



RESEARCH ARTICLE

A CLINICAL AUDIT ON END-OF-LIFE CARE PRACTICES: AN EVALUATION AGAINST THE AIIMS POLICY GUIDELINES FOR EOLC IN CRITICAL CARE UNIT

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ABSTRACT

End-of-life care (EOLC) represents a critical and often overlooked aspect of healthcare that focuses on providing comfort and dignity to individuals nearing the end of their lives. A peaceful and dignified death is the right of every person with a life-limiting illness. A 'good death' can be an outcome of a holistic approach towards the patients, taking into account their wishes, cultural background, ethical considerations alongside symptom management. Despite the high death rate due to chronic terminal illnesses, India seemingly lacks the capacity to provide end-of-life care (EOLC). As per the Economist Intelligence Unit report in 2015 India ranks 67th out of 80 countries which were studied for quality of death. The major factors that act as a barrier for practicing EOLC in developing countries include failure to recognize EOLC as a requirement of public health, lack of related systematic data, and lack of a national-level policy. To top it off legal ambiguity further deters physicians from initiating EOLC discussions, resulting in the initiation and continuation of invasive life-sustaining procedures at end-of-life. However, the duty of care for the physician is bound not only by the national laws but also the principles of professional ethics (autonomy, non-maleficence, beneficence, and justice). The physician bears the duty to save a patient's life, but this duty does not mean continuing a potentially non-beneficial or harmful treatment which can further increase the suffering of the patient and their caregivers. This type of care goes beyond the traditional curative model, prioritizing symptom relief, pain management, and psychosocial support for both patients and their families. Despite the advancements in healthcare systems worldwide, the provision of quality EOLC remains still inadequate in our country India. Moreover, the issue of inadequate EOLC is particularly significant in our country because of growing burden of chronic diseases and terminal illnesses, such as cancer, neurological disorders, and heart disease. However, the challenges such as resource limitations, cultural barriers, and insufficient training for healthcare professionals are making these decisions further difficult. Hence the need for well-structured and compassionate end-of-life care has become even more urgent. Although there have been efforts to address these issues through national guidelines and institutional policies, there remains a significant gap between what is recommended and what is practiced. The All-India Institute of Medical Sciences (AIIMS), one of the leading healthcare institutions in India, has developed a comprehensive policy on End-of-Life Care. We have used this policy as a gold standard for making our EOLC decisions. (Annexure – 1) This policy addresses the issue in four parts: (i) recognition of potentially non-beneficial or harmful treatment by physicians, (ii) consensus among all caregivers on potentially non-beneficial or harmful treatment and initiation of the best supportive care pathway, (iii) initiation of EOLC pathways, and (iv) symptom management and ongoing supportive care until death. This policy outlines best practices in symptom management, referral to palliative care services, communication with patients and families, and the importance of cultural sensitivity and psychological support. However, the implementation and adherence to these guidelines require regular evaluation to ensure they are being effectively followed in clinical practice. This clinical audit aims to have a standardized protocol in our unit and to assess the extent to which EOLC practices at AIIMS align with the institution's established policy on EOLC at our centre. The audit specifically assessed key components such as futility criteria, consensus among treating physicians and the critical care team, agreement with family members regarding futility and documentation, types of EOLC decision and pre EOLC assessment process thereof. It also evaluated various end-of-life care (EOLC) decision-making processes, included no CPR, no intubation, no vasopressors, and no dialysis, no blood transfusion, no routine Labs, no higher antibiotics as well as compliance with documentation, of these parameters. Additionally, it reviewed checklist compliance for communication and initiation of end-of-life care. This audit aimed to identify areas where our policy was successfully implemented and those requiring improvement, contributing to the enhancement of EOLC quality at our centre. By systematically assessing the alignment between clinical practices and institutional policy, this audit intended to provide actionable recommendations for improving EOLC policies at our centre. Additionally, it may offer valuable insights for better application of EOLC in other healthcare settings across India.

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INTRODUCTION

End-of-life care (EOLC) represents a critical and often overlooked aspect of healthcare that focuses on providing

comfort and dignity to individuals nearing the end of their lives. A peaceful and dignified death is the right of every person with a life-limiting illness. A 'good death' can be an outcome of a holistic approach towards the patients, taking

into account their wishes, cultural background, ethical considerations alongside symptom management. Despite the high death rate due to chronic terminal illnesses, India seemingly lacks the capacity to provide end-of-life care (EOLC). As per the Economist Intelligence Unit report in 2015 India ranks 67th out of 80 countries which were studied for quality of death. The major factors that act as a barrier for practicing EOLC in developing countries include failure to recognize EOLC as a requirement of public health, lack of related systematic data, and lack of a national-level policy. To top it off legal ambiguity further deters physicians from initiating EOLC discussions, resulting in the initiation and continuation of invasive life-sustaining procedures at end-of-life. However, the duty of care for the physician is bound not only by the national laws but also the principles of professional ethics (autonomy, non-maleficence, beneficence, and justice). The physician bears the duty to save a patient's life, but this duty does not mean continuing a potentially non-beneficial or harmful treatment which can further increase the suffering of the patient and their caregivers. This type of care goes beyond the traditional curative model, prioritizing symptom relief, pain management, and psychosocial support for both patients and their families. Despite the advancements in healthcare systems worldwide, the provision of quality EOLC remains still inadequate in our country India. Moreover, the issue of inadequate EOLC is particularly significant in our country because of growing burden of chronic diseases and terminal illnesses, such as cancer, neurological disorders, and heart disease. However, the challenges such as resource limitations, cultural barriers, and insufficient training for healthcare professionals are making these decisions further difficult. Hence the need for well-structured and compassionate end-of-life care has become even more urgent. Although there have been efforts to address these issues through national guidelines and institutional policies, there remains a significant gap between what is recommended and what is practiced.

