Perspective

Pan African Journal of Emergency and Critical Care (PAJEC)

Ethics under pressure: A narrative review of critical care challenges and contemporary approaches

Nahom Mesfin [1*], Merahi Kefyalew [2]

ABSTRACT

Critical care medicine involves rapid, high-stakes decision-making that often gives rise to complex ethical dilemmas. These challenges are intensified in low-resource settings such as Ethiopia, where infrastructure, training, and access to services are limited.

This narrative review explores four major thematic areas of ethical concern in critical care: resource allocation and triage decisions, end-of-life care, informed consent, and equity in service delivery. It examines both traditional ethical frameworks, including the four principles approach, deontology, and virtue ethics, and contemporary approaches such as narrative ethics, relational autonomy, and ethics consultation services. Cultural values, system limitations, and communication gaps are analyzed with specific reference to the Ethiopian context.

By synthesizing international literature with low-income country realities, the review highlights the urgent need for contextualized ethical guidelines, expanded ethics education, and institutional support mechanisms. Strengthening ethical capacity in critical care is essential to ensure compassionate, fair, and patient-centered care delivery in both high- and low-resource settings.

Keywords: Ethical dilemmas, Critical care, Ethiopia, Resource allocation, Informed consent, End-of-life care

1. Addis Ababa University, Addis Ababa, Ethiopia
Correspondence: Nahom Mesfin
Email: Nahom.mesfin@aau.edu.et
Received: May 10, 2025
Accepted: July 3, 2025
Published: September 3, 2025

Citation: *Nahom Mesfin and Merahi Kefyalew. Ethics under pressure: A narrative review of critical care challenges and contemporary approaches. PAJEC.2025;3(2): Page number: 53-68.*

DOI: https://doi.org/10.58904/2025/212

Introduction

Critical care medicine operates in an environment characterized by high-stakes decision-making, where healthcare professionals are often required to make rapid choices under conditions of extreme uncertainty and significant emotional stress. [1, 2] These settings, which are primarily concerned with managing life-threatening conditions, are inherently prone to ethical dilemmas due to the need to navigate complex scenarios involving conflicting values, scarce resources, and the unpredictable nature of critical illnesses. [3]

In low-income countries like Ethiopia, these ethical dilemmas are further compounded by chronic under-resourcing, limited healthcare infrastructure, and systemic barriers to access. For instance, ICU bed availability and mechanical ventilator access are often extremely limited, placing disproportionate ethical burdens on frontline providers who must make triage decisions with few formal guidelines and under immense pressure. A study reviewing ICU services in Ethiopia reports only 0.3 public ICU beds per 100,000 people, far below those in high-income countries, highlighting the acute scarcity of critical care infrastructure.[4, 5]

One of the most prominent ethical challenges in critical care is the allocation of scarce resources, such as ventilators, ICU beds, medications, and trained personnel, particularly during periods of high demand like pandemics or mass casualty events.[6] During the COVID-19 pandemic, for instance, healthcare systems around the world were forced to implement triage protocols to prioritize care based on factors such as the likelihood of survival and quality-adjusted life years, highlighting the ethical complexities of balancing utilitarian and egalitarian principles in medical decision-making.[7] These protocols, however, often inadvertently exacerbate existing health inequities and disproportionately affect vulnerable populations, further complicating ethical deliberations.[8]

End-of-life care in critical care settings presents another set of substantial ethical dilemmas, particularly around decisions to withhold or withdraw life-sustaining treatments. Healthcare providers must often navigate between respecting patient autonomy and professional assessments of medical futility, while also considering the cultural and religious beliefs of patients and their families.[9] Conflicts can arise when family members demand continued aggressive treatment despite a poor prognosis, which can lead to moral distress among healthcare providers who may feel that the care provided is not in the patient's best interests.[10, 11]

The issue of informed consent is particularly challenging in critical care. Many patients are unable to participate in decision-making due to the severity of their conditions, necessitating the involvement of surrogates who may not always be well-informed or may have conflicts of interest. In emergencies, obtaining informed consent can be further complicated by the level of mentation, time constraints, language barriers, and the absence of advance directives, which complicates the healthcare provider’s ability to act following the patient's wishes.[12] Studies show that up to one-third of ICU admissions involve some degree of surrogate decision-making, and their emotions and cognition undergo complex processes during the decision-making, underscoring the frequency and ethical complexity of these situations.[13]

Equity and fairness in the provision of critical care services also pose significant ethical challenges. Disparities in access to critical care are well-documented, with differences in treatment availability and quality often correlated with factors such as

DOI: https://doi.org/10.58904/2025/212

race, socioeconomic status, insurance coverage, and geographic location. In many cases, systemic inequities may be further exacerbated by implicit biases, institutional policies, or structural barriers, necessitating deliberate efforts to ensure the just distribution of care.[14]

Given the profound impact of these ethical challenges on patients, families, and healthcare providers, there is an urgent need for robust ethical frameworks and strategies to guide decision-making in critical care settings. Various frameworks have been proposed, including those grounded in the principles of bioethics, virtue ethics, and care ethics. Yet, there remains considerable debate over how best to apply these frameworks in diverse and resource-limited environments.[1, 15] This review builds on existing literature to examine the primary ethical dilemmas in critical care and evaluate relevant decision-making frameworks, with attention to their applicability in low-resource settings such as Ethiopia.

Ethical principles

A classic on the subject of medical ethics is Beauchamp and Childress' Principles of Biomedical Ethics. The four principles of beneficence, justice, respect for autonomy, and non-maleficence were "unveiled" in the first edition, which was released in 1979 in the then-emerging field.

Ethical decision-making in critical care revolves around the four fundamental principles. These principles serve as a framework for healthcare providers to navigate complex ethical situations.

