

Complex Decision in Oncology: Addressing Overtreatment and Undertreatment in Elderly Cancer Patients

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ABSTRACT

Modern medicine, despite its numerous benefits, often places oncologists in complex clinical scenarios. These situations require intricate choices to ensure patients receive optimal treatment. Advanced cancer patients, especially in borderline situations of expected benefit or increased risk of complications, face unique challenges [1]. Overtreatment and undertreatment represent the two extremes of the therapeutic spectrum, both of which signify suboptimal management of cancer patients. These concepts vary significantly across different medical disciplines, healthcare providers, and patients, as there is no universally accepted definition [2]. Oncologists undertake complex decision-making processes following detailed discussions with patients and their families, aiming to find the optimal balance in the therapeutic strategy. The question arises: Is it appropriate to recommend a new line of treatment for all cancer patients in the same manner, including elderly advanced cancer patients with comorbidities? As a palliative medicine specialist working in a government hospital in a developing country, when I consult with elderly advanced cancer patients who are resistant to the first-line available treatment, a primary concern for both patients and their relatives is whether to initiate a new, costly treatment with potentially unknown or limited efficacy, as recommended by the oncologist. From an ethical perspective, in some cases, the recommended treatment by oncologists may not be appropriate. This can be evaluated by considering the four fundamental principles of ethics: autonomy, beneficence, non-maleficence, and justice.

Autonomy emphasizes the patient's right to make informed decisions about their own healthcare. This principle requires oncologists to provide comprehensive information about the potential benefits and risks of treatments, ensuring that patients can make choices aligned with their values and preferences. However, respecting autonomy can be challenging when patients or their families have unrealistic expectations about the outcomes of treatment.

Beneficence involves acting in the best interest of the patient by providing treatments that are likely to benefit them. In the context of advanced cancer, this means carefully weighing the potential benefits of a new treatment against its risks and side effects.



The goal is to enhance the patient's quality of life, not just to extend it.

Non-maleficence, or “do no harm,” requires oncologists to avoid treatments that could cause unnecessary harm or suffering. This principle is particularly relevant in geriatric oncology, where the risks of treatment-related complications are higher. Differentiating between beneficence and non-maleficence in elderly patients can be challenging, as the line between beneficial and harmful interventions is often blurred.

Justice involves ensuring fair and equitable access to healthcare resources. This principle is crucial in settings with limited resources, where the cost of new treatments can be prohibitive. Oncologists must consider the broader implications of their recommendations, including the financial burden on patients and their families and the allocation of healthcare resources.

As human beings, driven by the tendency to survive and be cured, patients usually want to try all considered treatment options. However, decision-making is not easy due to the numerous physical and emotional challenges associated with a life-threatening illness. Moreover, they must manage the financial burden in the face of prognostic uncertainty. Occasionally, differentiating between beneficence and non-maleficence in geriatric oncology patients presents a significant challenge. Traditionally, elderly cancer patients are recognized as a vulnerable oncologic group who are susceptible to ‘overtreatment,’ which carries a high risk of complications or toxicity, and ‘undertreatment,’ where they do not receive appropriate treatment due to concerns (from either the oncologist or the patients themselves) about potential complications [3,4]. Consequently, it seems that using a tool for geriatric assessment, such as the Comprehensive Geriatric Assessment (CGA), may play a crucial role in making treatment decisions. These decisions include evaluating cognitive status, affective status, mobility, functional status, and nutritional adequacy [5].

Furthermore, the presence of significant comorbidities is an important issue in the context of antineoplastic treatment, as it affects both the patient's disease progression and the selection of antineoplastic therapy [6,7]. Although there is no gold standard tool for comorbidity assessment, the Charlson Comorbidity Index (CCI) or its variations, which are used to determine survival rates in patients with multiple comorbidities, are the most frequently utilized in

clinical studies [8].

Beyond patient-specific factors, there are additional contributing factors related to the oncologist, including age, level of experience, and familiarity with palliative medicine. A prior systematic review demonstrated that younger and less experienced oncologists are more predisposed to continue palliative antineoplastic therapy, which may interfere with the quality of life of patients [9]. This is due to decisions being based on guidelines that primarily include younger patients with few comorbidities and excellent performance status [10, 11]. Moreover, physicians without specialized expertise in palliative medicine are more prone to making aggressive decisions regarding end-of-life care [12]. Previous clinical trials suggest that the early integration of palliative care services into oncology treatment significantly enhances symptom management, elevates patient and caregiver satisfaction, improves overall quality of life, reduces healthcare system and patient costs, and minimizes the intensity of end-of-life interventions [13]. Additionally, early consultation with palliative care services allows patients to undergo extended and more intensive oncology treatments without significantly compromising their quality of life. Therefore, the early integration of palliative care alongside oncologic treatment ensures optimal therapeutic outcomes and mitigates the risks of both overtreatment and undertreatment [1].

It is crucial to emphasize that, practically, decision-making in elderly patients with co-morbidities, aimed at balancing adequate treatment and harm avoidance, is inherently complex. Therefore, in addition to general assessments, individualized evaluations and targeted recommendations that consider comprehensive aspects of the quality of life for both patients and their families may offer a more effective approach. Furthermore, early integration of palliative care services will facilitate decision-making in these complex situations.

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