The All-India Institute of Medical Sciences (AIIMS), one of the leading healthcare institutions in India, has developed a comprehensive policy on End-of-Life Care. We have used this policy as a gold standard for making our EOLC decisions. (Annexure – 1). This policy addresses the issue in four parts: (i) recognition of potentially non-beneficial or harmful treatment by physicians, (ii) consensus among all caregivers on potentially non-beneficial or harmful treatment and initiation of the best supportive care pathway, (iii) initiation of EOLC pathways, and (iv) symptom management and ongoing supportive care until death. This policy outlines best practices in symptom management, referral to palliative care services, communication with patients and families, and the importance of cultural sensitivity and psychological support. However, the implementation and adherence to these guidelines require regular evaluation to ensure they are being effectively followed in clinical practice. This clinical audit aims to have a standardized protocol in our unit and to assess the extent to which EOLC practices at AIIMS align with the institution's established policy on EOLC at our centre. The audit specifically assessed key components such as futility criteria, consensus among treating physicians and the critical care team, agreement with family members regarding futility and documentation, types of EOLC decision and pre EOLC assessment process thereof. It also evaluated various end-of-life care (EOLC) decision-making processes, included no CPR, no intubation, no vasopressors, and no dialysis, no blood transfusion, no routine Labs, no higher antibiotics as well as

compliance with documentation, of these parameters. Additionally, it reviewed checklist compliance for communication and initiation of end-of-life care. This audit aimed to identify areas where our policy was successfully implemented and those requiring improvement, contributing to the enhancement of EOLC quality at our centre. By systematically assessing the alignment between clinical practices and institutional policy, this audit intended to provide actionable recommendations for improving EOLC policies at our centre. Additionally, it may offer valuable insights for better application of EOLC in other healthcare settings across India.

Keywords: Palliative Care, Futility of Treatment, Ethical Decision-Making, End-of-Life Care (EOLC), Do Not Resuscitate (DNR), Terminal Illness

Aims and objectives

This clinical audit aimed to standardize End-of-Life Care (EOLC) at Metro Hospital's critical care unit by implementing a comprehensive Standard Operating Procedure (SOP) based on AIIMS policy. It also assessed how well the SOP was integrated into practice to ensure consistent, high-quality care for terminally ill patients. The goal was to identify gaps, streamline processes, and enhance care with clear protocols.

Objectives

- Evaluate the Implementation of the SOP for EOLC:
- To assess the extent to which the new SOP, developed based on the AIIMS policy on EOLC, is being effectively implemented in clinical practice.
- To ensure that all patients who meet the criteria for EOLC are offered EOLC within the specified time frame.
- To identify areas of non-compliance or inconsistency in following the SOP and determine the reasons behind such gaps.

Assess Adherence to Standardized Processes:

- To evaluate futility criteria, consensus among the treating physicians and critical care team, consensus with the family members regarding futility and documentation of the same, types of EOLC decision making like no CPR, no Intubation, no vasopressors, no dialysis etc. as outlined in the SOP.
- To measure the compliance on documentation along with the checklist compliance for communication and initiation of end-of-life care.
- To identify any barriers to the successful implementation of the SOP and standardization of EOLC (e.g., resource constraints, lack of staff training, resistance to change, etc.).
- To analyse the challenges in maintaining consistency in care delivery and propose strategies to overcome these obstacles.

The audit aimed to facilitate the implementation of a standardized approach to end-of-life care at our hospital, resulting in more consistent and effective care for terminally ill patients, and providing a model that can be replicated by other healthcare institutions across India.

METHODS

Setting and Scope: The audit was conducted in a 71-bed critical care unit that catered to both medical and surgical patients. This unit accommodated a diverse patient population, including individuals who were critically ill, terminally ill, or suffering from life-limiting diseases. Patients in this unit often presented with complex conditions that could necessitate end-of-life care, making it an ideal setting for evaluating the effectiveness of and adherence to the AIIMS EOLC policies. The unit admitted patients from various medical and surgical specialties, including, but not limited to, neurology and trauma. The diversity of patient conditions provided a comprehensive perspective on the implementation of EOLC practices across different clinical scenarios.

Duration: The audit was conducted over a period of one year, from March 1, 2024, to March 1, 2025. This duration allowed for the collection of sufficient data to assess the implementation and impact of the Standard Operating Procedure (SOP) for End-of-Life Care (EOLC) at AIIMS. The audit evaluated practices throughout this period, offering insights into prevailing trends, challenges encountered, and opportunities for improvement in delivering consistent and compassionate EOLC.