A. **Autonomy** refers to the patient's right to make informed decisions about their care, reflecting the values of self-determination and respect for personal choice.

B. **Beneficence** involves actions that promote the well-being of patients, obligating healthcare providers to act in the best interest of the patient.

C. **Non-maleficence** emphasizes the duty to do no harm, requiring careful consideration of the risks and benefits of treatment options.

D. **Justice** relates to fairness in the distribution of healthcare resources, ensuring equitable access and treatment across different populations.

Application in critical care

In critical care settings, these ethical principles guide clinicians' decisions to balance competing demands and values:

A. Autonomy in critical care

The principle of autonomy can be challenging to uphold in critical care, where patients may be incapacitated due to their medical condition and unable to participate in decision-making.

B. Beneficence and non-maleficence in critical care

Beneficence and non-maleficence are central to the critical care practice, where clinicians must continually weigh the potential benefits of life-sustaining treatments against the risks and possible harms.[16] This is particularly challenging in cases with uncertain prognoses or where interventions may prolong suffering without meaningful recovery.

C. Justice in critical care

The principle of justice is particularly relevant in critical care during times of resource scarcity, such as pandemics or mass casualty events, where decisions about allocating limited resources must be made.

Major ethical dilemmas in critical care

DOI: https://doi.org/10.58904/2025/212

These dilemmas often arise due to conflicts between ethical principles, clinical uncertainty, limited resources, and diverse patient values and preferences. To address such challenges, clinicians rely on structured ethical frameworks, interdisciplinary collaboration, and institutional ethics consultation services, which guide real-time decision-making. Three central areas of ethical concern in critical care are resource allocation and triage decisions, end-of-life care decisions, and informed consent.

1. Resource allocation and triage decisions

Resource allocation in critical care refers to the difficult choices that must be made about the distribution of a few resources, such as ventilators, ICU beds, drugs, and staff time, particularly in times of emergency or natural catastrophe.[9, 17] Triage decisions, particularly in resource-limited environments, amplify the challenge of applying ethical principles fairly and consistently in time-pressured scenarios.[17]

Triage is a common process used to prioritize patients based on their clinical condition and likelihood of benefit from treatment. However, triage decisions can be controversial, as they may disadvantage certain groups of patients, leading to ethical debates about fairness and equity.[6] For instance, during the COVID-19 pandemic, many triage protocols prioritized patients with the highest likelihood of survival, which sometimes disadvantaged older adults and those with disabilities.[18]

Ethical frameworks for triage

Various ethical frameworks have been proposed to guide triage decisions:

- **Utilitarian approach:** this approach aims to maximize overall benefits by prioritizing patients most likely to survive with treatment or those who require fewer resources. While practical, this method may disadvantage older adults, those with disabilities, or individuals with pre-existing conditions, raising concerns about discrimination.[19]
- **Egalitarian approach:** this approach advocates for equal access to treatment regardless of prognosis, often using a "first-come, first-served" basis or random selection (lottery system). While fair in principle, this approach may not always be practical in emergencies where time and resources are scarce.[20]
- **Priority to the worst off:** this ethical principle, also known as the "rule of rescue," emphasizes prioritizing those who are most critically ill or at greatest risk of death. However, this can sometimes conflict with utilitarian approaches and lead to less efficient use of limited resources.[21]
- **Life cycle or fair innings approach:** this method gives priority to younger patients or those who have not yet lived through a normal life span, based on the idea of maximizing the total number of life years saved. While this approach may be socially acceptable, it also raises ethical concerns about ageism and the equal value of all lives.[22]

In Ethiopia, the absence of national critical care triage protocols during pandemics or disasters can lead to inconsistencies and moral distress. While utilitarian principles might theoretically guide resource allocation, in practice, healthcare workers often rely on ad hoc judgments shaped by urgency, cultural expectations, and the availability of equipment. Physicians frequently face bedside rationing and fairness dilemmas due to resource limitations and a lack of supporting guidelines.[4]

2. End-of-Life care decisions

DOI: https://doi.org/10.58904/2025/212

Medical futility refers to situations where interventions like mechanical ventilation, extracorporeal oxygenation, intra-aortic balloon counterpulsation devices, hemodialysis, and organ transplantation are unlikely to achieve meaningful benefits for the patient, such as survival with a reasonable quality of life. In critical care, defining and recognizing medical futility is particularly challenging due to clinical uncertainty, differing definitions of what constitutes "meaningful" outcomes, and variable prognostic tools.[23]

In many Ethiopian healthcare settings, end-of-life decisions are influenced by limited access to palliative care services and a lack of legal frameworks supporting advance directives. Cultural values also emphasize family-centered decision-making, often making it challenging to navigate conflicts between perceived obligations to continue treatment and clinical judgments of medical futility. Palliative care in Ethiopia remains urban-centric and donor-driven, with rural regions, home to ≈78% of the population, receiving little to no access.[24] A qualitative study across referral hospitals in the Amhara region reveals gaps in end-of-life care education, limited hospice programs, and patient suffering at life's end.[25]

A. Balancing autonomy and beneficence

There is often a tension between respecting patient autonomy, honoring their wishes, advance directives, or surrogate decisions, and healthcare providers' duty of beneficence, which may involve recommending the cessation of non-beneficial or harmful treatments.

