

Review article:

Futility of Medical treatment

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Abstract

Medical and technological resources allow many patients affected by advanced diseases to receive more aggressive and expensive treatments than ever before. This wide range of available options can frequently lead to complex end-of-life decisions, such as when to start palliative care programs. Medical futility refers to interventions that are unlikely to produce any significant benefit for the patient. Medical futility is a daily problem, with significant ethical implications and concerns about the respect of the main ethics principles: beneficence, non-maleficence, patient's autonomy, and justice. Proceeding with futile treatment is neither in the best interests of the patient nor of the healthcare system. This paper examines the definition of futility, applications of the concept of medical futility, the complexities of management when care is considered futile.

Key words: Futility, end-of-life, medical ethics, withhold treatment, withdraw treatment.

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Introduction

The concept of futility has been debated for many years, and a precise definition remains elusive. This is not entirely unsurprising given the increasingly complex and evolving nature of modern medicine. Progressively more complex decisions are required when considering increasingly sophisticated diagnostic and therapeutic interventions. Allocating resources appropriately amongst a population whose expectations continue to increase raises a number of ethical issues not least of which are the difficulties encountered when consideration is being given to withholding "life-preserving" treatment.¹

The debate about when a life-sustaining medical treatment for a critically ill patient should be discontinued is linked to, but distinguishable from, the right-to-die debate. It is often stated in terms of who gets to decide. Can a physician decide to stop treatment, or does the decision belong to the patient, or the next of kin or proxy?²

Futility of end-of-life treatment can be difficult to define. This is due to several factors such as the

effect on the quality and length of life, financial costs, emotional costs and likelihood of success.³ The American Thoracic Society states that a treatment should be considered futile if it is highly unlikely that it will result in "meaningful survival" for the patient.

The multiorganization statement (entitled: An official ATS (American Thoracic Society) / AACN (American Association for Critical Care Nurses) / ACCP (American College of Chest Physicians) / ESICM (European Society for Intensive Care Medicine) / SCCM (Society of Critical Care) Policy Statement: Responding to Requests for Potentially Inappropriate Treatments in Intensive Care Units) provides examples of potentially inappropriate treatments; however, no clear definition is provided.⁴

The Society of Critical Care Medicine and four other major critical care organizations have recently endorsed a seven-step process to resolve disagreements about potentially inappropriate treatments and provided a clear definition of inappropriate interventions in the intensive care

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units (ICU) environment.⁵ ICU interventions should generally be considered inappropriate when there is no reasonable expectation that the patient will improve sufficiently to survive outside the acute care setting, or when there is no reasonable expectation that the patient's neurologic function will improve sufficiently to allow the patient to perceive the benefits of treatment. This definition should not be considered exhaustive; there will be cases in which life-prolonging interventions may reasonably be considered inappropriate even when the patient would survive outside the acute care setting with sufficient cognitive ability to perceive the benefits of treatment.⁵

Futility is still a much discussed topic, and as any clinician, ethics consultant, or ethics committee member knows, the concept has hardly left the clinic. It is still apparent in clinical decision making and is one of the most common reasons for an ethics consult or ethics committee review.⁶ A major debate in medical ethics is the topic of requesting futile medical care. This issue can threaten the physician-patient relationship.⁷ Dissipation of medical resources, elimination of or reduction in the opportunity for other patients in need of medical services, erosion of trust in the medical team, and the emergence of legal complexities for the medical team are only a few examples. Although the requests for medical futility compose only a small part of the health system in its totality, they can cause severe psychological and ethical tension for the patient, their family, and the medical team.⁸

This challenge also presents a major logistic problem as well: the allocation of health resources. For example, the ICU bed and the ventilator are aiding a patient whose imminent death is expected while concurrently, there is a patient in the hospital with a disease amenable to treatment (e.g. Guillain-Barré, a disease that paralyzes the muscles, including the respiratory muscles, for a while, but is reversible and curable) and there is no possibility of setting up another bed and another device. The ventilator is connected to a patient who will die within a few days while another patient is in dire need of the same device to regain his health.⁹

Clinicians mostly overestimate survival, and are not always accurate to the date of death. Many physicians in Saudi Arabia, for example, who are less experienced than American physicians in distinguishing end of life issues, are unwilling to declare their certainty of an impending death.¹⁰

In Saudi Arabia, for example, futile treatment is often requested by relatives.¹¹ The concept of "Cure-all", requested at times by the patient or his family, has led to extraordinary demands on the part of patients or substitutes (surrogate decision makers) to the effect that "anything possible will be done", which can create conflict and disagreements between the health care team and the patient or the relatives.¹²

Futile treatments and medical interventions should be considered in light of patients' outcome, and resource utilization in end-stage patients.^{13,14}

Case History

Case # 1

Mrs M is an 82-year-old Somali woman (living in London) with diabetes on hemodialysis; she had a right below-knee amputation six months previously and has been in hospital for a week with an ischemic left foot; she has evidence of sepsis with multiresistant organisms on blood culture. She is now hypotensive and confused. Hemodialysis is complicated by the loss of upper central venous access and poor blood flow rates on repeated femoral lines. The vascular surgeons have stated that no procedure is possible to improve blood flow to the left leg and that she is too unwell even for an amputation. A discussion is held with her family about Mrs M's poor prognosis and inevitable death. The family state that they want full treatment as demanded by their religion and that 'Allah decides when death happens'. Two days later, the femoral line clots. A further meeting is held with the family; it is explained that it would be futile to attempt another femoral line insertion, and that attempting to do so could be very uncomfortable and distressing for Mrs M. Subsequently, a family member phones the hospital patient affairs department and states that if their mother is not put back on to dialysis, they will contact Somali radio and accuse the hospital of racism. Following this, the renal team elects to maintain Mrs M on dialysis after further femoral line insertion. Over the next two weeks, Mrs M is maintained on hemodialysis, intravenous antibiotics and inotropes. She eventually has a cardiac arrest during dialysis and dies after an extended attempt of resuscitation.¹⁵