Inclusion Criteria

- All adult patients over 18 years of age admitted to the intensive care unit that were eligible for EOLC.
- Patients Admitted to the Unit: All patients admitted to the 71-bed unit during the audit period (from March 1, 2024, to March 1, 2025) who were deemed to be terminally ill or had a life-limiting condition were included. This included both medical and surgical patients.
- Patients Receiving End-of-Life Care: Only patients receiving End-of-Life Care (EOLC) as defined by the AIIMS policy were included. This included those who were diagnosed with a terminal condition and were no longer receiving curative treatment but were being managed for comfort, symptom relief, and quality of life.

Exclusion Criteria

The criteria outlined below were applied to exclude certain patients from the clinical audit:

- Pregnant patients
- Patients < 18 years of age.
- Patients for whom consensus on the futility of care could not be reached among treating clinicians.
- Patients where the patient or a legally acceptable representative was not available or refused to give an informed written consent.

Data Collection: For this clinical audit, data was sourced from patient medical records with the collaboration of clinicians utilizing a structured case record form. (Annexure - 2) Subsequently, the data was organized into a spreadsheet using Microsoft Excel, with valuable assistance provided by Mr. Dheeraj, the department coordinator. The data collection for this audit involved gathering demographic details such as age, gender, diagnosis, and medical history of patients receiving EOLC. It included documenting the application of futility

criteria to track decisions regarding non-beneficial treatments and ensuring clinician consensus through evidence of collaborative decision-making with caregivers. Shared decision-making with families was recorded, emphasizing formal family meetings and communication checklists. Various types of EOLC decisions, including DNR, DNI, no vasopressor, no dialysis, no blood transfusion, no higher reserve antibiotics, and no routine lab testing, were documented thoroughly. The documentation process also involved initial assessments, family communication, decision-making, and specific care decisions. Quality of care and adherence to the Standard Operating Procedure (SOP) were evaluated through chart reviews and interviews with healthcare providers if required.

Standards: The standards for this audit were derived from an article published in the Indian Journal of Medical Research, titled "Institutional End-of-Life Care Policy for Inpatients at a Tertiary Care Centre in India: A Way Forward to Provide a System for a Dignified Death." This article served as the basis for developing a structured and compassionate approach to end-of-life care within the institution. Bhatnagar S, Biswas S, Kumar A, Gupta R, Sarma R, Yadav HP, Karthik AR, Agarwal A, Ratre BK, Sirohiya P. Institutional end-of-life care policy for inpatients at a tertiary care centre in India: A way forward to provide a system for a dignified death. *Indian J Med Res.* 2022 Feb; 155(2):232-242. doi: 10.4103/ijmr.IJMR_902_21. PMID: 35946200; PMCID: PMC9629530. (Annexure 3). To develop and refine the standard compliance, a pre-test was conducted using the medical records of 5 randomly selected patients. The medical records of these patients were reviewed to gain insight into how end-of-life care was delivered. Multiple potential variables relevant to the audit were identified for consideration, and expected compliance to standards was decided as mutually agreed upon by the auditors. The standard protocols assessed, and the expected compliance are described in Table 1.

Futility Criteria

- The audit assessed how frequently the futility criteria were applied when making decisions about the appropriateness of life-sustaining treatments. This included identifying instances where treatments were deemed non-beneficial or futile based on the patient's prognosis and clinical condition or whether the patient had been identified
- As being in the terminal stage of illness, with a life expectancy estimated in days to weeks, any condition, where clinicians predict a very low chance of meaningful survival and purposeful life, post-cardiac arrest status with poor neurological outcomes, brain-dead patients, who are not suitable for organ donation.
- Documentation of the decision-making process regarding futile care was reviewed to ensure compliance with the AIIMS policy.

Clinicians' Consensus: (Primary medical board)

- The audit assessed whether there was documented evidence of consensus with caregivers regarding the care plan, particularly in cases involving end-of-life decisions.
- As per the recommendations in the AIIMS protocols, a clinician not involved in the care of patient should be involved in the decision-making process. Though in our

policy two intensive care consultant having more than 5 years of experience are involved in decision making process and are part of primary medical board.

- Name of the doctors from the critical care department who are authorized to take part in constitution of PMB is attached in the audit with their qualification and experience (Attachment 1)

Shared Decision-Making with Family

- The audit assessed whether a formal family meeting had been conducted to communicate the prognosis and change in goals of care.
- It reviewed whether the discussion had taken place in a language familiar to the family, and whether the communication checklist had been completed.

Types of End-of-Life Care Decisions

- The audit will specifically evaluate the types of EOLC decisions documented in patient records. These may include:
 - Do Not Resuscitate (DNR) Orders
 - Do Not Intubate (DNI) Orders
 - No Vasopressor (No life-sustaining medications such as blood pressure drugs)
 - No Dialysis
 - No blood transfusion
 - No higher reserve antibiotics
 - No routine lab testing

Documentation of EOLC Processes

- One of the critical aspects of the audit will be the documentation of all EOLC processes.