Conflicts may arise when patients or their families demand life-sustaining treatments deemed medically futile by healthcare providers. While some jurisdictions allow providers to refuse such requests, others require continued treatment until an agreement is reached, creating ongoing ethical and legal challenges.[26]

B. Communication challenges

Effective communication between providers, patients, and families is crucial for making informed end-of-life care decisions. However, communication breakdowns are common, particularly in high-stress environments like ICUs, and can exacerbate ethical conflicts. A lack of formal training in navigating cultural values, shared decision-making, and palliative care communication further complicates end-of-life decision-making. Communication barriers may include language differences, cultural misunderstandings, emotional distress, or unrealistic expectations about treatment outcomes. Structured communication interventions, such as family meetings, decision aids, and ethics consultations, have been shown to improve understanding and reduce conflict.[27]

Ethical frameworks for end-of-life care decisions

Ethical decision-making at the end of life often employs a combination of the principle-based approach, virtue ethics, and narrative ethics. The principle of beneficence supports the compassionate withdrawal of futile interventions, while non-maleficence emphasizes the avoidance of harm through prolonged suffering. Autonomy is respected through advance directives or surrogate decision-making, although these are often underutilized in low-income contexts.

Narrative ethics encourages clinicians to understand patients' lived experiences and cultural narratives, which is particularly important in Ethiopia, where decisions are frequently guided by family consensus and spiritual values. Virtue ethics, emphasizing compassion, honesty, and courage, also plays a key role in supporting healthcare professionals through emotionally taxing end-of-life scenarios.[28]

DOI: https://doi.org/10.58904/2025/212

In Ethiopia and similar LICs, cultural values such as collective family decision-making, religious beliefs about suffering and death, and limited availability of palliative care services significantly influence end-of-life decisions. The lack of hospice infrastructure and legal recognition of advance directives often leaves healthcare providers in ethically gray zones, requiring culturally sensitive, case-specific judgment.

3. Informed consent in critical care

Informed consent is the process by which patients or their surrogates are provided with adequate information to make voluntary, well-informed decisions about their care. In critical care, obtaining informed consent is challenging due to the acuity of the patient's condition, the urgency of decision-making, and the frequent lack of patient capacity.

When patients cannot provide consent, surrogates are often involved; however, they may face emotional distress, have a limited understanding of medical complexities, or lack knowledge of the patient's true preferences.[29]

In Ethiopia, informed consent is further complicated by language diversity, limited health literacy, and traditional beliefs about authority and healing. Clinicians may struggle to balance the ethical obligation of patient autonomy with family-centered norms and urgent decision-making in emergency settings. These challenges reveal the importance of incorporating ethics and culturally sensitive communication training into clinical practice, particularly in multilingual and low-literacy settings. A study on breaking bad news in Ethiopia emphasized that patients prefer gradual, empathetic disclosure, accompanied by families, tailored to religious values and cultural norms.[30]

Ethical frameworks for informed consent in critical care

The ethical basis for informed consent is rooted in autonomy, supported by fidelity and veracity. In critical care, clinicians must make rapid decisions while ensuring respect for the patient's rights and preferences. The relational autonomy framework is particularly applicable in LICs like Ethiopia, where family members often share in decision-making and where individual autonomy is socially contextualized.[30]

Casuistry, or case-based reasoning, also plays a role in adapting consent practices to complex, time-sensitive scenarios, especially when cultural norms prioritize collective decision-making or when formal advance directives are absent.

Cultural norms in Ethiopia often emphasize deference to authority, family-centered consent, and spiritual beliefs in healing, which can complicate Western notions of individual autonomy. In areas with limited health literacy, clinicians must also navigate how best to ensure informed participation while balancing time constraints and patient vulnerability.[30]

Ethical frameworks and approaches for decision-making in critical care

Ethical decision-making in critical care involves applying structured frameworks to navigate complex dilemmas and balance competing values. Several frameworks guide clinicians in making ethically sound decisions that respect patient autonomy, promote beneficence, minimize harm, and ensure justice. Generally speaking, healthcare professionals prioritize issues like patient rights, justice, comfort, dignity, and respect for their wishes. A crucial component of aligning the care given with the patient's preferences, expectations, values, and circumstances is involving the patient and family in the decision-making process, whenever feasible. Figure 1 illustrates the ethical decision-making process in critical care

DOI: https://doi.org/10.58904/2025/212

settings. It outlines key steps, including recognizing ethical dilemmas, interdisciplinary team discussion, evaluating ethical principles, involving patients or surrogates, and transparent disclosure. The arrows indicate the logical sequence of actions, emphasizing that ethical decision-making is a dynamic and collaborative process guided by core bioethical principles. (adapted from Amanda Rischbieth, Julie Benbenishty, Ethical Issues in Critical Care | Clinical Gate).[31]

