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Review

Futility: Clinical decisions at the end-of-life in women with ovarian cancer

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Abstract

Objective. The purpose of this article is to provide a review of the clinical meaning of futility, discuss current normative uses of futility assessments and propose guidelines for clinicians to use in dialogue regarding treatment decisions for patients with advanced ovarian cancers.

Methods. We performed a MEDLINE literature search of relevant clinical articles for this review that discussed futility and the application to women with ovarian cancer.

Results. Medical futility refers to treatments that serve no physiologic, quantitative or qualitative meaningful purpose. Despite the growth in options focused on symptom management rather than disease eradication, including hospice programs and the more recent development of palliative care programs, there is evidence that many patients continue to receive aggressive interventions, including chemotherapy, until days before their death. While the legal and moral acceptability of treatment limitation is well established, clarity in establishing goals of care, timing of the transition from cure to palliation and communication of specific decisions to withhold further aggressive interventions remain problematic for both patients and clinicians.

Conclusions. There continues to be a distinct need for both better understanding of the dynamics of patient choice and increased education of physicians in addressing end-of-life care planning. It is essential that we continue to test specific communication and supportive interventions that will improve our ability to help patients avoid the burden of futile therapy while maintaining hope.

Keywords: End-of-life; Futility; Ovarian cancer

Contents

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Introduction

"Futility" is a label that began to appear in medical literature in the late 1980s [1]. It was used to refer to treatments that clinicians believed served no meaningful purpose. The growing use of the term was prompted by several different concerns: the increasing incidence of requests from patients and families for treatments that the clinician viewed as ineffective, persistent ambivalence and uncertainty among clinicians about decisions to withhold or withdraw aggressive treatment, and concerns about the cost-effectiveness of aggressive and expensive treatments for dying patients [2]. Early analyses of the meaning and ethical implications of judgments of futility focused on cardiopulmonary resuscitation and use of critical care therapeutics, such as mechanical ventilation. Concerns about offers of or demands for ineffective interventions, however, are equally relevant in oncology.

Discussion of futility takes place within the context of norms establishing and limiting the obligation to provide or withhold medical treatment. In the latter half of the 20th century, societal, legal and medical norms gradually evolved to include recognition that there are moral and clinically appropriate reasons to limit the provision of available interventions. These include any situation in which a competent adult refuses initiation or continuation of treatment or in which an available treatment will be ineffective in promoting the patient's goals [3,4]. With acceptance of this standard, attention shifted to focus more on the processes surrounding decision making about treatment limitations and barriers to providing quality care at the end-of-life [5].

The change in norms about treatment limitations was fueled by two developments. First was the increasing availability of very aggressive, burdensome and expensive technologies that delayed death for short periods of time but were unable to offer cure or reverse pathological processes. The second was the marked shift from a paternalistic decision mode to a consumer-driven, patient autonomy model. Passage of advance directive legislation in most states, establishing a legal mechanism to assure respect for decisions to limit the use of life-sustaining treatment in terminal states, reflects the widespread acceptance of these norms. The purpose of this article is to provide a review of the moral and clinical meaning of futility, discuss current normative uses of futility assessments and propose guidelines for clinicians to use in dialogue regarding treatment decisions for patients with advanced ovarian cancer.

Current futility standards

Lack of clarity in the meaning of the term "futile" has contributed to difficulty in analysis of the moral status of requests for ineffective interventions. "Physiologic futility" refers to the inability of the proposed intervention to achieve the biologic result intended. For example, attempting dialysis in a patient who has refractory hypotension will not result in electrolyte correction or filtration. Similarly, administering a chemotherapeutic agent for a known chemoresistant tumor will not halt growth or promote shrinkage. A proposed treatment may also be futile in that, while it may produce some intended physiologic change, such as maintaining respiration or correcting electrolyte imbalance, it will not alter the duration of survival because it cannot affect the processes leading to death. Some have referred to this as "quantitative futility" [6]. Similarly, the term "qualitative futility" has been used to describe the inability of an intervention to achieve a desired quality of life goal, although the intervention might be successful in maintaining or even extending survival [7].

The meaning of the term futility has important moral implications. The ethical principles of autonomy, beneficence and nonmaleficence have long been accepted as providing a useful framework for analysis of moral problems in medicine [8–10]. Autonomy directs us to respect the choices, values and life plans of patients and generates the requirements for informed consent. Beneficence is particularly directive for health professionals in grounding our fundamental duties to promote the good or well-being of patients. Nonmaleficence, the duty to refrain from harm, reflected in the Hippocratic Oath, is thought to be the most stringent or exception less. Each of these will have different implications for futility cases depending on the sense of the term.

Requests for interventions that are physiologically futile are the most straightforward and there is relatively strong consensus about ethical implications. While autonomy establishes the right to pursue one's goals without interference, it does not obligate others to provide whatever means of achieving those goals are desired. Thus, while autonomous individuals have an almost absolute right to refuse offered interventions, autonomy, in itself, does not establish any basis for claiming a right to be provided with a desired treatment. If a proposed intervention cannot produce the intended physiologic effect (e.g. prolongation of quantity or quality of life with chemotherapy) and is likely to inflict physiologic harm (e.g. neutropenic sepsis), the principle of nonmaleficence not only permits the physician to withhold the requested treatment, it may also obligate him/her to do so if the harms are certain and significant. This reasoning, most often applied to requests for resuscitation attempts, undermines position statements of professional societies and institutional policies developed to guide physicians in responding to such requests [11,12].

Unfortunately, there is far less clarity in the analysis of requests for therapy that the physician believes to be futile in either of the other two senses. An available therapy may be thought to be *quantitatively* futile when there is no evidence that it prolongs survival beyond a few days or weeks at most, and yet patients or families may insist on continuation of the therapy. A common example of this is