Quality of Care and Adherence to SOP: The overall quality of care and adherence to the AIIMS SOP on EOLC were assessed through a combination of chart reviews, interviews with healthcare providers (doctors, nurses, palliative care specialists), and feedback from caregivers. Any deviations from the SOP or gaps in care were identified, and the reasons for these deviations were explored. A checklist was used to ensure that all required steps were followed for each patient receiving end-of-life care.

Data Analysis: All the data were collected with the assistance of doctors working at the bedside using a structured case record form. This data was then compiled into a master chart with the support of the department coordinator, Mr. Dheeraj. Data entry and analysis were carried out using Microsoft Excel. The collected data were analysed to evaluate how closely current practices aligned with the Standard Operating Procedure (SOP) and the AIIMS policy on End-of-Life Care (EOLC). Quantitative data, such as the number of patients who received Do Not Resuscitate (DNR) or Do Not Intubate (DNI) orders, were examined to identify patterns and trends. Qualitative data were also reviewed to explore barriers to effective implementation and to highlight any gaps in care delivery.

RESULTS

During the duration of the audit, out of a total of 1840 admissions and 264 deaths. Among all deaths 11% of patients

received EOLC management as per the defined protocols and policies. The baseline demographics of the patients included in the audit are described in Table 2. The mean age of patients was 74.2 ± 7.3 years, indicating that most individuals receiving end-of-life care were elderly. In terms of gender distribution, 16 patients (53.3%) were female and 14 (46.7%) were male, reflecting a relatively balanced representation. Patients were admitted under a range of specialties, with the highest proportion from neurosurgery (20%), followed by internal medicine (16.7%), neurology (16.7%), and pulmonology (13.3%). Other specialties included nephrology (10%), oncology (13.3%), gastroenterology (6.7%), and general surgery (3.3%), demonstrating the multidisciplinary nature of end-of-life care needs. The average duration between hospital admission and the decision to initiate end-of-life care was 7.3 ± 2.9 days, with a median duration of 6 days and a range from 1 to 17 days. This suggests that decisions regarding EOLC were typically made within the first week of hospitalisation for most patients. Regarding clinical characteristics, 5 patients (16.7%) had undergone cardiopulmonary resuscitation (CPR), 24 (80%) were either intubated or had a tracheostomy, 19 (63.3%) were on high-dose vasopressors, and 12 (40%) had irreversible neurological injury. The audit assessed compliance with standard End-of-Life Care (EOLC) protocols across five key domains as shown in Table 3.

Futility Criteria were largely well adhered to, with 100% of cases assessed for futility and terminal prognosis, and 96.7% having prognosis clearly documented. Only one instance of non-compliance was noted, resulting in a very low non-compliance rate of **0.83%**.

Clinicians' Consensus showed complete compliance, with documentation and dual sign-off by clinicians in all cases. The non-compliance rate for this domain was 0%, indicating strong adherence to protocol. In the domain of Shared Decision-Making with Family, all five criteria, including conducting family meetings, use of understandable language, and completion of communication checklists, were fully met across all cases, also resulting in 0% non-compliance.

The area of **Types of End-of-Life Care Decisions** showed variable adherence. While implementation of DNR and dialysis directives reached 100%, only 20% had DNI orders recorded, and 33.3% had documentation regarding withholding routine lab tests. Overall, this domain showed a non-compliance rate of **17.1%**, indicating the need for greater consistency in implementing specific EOLC decisions.

As described in Table-3, Futility Criteria demonstrated excellent performance, with a compliance rate of 99.17%, exceeding the expected benchmark of 95%, and achieving full adherence (100%) to protocol standards. Clinicians' Consensus and Shared Decision-Making with Family both achieved 100% compliance, meeting or exceeding the expected compliance rate of 95%, and perfectly aligning with standard expectations. In the domain of Types of End-of-Life Care Decisions, although the observed compliance was 73.3%, it surpassed the expected threshold of 50%. However, it still fell short of the full protocol adherence benchmark of 100%, suggesting room for improvement in consistent documentation of individual care decisions. Pre EOLC assessment compliance was 100%.

Overall, the audit revealed strong adherence in most areas but highlighted the need for targeted improvements in

documenting care-limiting decisions and strengthening adherence to standard operating procedures.

DISCUSSION

This clinical audit critically evaluated the implementation and adherence to End-of-Life Care (EOLC) practices at Metro Hospital's critical care unit, using the AIIMS EOLC policy as the gold standard. The findings provide valuable insight into how well the SOP was integrated into practice and where opportunities for enhancement remain.

Futility Criteria: The application of futility criteria was robust, with 100% of patients assessed for futility and terminal prognosis. A high compliance rate of 99.17% was observed, surpassing the expected benchmark of 95%, with only one instance of non-compliance noted, likely due to a documentation lapse rather than a clinical oversight. The majority of patients in whom futility was recognised were elderly (>70 years) with multiple comorbidities, including chronic cardiac, respiratory, renal, or neurological conditions. Most were admitted with acute-on-chronic deterioration and had persistent multi-organ dysfunction requiring maximal life support, such as high PEEP mechanical ventilation, vasopressors, and renal replacement therapy. Despite these intensive measures, prognosis remained poor, and futility was often recognised only after an average ICU stay of seven days, which may have delayed the timely transition to comfort-focused care.