This case history illustrates the potential conflicts that emerge when considering end-of-life management for patients from minority ethnic groups in a Western healthcare system that is dominated by the principles of patient autonomy, beneficence, non-maleficence and avoiding futile

care. The outcome of this case history was far from ideal from the viewpoint of both the patient (inappropriate prolongation of dying, pain and discomfort from repeated femoral line insertions and dialysis attempts) and society (inappropriate use of limited healthcare resources).^{15,16}

Case # 2

A well-known example of futile cases from the USA is the case of a baby, widely referred to as “baby K” who was born in Virginia on October 30, 1992, and had been diagnosed prenatally as having anencephaly. The mother, who believed that her baby was the son of the (God moon)!!, insisted that life support is continued. The physicians believed that ventilator support was not warranted as the baby would never recover consciousness, and sought legal authority in the federal court to forgo it. The court ordered continuation of ventilation and resuscitation as the white mother of the baby requested. “Baby K” continued to receive high-quality medical care and survived for two and a half years before succumbing to an infection. The tax payers lost millions of dollars on futile treatment.

Islamic views

This is a subject of great dispute, even among Islamic scholars. Some actively do not advocate treatment if it is to merely prolong the final stages of life. The Qur’an states that death does not happen except by God’s permission. Life is a divine trust and cannot be terminated by any form of active or passive human intervention, as its term is fixed by an unalterable divine decree. The Qur’an encourages the recognition of one’s own limits. The ethical rule ‘No harm shall be inflicted or reciprocated in Islam’ expounded by Prophet Muhammad ﷺ has been evoked by Muslim jurists to allow withdrawal of futile treatment after consultation with patient, family and others involved.^{17,18}

Decisions about aggressive invasive treatment to extend life are jointly made by all associated with the patient—including religious leaders. Withdrawal of life-sustaining treatments, when considered futile, is seen as allowing death to take its natural course; delaying the inevitable death is neither in the patient’s nor in the public’s best interests because of distribution of healthcare and financial resource.¹⁵

Despite these clear Islamic teachings, Muslims believe in the reward they would be getting for enduring the suffering of the disease. Some Muslims strongly believe in God’s miraculous

cures and that it is within God’s power to heal and cure even if the health care workers believe the case is futile or hopeless.¹⁹

Christian and Muslim patients and families may provide religious justifications for insisting on aggressive medical treatment at the end of life. Brett and Jersild consider that there are four commonly invoked reasons: (1) hope for a miracle, (2) refusal to give up on the God of faith, (3) a conviction that every moment of life is a gift from God and is worth preserving at any cost, and (4) a belief that suffering can have redemptive value. For each of these 4 reasons, however, there are alternative Christian interpretations that point in the direction of limiting medical intervention under certain circumstances.²⁰ Although these points were raised from a Christian perspective, they may be useful for physicians dealing with Muslims as well.²¹ However Muslims should not cling to life at any cost, as death is considered a passage to eternal life.

For Muslims, treatment can be withheld in the case of a terminal illness such as widespread metastatic cancer. However, reversible illnesses should normally be treated (e.g. pneumonia), whereas terminal manifestations of an illness should not.^{17, 22}

With respect to suffering, Muslims also hold that it may have redemptive value. Moreover, relief of suffering, if it does not conflict with the preservation of life, is a duty of Muslim patients and physicians.²³

When clinicians believe that an intervention is medically inappropriate or inhumane, they are not necessarily obligated to provide it simply because it is demanded on religious grounds. Instead, clinicians -preferably assisted by cleric - should discuss alternative religious interpretations with the patient or family, and should attempt to reach a consensus on the appropriate limits to life-sustaining treatment.²⁰ Some words are emotionally disturbing and detract from a rational discussion. Rather than referring to the patient’s continued treatment as being futile — a word that implies that the patient himself is no longer useful — doctors can speak about the appropriateness of his care, which is more objective and considers what is in his best interest.²⁴

Relatives of Muslim patients, and occasionally physicians also, may come up with arguments similar to those outlined by Brett and Jersild to justify futile therapy. Therefore, their recommended approach and proposed counterarguments may be

applicable.²¹

Fortunately Muslims believe all healing comes ultimately from God and recognize that no cure is possible except by God's will. Although denying the possibility of a miracle is a sin and may be an expression of disbelief in God's power and sovereignty for Muslims, praying for a miracle does not obligate Muslims to demand treatment if an expert has deemed it of no benefit.²³

Resource utilization and outcomes in gravely ill patients must be observed. Futile treatments and medical interventions must be considered in light of outcomes. According to Islam, the physician needs to be certain of the inevitability of the impending death or else life should be sustained.¹⁷

Conclusion

Medical futility is a term used to describe medical interventions that are expected to result in little

or no benefit to a patient. Some Muslims strongly believe in God's miraculous cures even if the physicians believe the case is futile or hopeless. In health service settings, any action that is not beneficial to the patient based on narrative or rational and empirical evidence is unacceptable and the patient and service providers need to cease pursuing it. Accordingly, since medical futility is not beneficial to the patient, it is inconsistent with the two principles of beneficence and non-maleficence and is, as such, wrong. The patient-centered care, based on physician-patient communication, seems to be the best approach to this problem, even with a patient with advanced heart failure or metastatic carcinoma.

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