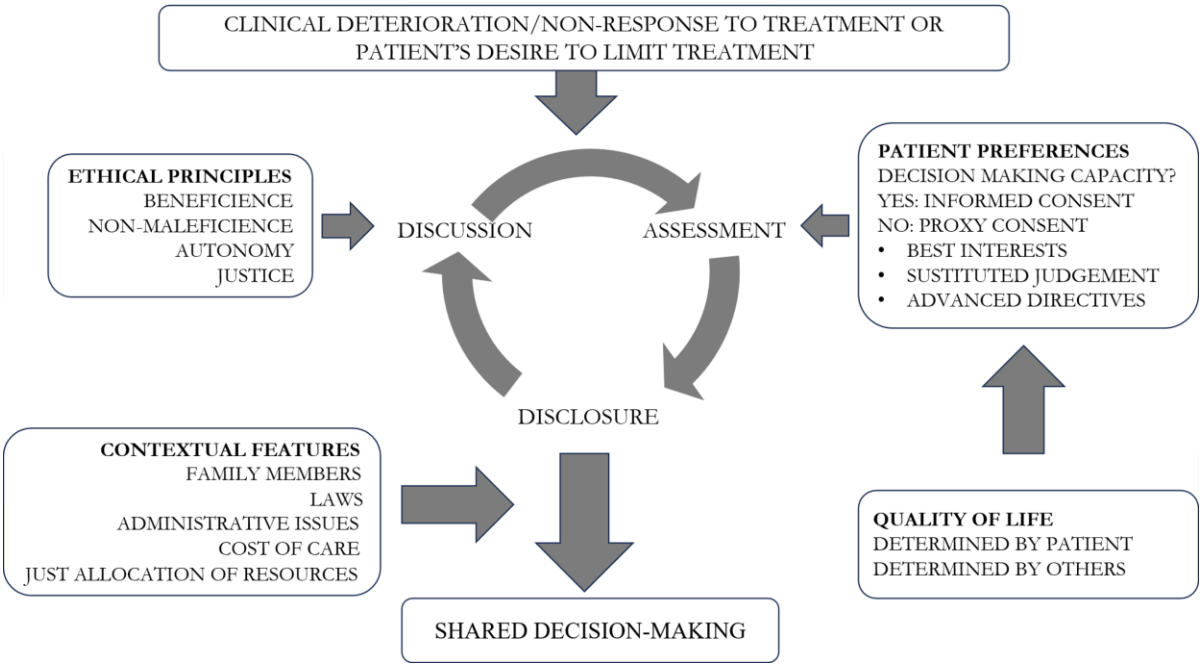

Figure 1: The ethical decision-making process in times of ethical dilemma in critical care

Ethical decision-making in critical care involves utilizing both traditional ethical frameworks and contemporary approaches to address complex dilemmas and balance competing values. Below is a classification of these frameworks and approaches:

1. Traditional ethical frameworks

A. Four-Principles Approach

The four-principles approach (Beauchamp & Childress) emphasizes the core principles of autonomy, beneficence, non-maleficence, and justice. It serves as a foundational framework for ethical decision-making by providing a balanced method to consider different ethical aspects in critical care. In critical care, this framework helps navigate ethical issues by respecting patient autonomy, ensuring beneficence and non-maleficence, and promoting justice, particularly in resource allocation and end-of-life care.

- **Advance directives**, such as living wills or durable powers of attorney for healthcare, are tools designed to protect patient autonomy in critical care. These documents allow individuals to outline their preferences for medical treatment should they become unable to communicate their decisions. However, they are often underutilized or unavailable in urgent situations, creating ethical tension for healthcare providers who must act in the patient's best interest while respecting their autonomy.[32]
- When patients are incapacitated and unable to communicate their preferences, the **Substituted Judgment Principle** is employed to guide decision-making. This principle directs

DOI: https://doi.org/10.58904/2025/212

surrogates, often family members, to make choices that align with what the patient would have wanted, based on their known values and prior statements. The goal is to respect the patient's autonomy even in the absence of direct consent. However, challenges arise when surrogates lack sufficient knowledge of the patient's wishes or when these wishes conflict with the healthcare team's assessment of what is in the patient's best interest.[33]

B. Casuistry

Casuistry focuses on case-based reasoning and uses specific examples to navigate ethical dilemmas, drawing on past cases and analogies. In critical care, this approach is useful for resolving complex instances in which general principles may conflict, providing flexibility and context-specific judgment.[34]

C. Deontology

First put forward by Immanuel Kant (1724 – 1804), deontology is a duty-based ethical framework that prioritizes adherence to moral rules and principles, regardless of the consequences. It is grounded in the belief that certain actions are inherently right or wrong.[35]

Deontology plays a significant role in guiding decisions in critical care by emphasizing strict adherence to moral principles and ethical rules.[36] In high-pressure ICU settings, this means prioritizing duties such as maintaining confidentiality, ensuring informed consent, and honoring advance directives, like do-not-resuscitate (DNR) orders. For instance, clinicians are often faced with the ethical obligation to uphold a patient's autonomy by respecting their documented wishes, even when family members push for alternative actions.

However, deontology's rigidity can present challenges. In the rapidly evolving circumstances of critical care, strict adherence to rules may not always accommodate the complexities of individual cases.[37] For example, a rigid commitment to a DNR order might overlook new, potentially life-saving interventions that align with the patient's broader values. Additionally, conflicts between ethical duties, such as balancing respect for autonomy with the duty to prevent harm, can create moral dilemmas for providers. Deontology's focus on the morality of actions rather than their outcomes can further complicate decisions when lives are at stake.[37]

While deontology provides a strong ethical foundation in critical care, its limitations highlight the need for complementary approaches, such as phronesis (practical wisdom) or narrative ethics, to navigate the complex and context-sensitive nature of critical care environments.

D. Virtue ethics

Virtue ethics centers on the character and moral virtues of healthcare providers, such as compassion, courage, and integrity. In critical care, it emphasizes the importance of the clinician's moral integrity and character in making decisions, particularly in morally distressing situations.[38]

E. Ethics of care

The ethics of care approach highlights the importance of caring relationships, empathy, and responsiveness to patient needs. In critical care, this framework supports a compassionate, patient-centered approach that addresses the emotional, social, and psychological needs of patients and their families.[39]

F. Fidelity

Fidelity refers to the ethical duty of healthcare providers to remain loyal, uphold commitments, and maintain trust with patients and their families.[40] Fidelity is essential in high-pressure environments like ICUs, where patients and families

DOI: https://doi.org/10.58904/2025/212

rely heavily on healthcare providers to act in their best interest. This includes maintaining continuity of care, being transparent about treatment goals, and advocating for the patient even when resource limitations or institutional policies pose challenges.[41] For example, a critical care physician might prioritize a patient's well-being over administrative pressures to discharge or transfer for resource optimization.

G. Veracity

Veracity is the ethical obligation to tell the truth and provide patients with accurate and honest information.[38] In critical care, veracity becomes particularly important in end-of-life discussions or when communicating about prognosis and treatment options. While full disclosure is essential, balancing honesty with empathy can be challenging, especially when delivering bad news. Veracity ensures that patients and families can make informed care decisions, fostering trust and ethical practice.