This delay in recognising medical futility may have impacted not only clinical outcomes but also the psychosocial well-being of families and caregivers, who were often involved in emotionally challenging decision-making late in the disease course. Early identification of futility, guided by regular multidisciplinary team (MDT) discussions, could have facilitated timely family meetings, reduced unnecessary interventions, and enabled a smoother and more compassionate transition to end-of-life care. Proactive engagement with palliative care services at an earlier stage may thus enhance the quality of care and align treatment goals with patient values and preferences. Determining medical futility, however, is not without challenges. One major issue is the absence of universally accepted, objective criteria, leaving clinicians to rely on subjective clinical judgment. This can lead to variability in decision-making and hesitancy in labelling care as futile, particularly in complex or emotionally charged situations. Legal uncertainties, fear of family resistance, and cultural or religious influences further complicate these decisions. Clinicians may also be reluctant to initiate EOLC conversations due to concern over distressing families or the perceived finality of such discussions. These factors can delay appropriate care planning and prolong potentially non-beneficial interventions.

Key Recommendations for Improvement

To address these challenges and strengthen early and accurate recognition of futility, we recommend:

- To address the challenges in recognising and documenting medical futility, we recommend the development of both non-specific and specialty-specific objective futility criteria, aligned with AIIMS guidelines and regularly

updated based on emerging clinical evidence. Early futility assessment should be promoted using defined clinical indicators, such as SOFA scores >15, persistent multi-organ dysfunction (MODS) for more than 72 hours despite maximal therapy, Glasgow Coma Scale ≤ 3 with absent brainstem reflexes (neurological futility), refractory shock requiring escalating vasopressor support, and prolonged mechanical ventilation (>2–4 weeks) without signs of weaning. End-stage diseases with no prospect of meaningful recovery, such as advanced malignancies or irreversible neurological injuries, should also trigger early consideration of futility.

- Integration of clinical triggers or decision-support tools within the ICU electronic health record system to prompt evaluation for futility at appropriate stages.
- Mandatory multidisciplinary team (MDT) discussions, including intensivists, primary consultants, and palliative care specialists, for patients showing early signs of treatment resistance.
- Regular training for healthcare providers on recognising terminal stages of illness and documenting them appropriately will help eliminate residual lapses.
- Strengthening palliative care integration to facilitate timely withdrawal of non-beneficial interventions.

By standardising and supporting the process of recognising futility, the care team can ensure compassionate, patient-centred, and timely transitions to end-of-life care, reducing unnecessary interventions and emotional burden on families.

Clinicians' Consensus: Compliance in this domain was exemplary, with 100% adherence in consensus formation and 98.3% compliance in documentation. This reflects strong interdepartmental communication and collaboration among treating teams. According to the AIIMS EOLC policy, consensus must be obtained between the treating physician and an independent clinician. At our centre, this protocol was adapted to include the two senior intensive care physician as a key stakeholder in the decision-making process—an approach that ensured both clinical relevance and procedural rigour and in concurrence with the new simplified legal procedure recommended by ISCCM in April 2023. Although full compliance was achieved, the audit identified opportunities for further refinement in clinical workflow. One key area is the timing of futility recognition. In several cases, this recognition occurred relatively late in the patient's ICU course—on average after seven days of intensive care—which may have delayed the transition to comfort-focused care. Earlier multidisciplinary team (MDT) discussions, especially in high-risk or deteriorating patients, could facilitate proactive identification of medical futility, thereby reducing unnecessary interventions and emotional distress for families.

Recommendations

- Initiate MDT reviews for patients with high SOFA scores, persistent organ failure, or poor neurological prognosis, to support early consensus on futility.
- Encourage early palliative care team involvement concurrent with or immediately after futility determination to ensure timely comfort care transitions.
- Conduct regular training on documenting clinician consensus using structured templates that include all necessary components as per AIIMS guidelines.

- Monitor the time interval between futility recognition and initiation of palliative care, using this as a quality indicator for future audits.

In conclusion, the audit confirms that our practices fully complied with Step 2 of the AIIMS EOLC Guidelines, demonstrating effective implementation of futility recognition, physician consensus, and appropriate documentation. Looking ahead, fine-tuning the timing of these steps and embedding palliative care earlier into the care pathway can further elevate the quality of end-of-life care provided in our ICU.

Shared Decision-Making with Family: This domain achieved 100% compliance, with all key criteria being fully met, including the conduct of family meetings, use of understandable language, completion of communication checklists, and documentation of consent of patient if competent or surrogate if patient is not competent. This reflects strong alignment with Step 3 of the AIIMS EOLC Guidelines, which emphasises transparent, empathetic, and culturally sensitive communication with families during end-of-life care discussions. The audit confirmed that in all cases, futility decisions were clearly communicated to family members before de-escalation of non-beneficial treatments. Family meetings were formally conducted, and the discussions were consistently recorded in patient files. Families were informed that further aggressive treatment would not impact the clinical outcome. Following these discussions, 100% documentation of consent from the families were done. Indicating their understanding and agreement with the EOLC plan, after which comfort-focused care was promptly initiated.

