maintaining bodily dignity (karamah insaniyah).	Directly killing the patient to end the vegetative state.
Reason Death	Primary pathology / brain damage and the patient's underlying disease (al-maradh al-ashli).	Primary pathology / brain damage and the patient's underlying disease (al-maradh al-ashli).	It does not cause death; it actually prevents physical distress.	Intervention of a lethal substance injected by medical personnel.
Legal Status of Fiqh & Maqashid	Mubah (Permitted) based on the consensus of at least 3 competent specialist doctors.	Mubah (Permissible) in conditions of irreversible medical futility; morally equivalent to withholding.	It must be continued as long as the patient has not died and does not cause medical complications (overload/aspiration).	Absolutely Haram (Qatl al-Nafs / Murder) and violates Hifzh al-Nafs.

Implications Clinical, Medicolegal, and Procedural Guidelines in Hospitals

In order for the decision to withhold and withdraw mechanical ventilators in vegetative patients in the ICU to meet patient safety standards, sharia compliance, and medicolegal protection according to Law Number 17 of 2023 concerning Health (Nathan et al., 2026; Andrianto, 2025), hospitals need to implement a five-stage standard operating procedure (SOP) flow as formulated in Table 7.

Table 7. Procedural Flow for Ventilator Withholding and Withdrawal Decision-Making in Vegetative Patients in the ICU.

Procedural Stage	Acting Actor	Clinical, Ethical, and Medicolegal-Sharia Documentation
Stage 1: Assessment Clinical & Collegial Diagnosis	Specialist Doctor Team (Min. 3 Doctors: Intensivist/Anesthesiologist, Neurologist, and Main DPJP)	Perform a thorough neurological and systemic evaluation after an adequate period of observation to ensure that the vegetative state and organ failure are irreversible (medical futility).
Stage 2: Consultation with the Hospital Ethics Committee & Clergy	DPJP, Hospital Ethics & Legal Committee (KEHRS), and Islamic Spiritual Guidance Team	Submit a case review to KEHRS together with the Islamic Spiritual Development Team to verify the suitability of the decision with the Maqashid Al-Syariah indicators.
Stage 3: Family Conference & Empathetic Communication	ICU Medical Team, Primary Nurse, Chaplain, and Patient's Legal Guardian	Holding a family meeting in a special room to explain the prognosis objectively, clarifying that stopping the futile ventilator is not euthanasia, and educating the family about the principles of Hifzh al-Nafs, Hifzh al-Din, and Hifzh al-Mal.
Stage 4: Legal Documentation & Comfort Care Plan	DPJP, ICU Nurses, and Patient's Family/Guardian	Documenting medical consensus decisions and consent/refusal forms for medical procedures in the medical record in accordance with the provisions of Health Law No. 17 of 2023, followed by the preparation of comfort care protocols (measured palliative analgesia/sedation to prevent air hunger).
Stage 5: Weaning (Terminal Weaning) & Support	ICU Team, Clergy, and Patient's Family	Implementing therapy restrictions or weaning from the ventilator gradually while maintaining appropriate basic nutrition/hydration, body hygiene, and providing privacy for the family to accompany and pray for the patient with dignity.

Study Limitations

This systematic review has several limitations. First, most of the literature analyzed is qualitative-normative, conceptual bioethical analysis, and legal review, considering the impossibility of a randomized controlled trial design on life support withdrawal interventions for ethical reasons. Second, there is variation in medicolegal regulations across Muslim countries regarding the limits of physician authority versus the autonomy of family guardians when there is a disagreement regarding ventilator withdrawal in non-MBO patients. Therefore, multicenter empirical research in various ICUs of Indonesian hospitals is highly recommended in the future.

5. Conclusion

Based on a review of Maqasid Al-Syariah and contemporary medical jurisprudence, supported by a synthesis of relevant literature published between 2021 and 2026, patients in a persistent vegetative state (PVS) are distinguished from those diagnosed with brainstem death (BSD). However, if accompanied by mechanical ventilator dependence and neurological/multi-organ damage that is proven irreversible (medical futility / al-tadawi ghayr al-majdi), then the legal obligation to seek treatment (al-tadawi) is dropped due to the loss of hope of recovery (ghalabat al-zhann) and the permanent loss of conscious capacity (taklif). Under these conditions, the ethical decision to withhold life-sustaining treatment (including

limiting treatment escalation, intubation, or resuscitation) or to withdraw mechanical ventilatory support may be considered permissible (mubah) when supported by appropriate clinical assessment and ethical considerations. Such decisions are distinguished from euthanasia and are consistent with the principles of Hifzh al-Nafs, Hifzh al-Aql, Hifzh al-Mal, Hifzh al-Din, and Hifzh al-Nasl. In contrast to MBO cases where all interventions are stopped for the management of the body, in vegetative patients who are withheld or withdrawn from mechanical ventilators, the ICU team is obliged to continue basic humane care (comfort care), including pain/shortness of breath control, body hygiene, and provision of basic hydration and nutrition as long as it does not cause clinical harm to the patient.

Suggestions and Recommendations

Hospital management and Hospital Ethics and Legal Committees (KEHRS) in Indonesia are encouraged to develop Clinical Practice Guidelines (PPK) and Standard Operating Procedures (SOP) for limiting life-sustaining treatment in ICU patients with chronic disorders of consciousness. These guidelines should integrate objective neurological assessments, multidisciplinary specialist consensus, empathetic communication protocols based on Maqasid Al-Syariah principles, and comprehensive palliative care services.

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