H. Paternalism

Paternalism involves making decisions on behalf of patients, based on the belief that it is in their best interest, sometimes overriding their autonomy.[42] In critical care, paternalism often arises when patients are incapacitated, requiring surrogates or healthcare providers to act on their behalf. While well-intentioned, paternalistic actions can conflict with respect for autonomy, especially if advance directives are unclear or unavailable.[43] For instance, a critical care team might initiate emergency surgery on an unconscious patient without consent, following the principle of implied consent. While paternalistic, this action is ethically justified to save the patient's life.

2. Contemporary approaches

A. Narrative ethics

Narrative ethics focuses on understanding the patient's and family's stories, values, and lived experiences to inform ethical decision-making. In critical care, it emphasizes individualized care and helps guide end-of-life decisions or conflicts over treatment goals by incorporating the patient's narrative into the decision-making process.[44]

B. Relational autonomy

Relational autonomy emphasizes the social context, relationships, and power dynamics that influence decision-making. According to this decision-making, exclusively focused on the individual exercise of autonomy fails to align well with patients' preferences at the end of life. In critical care, this approach addresses ethical issues related to cultural sensitivities, power imbalances, and family dynamics, providing a more nuanced understanding of patient autonomy.[28]

C. Ethics consultation services

Ethics consultation services offer structured support for healthcare teams, patients, and families in navigating ethical dilemmas through ethics committees or trained ethicists. In critical care, these services help improve communication, reduce moral distress, and mediate conflicts, ensuring ethically sound decision-making.

D. Moral distress mitigation strategies

These strategies aim to address moral distress experienced by healthcare providers when external constraints prevent them from acting according to their ethical beliefs. In critical care, approaches like ethics education, open communication, and organizational policy development help mitigate moral distress and promote ethical practice.[45]

The emotional burden of bedside triage, especially without structured ethical guidance, underscores the need for targeted ethics education and formal triage training in resource-limited settings like Ethiopia.

DOI: https://doi.org/10.58904/2025/212

E. Interdisciplinary team approaches

Interdisciplinary teams involving physicians, nurses, social workers, chaplains, and ethicists provide diverse perspectives and shared decision-making in ethical dilemmas. These teams are crucial in critical care for comprehensive and collaborative decision-making, ensuring all voices are considered.[46]

The unclassified phronesis

Phronesis (practical wisdom) is best understood as a more inclusive method that transcends the traditional vs. contemporary classification. It serves as a meta-ethical concept foundational to all ethical decision-making, regardless of the framework employed.

But why?

Foundational nature

Phronesis originates from Aristotelian philosophy and emphasizes practical wisdom, which underpins ethical reasoning in any context. It is not tied to any specific ethical framework but rather informs how frameworks are applied in real-world situations.

Universality

Both traditional approaches (like the four-principles approach, deontology, or virtue ethics) and contemporary approaches (like relational autonomy or narrative ethics) benefit from the application of phronesis. It guides practitioners in choosing which framework or principle to prioritize based on the specific context.

Adaptability across time

While rooted in classical philosophy, phronesis is timeless and applicable to modern, evolving ethical challenges. It supports the contextual, nuanced application of principles that are crucial in dynamic settings like critical care.

Hence, phronesis is a general and overarching concept. It acts as the ethical "glue" that allows both traditional and contemporary frameworks to be applied wisely and effectively in real-world situations, particularly in complex environments like critical care. It is not confined to any one approach but rather enriches and supports ethical decision-making across all paradigms.

Strengthening ethical practice in critical care settings

The field of critical care is evolving rapidly, presenting new ethical challenges that demand innovative solutions. As healthcare systems become more complex and patient populations more diverse, there is a growing need for robust ethical frameworks, policies, and strategies to address dilemmas in critical care settings.

1. Enhancing ethical competence through training and institutional support

Although not always explicitly addressed, many of the ethical challenges in this review, such as end-of-life care decisions, informed consent under pressure, and fair resource allocation, require healthcare professionals to possess strong ethical reasoning and communication skills. Institutions in Ethiopia and other LICs should incorporate targeted ethics education into medical and nursing curricula and provide in-service training focused on context-relevant dilemmas. These programs can improve clinicians' capacity to apply ethical frameworks practically in emotionally and culturally complex situations.

Enhancing ethics training for healthcare professionals

Critical care teams should receive comprehensive ethics training as part of their professional development. This training should encompass not only the theoretical aspects of traditional ethical

DOI: https://doi.org/10.58904/2025/212

frameworks but also practical skills in communication, conflict resolution, and cultural competence. Incorporating ethics training in medical and nursing curricula will better prepare clinicians to handle ethical dilemmas effectively and confidently.[47]

Implementing simulation-based ethics education

Simulation-based education has proven effective in teaching complex clinical skills and could be adapted to ethical decision-making. Scenario-based learning allows healthcare professionals to practice responding to ethical challenges in a controlled environment, enhancing their confidence and competence in real-life situations.[48] Expanding simulation programs to include ethical dilemmas related to end-of-life care, resource allocation, and patient autonomy can promote more robust ethical practices.

2. Promoting interdisciplinary collaboration and communication

Encouraging interdisciplinary teamwork

Collaboration among healthcare professionals from diverse disciplines is crucial for addressing ethical dilemmas comprehensively. Institutions should foster a culture that promotes open dialogue, respect, and shared decision-making among interdisciplinary team members. Regular ethics rounds or multidisciplinary meetings can facilitate this exchange of perspectives, reducing misunderstandings and fostering consensus.[49]

Improving communication with patients and families

Effective communication is fundamental to ethical decision-making in critical care. Healthcare providers should be trained in patient-centered communication techniques to build trust, clarify values, and ensure that patient and family preferences are understood and respected.[50] Using decision aids and adopting shared decision-making models can help bridge the gap between clinicians and families, particularly in high-stress environments like the ICU.