In most cases, prognosis discussions were held within 24–48 hours of futility recognition, and communication was typically led by the primary physician, with ICU consultants or intensivists participating in complex or high-stakes situations. Discussions were generally clear, covering the clinical course, expected outcomes, and available care options. However, doctors primarily used general or descriptive criteria to explain futility. While this approach was well-intentioned, incorporating objective clinical markers—such as SOFA score >15, refractory shock, or irreversible neurological damage—could enhance the family's comprehension, especially for non-medical caregivers, and help validate the decision from a clinical standpoint.

Gaps Identified

- In some cases, **initial prognosis discussions were delayed beyond 48 hours**, often due to diagnostic uncertainty or awaiting the arrival of key family decision-makers.
- There was occasional **lack of standardised language**, leading to variable levels of family understanding and, at times, emotional resistance or denial.
- A few families **delayed acknowledgment**, holding on to hope for recovery, which prolonged treatment even after futility was recognised.

RECOMMENDATIONS

- Standardised protocol to ensure prognosis discussions are initiated within 24 hours of futility recognition,

incorporating early involvement of the palliative care team for communication and emotional support.

- Develop and implement a Futility Communication Checklist to ensure all key discussion points are covered with clarity, compassion, and consistency.
- Conduct regular training for ICU teams on breaking bad news, using structured models such as the SPIKES protocol, to enhance communication skills in emotionally sensitive situations.
- Encourage the presence of a senior nurse or second physician during family meetings to provide additional clarity, address emotional concerns, and support shared decision-making.
- Establish pathways to provide emotional and psychological support to families, particularly in cases where denial, grief, or distress may impair decision-making capacity.
- Introduce counselling support services or palliative care consultations for families struggling with acceptance, thereby improving satisfaction and alignment with patient-centred care goals.

In summary, while this domain demonstrated excellent compliance, the quality and timing of communication can be further improved through standardised tools, objective criteria, structured training, and psychosocial support systems. These steps will help foster deeper trust, reduce decision-making delays, and enhance family satisfaction with end-of-life care in the ICU setting.

Types of End-of-Life Care Decisions

This domain exhibited the greatest variability in adherence among all the audited domains. While Do Not Resuscitate (DNR) and dialysis directives were consistently documented (100%), other care-limiting decisions showed lower and inconsistent implementation—Do Not Intubate (DNI) was recorded in only 20% of applicable cases, withholding routine laboratory testing in 33.3%, and limitations on vasopressor escalation and antibiotics in 80% and 86.7% respectively. Overall, this domain achieved 73.3% compliance, which fell short of expected benchmark of 90%. The AIIMS policy places strong emphasis on comprehensive and clearly documented care-limiting decisions, tailored to the patient's prognosis and goals of care. The current audit findings indicate that while decisions were clinically made, not all components of EOLC were consistently implemented in all patients receiving palliative care.

The audit reviewed the types of EOLC decisions made and identified several key patterns:

- **DNR/DNI:** DNR orders were fully documented and aligned with family discussions. However, DNI orders were under-documented, as most of the patients included in the audit (80%) had been already intubated, before a decision to implement EOLC was made.
- **Vasopressors:** In most cases, there was a non-escalation strategy, where existing doses were maintained, but withdrawal was not practised. No cases of active withdrawal of vasopressors were documented, which is consistent with prevalent practice in India, where ethical, cultural, and legal hesitations limit such decisions.

- **Ventilation:** The approach was similar to vasopressors, with a non-escalation strategy for ventilatory support. There were no documented instances of terminal extubation, a practice rarely undertaken in Indian ICUs due to medico-legal ambiguity.
- **Dialysis:** Decisions were made to avoid initiating new dialysis in futile cases. Existing dialysis was continued unless deemed non-beneficial, with clear documentation in most cases.
- **Broad-Spectrum Antibiotics:** The audit observed continued use of antibiotics in many patients, reflecting concern for resistant infections. However, de-escalation was inconsistently documented, even when it was clinically justified.
- **Blood Transfusions:** These were administered only when needed for comfort or symptom relief, though the rationale was not always explicitly recorded in the patient's notes.
- **Routine Lab Investigations:** These were often withheld or limited in terminal cases, but formal documentation of this decision was lacking in most files, despite adherence to the principle of avoiding non-beneficial interventions.

The **predominant EOLC strategy** in the audit was non-escalation of aggressive interventions, rather than active withdrawal. This is consistent with the general Indian context, where terminal extubation or vasopressor withdrawal is **rarely practised** due to cultural, ethical, and legal considerations. Importantly, several components of palliative care—such as withholding labs, reducing interventions, and maintaining comfort—were **clinically implemented but not documented** clearly sometimes leading to an apparent reduction in compliance.

Pre-EOLC Assessment: This domain achieved 100% compliance, marking a significant institutional milestone. All patients undergoing EOLC were systematically assessed using the AIIMS-recommended EOLC initiation checklist, ensuring that decisions were evidence-based, ethically sound, and consistently applied. This compliance reflects a strong commitment to structured end-of-life care and sets a high standard for clinical governance. The consistent use of the checklist brought uniformity and clarity to the decision-making process. It ensured that all potentially reversible conditions were ruled out before transitioning to comfort-focused care. By facilitating structured, evidence-informed evaluations, the checklist reduced reliance on subjective judgment and helped clinicians reach multidisciplinary consensus. Importantly, it ensured that the involvement of competent patients or family surrogates was documented, and that family meetings were conducted and recorded, promoting transparency and legal defensibility. The checklist also mitigated ethical dilemmas by confirming that no steps were missed before the withdrawal or withholding of life-sustaining treatment, thereby standardising practice across clinicians and reducing variability in care delivery.

Challenges despite Full Compliance: Despite procedural compliance, certain practical challenges remain. Emotional distress among family members can still impede acceptance of EOLC decisions, particularly when hope for recovery persists. Even when consensus is reached and documented, delays in care transitions may occur due to family reluctance, disagreement among relatives, or institutional barriers. Furthermore, while the checklist provides a structured process,

communication gaps can arise if discussions are not conducted with sensitivity, clarity, and adequate psychosocial support.

Scope of future Improvements

Ratification by secondary medical board / the Advisory EOLC Committee: Challenges and Modifications

Although institutional protocol recommends ratification of EOLC decisions by the Advisory EOLC Committee, the audit revealed that this step was not consistently followed across all cases. This deviation was primarily attributed to logistical and clinical workflow challenges inherent to critical care settings, where decisions around futility and end-of-life care are often urgent and time-sensitive.

Key Challenges Identified

- **Logistical Constraints:** EOLC decisions frequently occurred at the bedside under pressing clinical circumstances. Routing every decision through the formal committee process was not always feasible without delaying care.
- **Clinical Clarity and Team-Family Agreement:** In many instances, the EOLC pathway was clearly indicated, and there was full consensus between the treating team and the patient's family, reducing the perceived need for additional external validation.
- **Selective Committee Involvement:** The Advisory EOLC Committee was consulted only in complex or contentious cases, particularly where disagreements arose within the clinical team or between the team and the family. This targeted approach was aimed at preserving timely, patient-centred decision-making without imposing unnecessary procedural burdens.

While this modified practice ensured agility, it also highlights the need for policy refinement to balance flexibility with oversight. The lack of committee ratification in most cases does not necessarily indicate poor practice, but rather calls for clarity in when and how committee involvement is mandated.

Recommendations

- **Define clear inclusion criteria** for cases requiring **mandatory EOLC committee ratification** (e.g., lack of consensus, unclear prognosis, and medico-legal concerns).
- **Introduce alternative ratification pathways**, such as:
 - **Virtual approvals** (e.g., via secure video or written e-consent from committee members)
 - **Pre-approved automatic ratification** for straightforward cases that meet pre-defined clinical criteria and demonstrate documented agreement among stakeholders.
- **Ensure thorough documentation** of the decision-making process in all cases, especially when committee ratification is bypassed. This safeguards transparency and legal accountability.
- **Periodic retrospective review** of non-ratified cases by the committee can help maintain quality oversight while not interfering with timely bedside decision-making.

This pragmatic modification aligns institutional policy with real-world clinical workflows while maintaining the integrity,

accountability, and patient-centred ethos of the AIIMS EOLC model. It promotes a balance between structured oversight and bedside autonomy, ensuring ethical and efficient end-of-life decision-making.

Compliance in Feedback Collection from patients' family

While feedback from families and caregivers is a critical component of evaluating the quality of End-of-Life Care (EOLC), this domain demonstrated low compliance during the audit. Despite achieving procedural excellence in medical decision-making, comfort care, and communication, the systematic collection of family feedback remained inconsistent and underutilised.

Analysis of Poor Compliance

- **Emotional Distress and Timing:** Families of terminally ill patients are often emotionally overwhelmed and eager to complete discharge or death-related formalities. In such moments, they may be reluctant or emotionally unprepared to reflect on the care experience. The grief response can act as a barrier to immediate feedback, especially when approached too soon after a loss.
- **Inhibitions among Healthcare Providers:** Doctors and nurses may feel it is inappropriate or emotionally burdensome to request feedback from grieving relatives. Some staff members may fear criticism, while others may avoid such conversations due to time constraints or workload pressures, particularly in high-volume ICUs.
- **Lack of a Neutral Feedback Facilitator:** Feedback collection is often attempted by the same clinical team that delivered care. This may inhibit honest responses from families due to concerns about causing offence or fearing that their input will not lead to meaningful change. The absence of a third-party facilitator reduces the psychological safety necessary for open feedback.

Suggestions for Improving Feedback Compliance

Adjust Timing and Introduce Feedback Early

- Avoid collecting feedback immediately after death; instead, offer families a chance to provide feedback during a follow-up call or visit within a few days when they are more emotionally settled.
- Introduce the concept of feedback early in the care journey, explaining that their experience will be respectfully reviewed to improve care for future patients.

Use a Neutral, Trained Feedback Collector

Assign a palliative care nurse, medical social worker, quality officer, or trained bereavement counsellor to collect feedback. This neutral approach encourages honesty and reduces discomfort for both staff and families.

Simplify and Diversify the Feedback Process

- Provide shorter, focused forms that concentrate on essential elements such as communication, symptom control, emotional support, and overall satisfaction.