Ethical decision-making frameworks such as the four-principles approach, ethics of care, and narrative ethics are most effective when applied through interdisciplinary collaboration. In critical care, diverse team members, including physicians, nurses, social workers, and chaplains, bring different perspectives that enrich ethical deliberation. Ethical frameworks serve as shared languages that help these teams evaluate complex cases together, promoting consensus, clarity, and moral integrity in decisions.

3. Strengthening institutional support and policies

Developing clear ethical guidelines and protocols

Healthcare institutions should develop and regularly update ethical guidelines and protocols tailored to the complexities of critical care. These guidelines should cover key issues such as withdrawing and withholding life-sustaining treatment, managing medical futility, and handling conflicts of interest. Institutions should ensure that all staff members are familiar with these guidelines and that they are consistently applied in practice.

Establishing robust ethics consultation services

Hospitals should enhance access to ethics consultation services to support healthcare providers, patients, and families when ethical dilemmas arise. These services should include trained ethicists and multidisciplinary ethics committees capable of offering timely and impartial advice to assist with complex decision-making processes,

DOI: https://doi.org/10.58904/2025/212

for instance, when there are unrepresented patients among others.[51]

4. Addressing moral distress and enhancing provider well-being

Implementing oral distress mitigation programs

Moral distress is a significant issue for critical care providers, leading to burnout, reduced job satisfaction, and compromised patient care. Institutions should implement programs to identify, measure, and mitigate moral distress among healthcare providers, including peer support groups, debriefing sessions, and resilience training.[52]

Promoting a culture of ethical practice and support

Creating a supportive environment that prioritizes ethical practice is essential for fostering moral courage and integrity among healthcare providers. Leadership should encourage open discussion of ethical concerns, recognize ethical challenges as a natural part of clinical practice, and provide resources to support ethical decision-making.[53]

5. Capitalizing on technology and innovation

Utilizing digital tools for ethical decision-making

Technology, such as Artificial Intelligence (AI) and machine learning, has the potential to assist in ethical decision-making by providing real-time data analysis and decision support. These tools could help predict patient outcomes, optimize resource allocation, and identify potential ethical conflicts early, enabling proactive management of ethical dilemmas. The article "Use of Artificial Intelligence in critical care: opportunities and obstacles" by Pinsky et al. (2024) discusses the integration of AI-based clinical decision support systems (CDSS) in critical care. While AI offers significant potential to improve decision-making, challenges include data biases, lack of model transparency, legal barriers, and technical integration issues. The authors emphasize responsible design, fairness, and situational awareness in AI applications. They advocate for robust governance, interdisciplinary collaboration, and workforce upskilling to ensure safe and effective implementation.[54]

Developing telemedicine and remote ethics consultation services

With the expansion of telemedicine, remote ethics consultations could become more feasible, providing access to ethics expertise for providers in remote or underserved areas. This can help ensure that all critical care settings, regardless of location, can benefit from structured ethical guidance.[55]

6. Tailoring ethical frameworks for low-income contexts

Ethical decision-making frameworks must be adapted to local realities. In Ethiopia, this includes developing context-specific guidelines, investing in ethics education tailored to resource-limited environments, and promoting community engagement in discussions about critical care ethics. Expanding access to ethics consultation services and palliative care, even though telehealth, can help bridge the ethical support gap in under-resourced hospitals.

Conclusion

Ethical dilemmas in critical care are inevitable due to the high-stakes nature of the environment, where rapid decisions must often be made with limited resources and information. Challenges surrounding resource allocation, end-of-life care, informed consent, and ensuring equity are particularly pronounced in low-income countries like Ethiopia, where infrastructural, legal, and cultural

DOI: https://doi.org/10.58904/2025/212

factors further complicate ethical decision-making.

This review highlights how applying both traditional ethical frameworks (such as the four-principles approach, deontology, and virtue ethics) and contemporary approaches (including narrative ethics, relational autonomy, and interdisciplinary consultation) can guide clinicians through complex ethical scenarios.

Strengthening ethical practice in critical care requires a multifaceted approach that includes ethics education, institutional support, culturally sensitive communication, and context-specific guidelines. By integrating these strategies, critical care teams can foster more compassionate, just, and patient-centered care, even under pressure.

Abbreviations

PAJEC: Pan African Journal of Emergency and Critical Care
ICU: Intensive Care Unit
COVID-19: Coronavirus Disease 2019
QALY: Quality-Adjusted Life Years
DNR: Do Not Resuscitate
AI: Artificial Intelligence
CDSS: Clinical Decision Support Systems
LIC / LICs: Low-Income Country / Low-Income Countries

Author Contributions

NMM conceived the study, led the literature review, and drafted the initial manuscript.
MKM contributed to the literature search, analysis, and drafting of sections on end-of-life care and informed consent.
Both authors reviewed, revised, and approved the final manuscript.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of Interest

The authors declare that they have no conflicts of interest related to this work.

Acknowledgments

The authors thank the Pan African Journal of Emergency and Critical Care reviewers for their constructive feedback.