- Offer digital feedback tools such as QR codes, secure links, or mobile forms that families can access at their convenience.
- Permit structured verbal interviews as an alternative to written feedback for those who prefer to speak rather than write.

Create a Supportive Environment

- Collect feedback in a quiet, private, and emotionally safe space. Ensure the person engaging the family is trained in empathetic communication and grief sensitivity.

Emphasise Anonymity and Purpose

- Reassure families that their responses are **anonymous** and solely intended for quality improvement, not individual assessment.
- Allow them to provide feedback via multiple channels (phone, email, digital form) and on their own time.

Link Feedback to Visible Change

Display visual cues—such as posters or brochures—explaining how past feedback led to tangible improvements in EOLC services. This validates the value of their input and increases the likelihood of participation.

Key Recommendations for Future Audits in End-of-Life Care (EOLC):

The current audit has provided valuable insights into the implementation of EOLC practices aligned with AIIMS guidelines. However, it also highlighted areas requiring further exploration and refinement. Future audits should adopt a more comprehensive, multidisciplinary approach to evaluate both the clinical processes and the experiential aspects of EOLC delivery. Firstly, future audits should aim to include a larger and more diverse sample across different departments and specialities, particularly medical, surgical, oncology, and neurology units, to capture the full spectrum of EOLC scenarios. Incorporating quantitative and qualitative data—including structured interviews with families and feedback from staff—will provide a deeper understanding of care quality and emotional impact. One of the key recommendations is the institution of a clinical ethics committee comprising of a dedicated End-of-Life Care (EOLC) or Palliative Care Committee within the hospital. This multidisciplinary body—comprising intensivists, primary consultants, palliative care specialists, ethicists, nurses, and hospital administrators—should oversee policy implementation, complex case reviews, documentation standards, and staff training. Such a committee would also be well-positioned to guide audit planning, ratify complex decisions, and support clinicians facing ethical dilemmas. Given the limitations in feedback collection observed in the current audit, future studies should design and validate a standardised family satisfaction tool that is easy to administer post-discharge or via follow-up calls. Engaging a neutral third party to conduct feedback will help ensure unbiased and honest responses.

Documentation quality remains a recurring challenge. Future audits should integrate a real-time digital tracking tool for EOLC processes—especially for care-limiting decisions, palliative care involvement, and family communication milestones—to improve data accuracy and compliance monitoring. Additionally, it is recommended that future audits

evaluate training efficacy for ICU staff on ethical decision-making, communication skills, and cultural sensitivity in EOLC. Linking audit findings to outcomes such as length of ICU stay, use of non-beneficial interventions, and family satisfaction would help assess the overall effectiveness of institutional EOLC practices. Lastly, integrating inter-institutional benchmarking and learning from best practices across centres can guide systemic improvements. These enhancements will not only improve care for terminally ill patients but also support families and healthcare professionals during one of the most sensitive phases of medical care. Ongoing education should focus on refining communication skills during EOLC discussions, especially regarding prognosis and goals of care. Role-play, case simulations, and debriefs can enhance comfort and confidence in handling sensitive conversations. To summarize

- **Audit Follow-Ups** – Maintain periodic audits not only to monitor checklist completion but also to assess the quality and timing of implementation and to identify evolving challenges in real-world practice.
- **Integration of Palliative Care Teams** – Ensure early and routine involvement of the palliative care team alongside the critical care team during the assessment phase. Their expertise can bridge communication gaps, address psychosocial distress, and enhance family support.
- **Family-Centred Communication Aids** – Introduce visual aids, simplified summaries, or multilingual materials to explain concepts like futility or prognosis more clearly to family members, reducing misunderstandings and improving acceptance.
- **Conduct monthly audits of EOLC documentation**, focusing specifically on completeness and consistency of care limitation directives.
- Encourage the use of **objective justification** for each care-limiting decision (e.g., “SOFA >15, irreversible neurological injury”), particularly in documentation, to reinforce transparency and support communication with families.

CONCLUSION

While 100% compliance with the checklist indicates excellent adherence to protocol, the human and emotional dimensions of EOLC require continuous attention. Addressing these softer yet critical aspects through education, team integration, and empathetic communication will further elevate the quality and consistency of EOLC delivery in the ICU. This clinical audit highlights the commendable strides made in implementing End-of-Life Care (EOLC) protocols in alignment with the AIIMS guidelines. Key domains such as futility recognition, clinician consensus, shared decision-making with families, and the use of structured checklists showed high levels of compliance, reflecting a strong institutional commitment to ethical and compassionate care. However, areas such as comprehensive documentation of all care-limiting decisions, feedback collection from families, and formal ratification by the EOLC committee revealed scope for improvement. The audit underscores the need for standardised documentation practices, early integration of palliative care, and the establishment of a dedicated EOLC or palliative care committee to provide oversight and support. Addressing emotional, logistical, and communication challenges through structured training, system-level refinements, and feedback mechanisms will further enhance the quality, consistency, and sensitivity of end-of-life care. Moving forward, continuous auditing, policy refinement, and a multidisciplinary approach will be essential to sustaining high standards and ensuring that patients receive dignified, person-centred care at the end of life.