References

1) Beauchamp T, Childress J: Principles of Biomedical Ethics: Marking Its Fortieth Anniversary. *The American Journal of Bioethics* 2019, 19(11):9-12.
2) Truog RD, Mitchell C, Daley GQ: The Toughest Triage - Allocating Ventilators in a Pandemic. *N Engl J Med* 2020, 382(21):1973-1975.
3) Curtis JR, Kross EK, Stapleton RD: The Importance of Addressing Advance Care Planning and Decisions About Do-Not-Resuscitate Orders During Novel Coronavirus 2019 (COVID-19). *Jama* 2020, 323(18):1771-1772.
4) Miljeteig I, Defaye F, Desalegn D, Danis M: Clinical ethics dilemmas in a low-income setting - a national survey among physicians in Ethiopia. *BMC Med Ethics* 2019, 20(1):63.
5) Kifle F, Boru Y, Tamiru HD, Sultan M, Walelign Y, Demelash A, Beane A, Haniffa R, Gebreyesus A, Moore J: Intensive Care in Sub-Saharan Africa: A National Review of the Service Status in Ethiopia. *Anesth Analg* 2022, 134(5):930-937.
6) White DB, Lo B: A Framework for Rationing Ventilators and Critical Care Beds During the COVID-19 Pandemic. *Jama* 2020, 323(18):1773-1774.
7) Vergano M, Bertolini G, Giannini A, Gristina GR, Livigni S, Mistraletti G, Riccioni L, Petrini F: Clinical ethics recommendations for the allocation of intensive care treatments in exceptional, resource-limited circumstances: the Italian perspective during the COVID-19 epidemic. *Crit Care* 2020, 24(1):165.

DOI: https://doi.org/10.58904/2025/212

8) Berlinger et al.: Ethical Framework for Health Care Institutions Responding to Novel Coronavirus SARS-CoV-2 (COVID-19). 2020.
9) Supady A, Curtis JR, Abrams D, Lorusso R, Bein T, Boldt J, Brown CE, Duerschmied D, Metaxa V, Brodie D: Allocating scarce intensive care resources during the COVID-19 pandemic: practical challenges to theoretical frameworks. *Lancet Respir Med* 2021, 9(4):430-434.
10) 1Alfheim HB, Hofsø K, Småstuen MC, Tøien K, Rosseland LA, Rustøen T: Post-traumatic stress symptoms in family caregivers of intensive care unit patients: A longitudinal study. *Intensive and Critical Care Nursing* 2019, 50:5-10.
11) Ning J, Cope V: Open visiting in adult intensive care units – A structured literature review. *Intensive and Critical Care Nursing* 2020, 56:102763.
12) Weaver MS, Alfandre DJ: Informed Consent by Any Other Name: Consent Processes for Emergency Use Authorization. *J Clin Pharmacol* 2021, 61(6):731-733.
13) Sui W, Gong X, Qiao X, Zhang L, Cheng J, Dong J, Zhuang Y: Family members' perceptions of surrogate decision-making in the intensive care unit: A systematic review. *International Journal of Nursing Studies* 2023, 137:104391.
14) Jindal M, Chaiyachati KH, Fung V, Manson SM, Mortensen K: Eliminating health care inequities through strengthening access to care. *Health Serv Res* 2023, 58 Suppl 3(Suppl 3):300-310.
15) Varkey B: Principles of Clinical Ethics and Their Application to Practice. *Med Princ Pract* 2021, 30(1):17-28.
16) Bosslet GT, Lo B, White DB: Resolving Family-Clinician Disputes in the Context of Contested Definitions of Futility. *Perspect Biol Med* 2018, 60(3):314-318.
17) Daugherty Biddison EL, Faden R, Gwon HS, Mareiniss DP, Regenberg AC, Schoch-Spana M, Schwartz J, Toner ES: Too Many Patients…A Framework to Guide Statewide Allocation of Scarce Mechanical Ventilation During Disasters. *Chest* 2019, 155(4):848-854.
18) Zhu J, Brenna CTA, McCoy LG, Atkins CGK, Das S: An ethical analysis of clinical triage protocols and decision-making frameworks: what do the principles of justice, freedom, and a disability rights approach demand of us? *BMC Medical Ethics* 2022, 23(1):11.
19) Vearrier L, Henderson CM: Utilitarian Principlism as a Framework for Crisis Healthcare Ethics. *HEC Forum* 2021, 33(1):45-60.
20) Abatemarco A, Beraldo S, Stroffolini F: Equality of opportunity in health care: access and equal access revisited. *International Review of Economics* 2020, 67(1):13-29.
21) Dawson A, Isaacs D, Jansen M, Jordens C, Kerridge I, Kihlbom U, Kilham H, Preisz A, Sheahan L, Skowronski G: An Ethics Framework for Making Resource Allocation Decisions Within Clinical Care: Responding to COVID-19. *Journal of Bioethical Inquiry* 2020, 17(4):749-755.
22) White DB, Katz MH, Luce JM, Lo B: Who should receive life support during a public health emergency? Using ethical principles to improve allocation decisions. *Ann Intern Med* 2009, 150(2):132-138.
23) Kopar PK, Visani A, Squirrell K, Brown DE: Addressing Futility: A Practical Approach. *Crit Care Explor* 2022, 4(7):e0706.
24) Aregay A, O'Connor M, Stow J, Ayers N, Lee S: Palliative care in Ethiopia's rural and regional health care settings: a qualitative study of enabling factors and implementation challenges. *BMC Palliative Care* 2023, 22(1):156.
25) Abate AT, Amdie FZ, Bayu NH, Gebeyehu D, G/Mariam T: Knowledge, attitude and associated factors towards end of life care among nurses' working in Amhara Referral Hospitals, Northwest Ethiopia: a cross-sectional study. *BMC Research Notes* 2019, 12(1):521.
26) Al-Wathinani AM, Barten DG, Alsahli H, Alhamid A, Alghamdi W, Alqahtani W, Alghamdi R, Aljuaid M, Albaqami NA, Goniewicz K: The Right to Refuse:

DOI: https://doi.org/10.58904/2025/212

Understanding Healthcare Providers' Perspectives on Patient Autonomy in Emergency Care. *Healthcare (Basel)* 2023, 11(12).
27) Schouten BC, Cox A, Duran G, Kerremans K, Banning LK, Lahdidioui A, van den Muijsenbergh M, Schinkel S, Sungur H, Suurmond J *et al*: Mitigating language and cultural barriers in healthcare communication: Toward a holistic approach. *Patient Educ Couns* 2020.
28) Gómez-Vírseda C, de Maeseneer Y, Gastmans C: Relational autonomy in end-of-life care ethics: a contextualized approach to real-life complexities. *BMC Med Ethics* 2020, 21(1):50.
29) Dhar R, Gupta A: Surrogate Decision-Making. In: *Psychiatric Ethics in Late-Life Patients: Medicolegal and Forensic Aspects at the Interface of Mental Health.* edn. Edited by Balasubramaniam M, Gupta A, Tampi RR. Cham: Springer International Publishing; 2019: 141-152.
30) Ayalew EA, Mphuthi DD, Matlhaba KL: Patients' preferences for delivering bad news in palliative care in Ethiopia: a qualitative study. *BMC Palliative Care* 2023, 22(1):170.
31) Amanda Rischbieth JB: Ethical Issues in Critical Care. In.; 2015.
32) Gutierrez KM: Advance directives in an intensive care unit: experiences and recommendations of critical care nurses and physicians. *Crit Care Nurs Q* 2012, 35(4):396-409.
33) Moss KO, Douglas SL, Baum E, Daly B: Family Surrogate Decision-making in Chronic Critical Illness: A Qualitative Analysis. *Crit Care Nurse* 2019, 39(3):e18-e26.
34) Braunack-Mayer A: Casuistry as bioethical method: an empirical perspective. *Social Science & Medicine* 2001, 53(1):71-81.
35) Michalsen A, Vergano M, Quintel M, Sadovnikoff N, Truog RD: Epilogue: Critical Care During a Pandemic – A Shift from Deontology to Utilitarianism? In: *Compelling Ethical Challenges in Critical Care and Emergency Medicine.* edn. Edited by Michalsen A, Sadovnikoff N. Cham: Springer International Publishing; 2020: 157-166.Thompson DR: Principles of ethics: In managing a critical care unit. *Critical Care Medicine* 2007, 35(2):S2-S10.
36) Pryor McCann JM: Ethics in Critical Care Nursing. *Critical Care Nursing Clinics* 1990, 2(1):1-13.
37) ADENUGBA OA: VIRTUE ETHICS AND THE DUTY OF VERACITY IN PHYSICIAN-PATIENT RELATIONSHIP. 2014.
38) Schuchter P, Heller A: The Care Dialog: the "ethics of care" approach and its importance for clinical ethics consultation. *Med Health Care Philos* 2018, 21(1):51-62.
39) Flanagan W: Guide to Fidelity in Healthcare Ethics. 2024.
40) Ginsburg LR, Hoben M, Easterbrook A, Anderson RA, Estabrooks CA, Norton PG: Fidelity is not easy! Challenges and guidelines for assessing fidelity in complex interventions. *Trials* 2021, 22(1):372.
41) Rodriguez-Osorio CA, Dominguez-Cherit G: Medical decision making: paternalism versus patient-centered (autonomous) care. *Current Opinion in Critical Care* 2008, 14(6):708-713.
42) Hwang DY, Bernat JL: Neurologists and end-of-life decision-making. *Neurology Clinical Practice* 2015, 5(1):6-8.
43) Childress A, Lee SW, Matsler JS, Farroni JS: Clarifying and Expanding the Role of Narrative in Ethics Consultation. *J Clin Ethics* 2020, 31(3):241-251.
44) Semler LR: Moral distress to moral success: Strategies to decrease moral distress. *Nurs Ethics* 2023, 30(1):58-70.
45) McLaney E, Morassaei S, Hughes L, Davies R, Campbell M, Di Prospero L: A framework for interprofessional team collaboration in a hospital setting: Advancing team competencies and behaviours. *Healthc Manage Forum* 2022, 35(2):112-117.
46) Andersson H, Svensson A, Frank C, Rantala A, Holmberg M, Bremer A: Ethics education to support ethical competence learning in healthcare: an integrative systematic review. *BMC Med Ethics* 2022, 23(1):29.

DOI: https://doi.org/10.58904/2025/212

47) Emmerich N, Gormley G, McCullough M: Ethics of healthcare simulation. In: *Healthcare Simulation Education.* edn.; 2017: 119-126.
48) McLaney E, Morassaei S, Hughes L, Davies R, Campbell M, Di Prospero L: A framework for interprofessional team collaboration in a hospital setting: Advancing team competencies and behaviours. *Healthcare Management Forum* 2022, 35(2):112-117.
49) Sharkiya SH: Quality communication can improve patient-centred health outcomes among older patients: a rapid review. *BMC Health Serv Res* 2023, 23(1):886.
50) Courtwright AM, Abrams J, Robinson EM: The Role of a Hospital Ethics Consultation Service in Decision-Making for Unrepresented Patients. *J Bioeth Inq* 2017, 14(2):241-250.
51) Giannetta N, Sergi R, Villa G, Pennestrì F, Sala R, Mordacci R, Manara DF: Levels of Moral Distress among Health Care Professionals Working in Hospital and Community Settings: A Cross Sectional Study. *Healthcare (Basel)* 2021, 9(12).
52) Rights ACfEaH: ANA Position Statement: Nurses' Professional Responsibility to Promote Ethical Practice Environments. *OJIN: The Online Journal of Issues in Nursing* 2021, Vol. 28, No. 1.
53) Pinsky MR, Bedoya A, Bihorac A, Celi L, Churpek M, Economou-Zavlanos NJ, Elbers P, Saria S, Liu V, Lyons PG *et al*: Use of artificial intelligence in critical care: opportunities and obstacles. *Critical Care* 2024, 28(1):113.
54) Kon AA, Garcia M: Telemedicine as a tool to bring clinical ethics expertise to remote locations. *HEC Forum* 2015, 27(2):189-199.

DOI: https://doi.org/10.58904/2025/212