The Exercise of Autonomy by Older Cancer Patients in Palliative Care: The Biotechnoscientific and Biopolitical Paradigms and the Bioethics of Protection

Márcio Niemeyer-Guimarães¹,² and Fermin Roland Schramm¹

¹Graduate Program in Bioethics, Applied Ethics and Public Health (PPGBIOS), National School of Public Health, Oswaldo Cruz Foundation (Fiocruz), Rio de Janeiro, Brazil. ²Hospital Federal dos Servidores do Estado, Ministry of Health, Rio de Janeiro, Brazil.

ABSTRACT: Toward the end of life, older cancer patients with terminal illness often prefer palliative over life-extending care and also prefer to die at home. However, care planning is not always consistent with patients’ preferences. In this article, discussions will be centered on patients’ autonomy of exercising control over their bodies within the current biotechnoscientific paradigm and in the context of population aging. More specifically, the biopolitical strategy of medicine in the context of hospital-centered health care control and of the frail condition of cancer patients in the intensive care unit will be considered in terms of the bioethics of protection. This ethical principle may provide support to these patients by ensuring that they receive appropriate treatment of pain and other physical, psychosocial, and spiritual problems in an attempt to focus attention on the values of the ill person rather than limiting it to the illness.

KEYWORDS: aged, terminally ill, palliative care, personal autonomy, biotechnoscience, bioethics of protection

Introduction

Population aging is progressing rapidly and poses a serious challenge to health policy-makers, as increased life expectancy has led to an increased incidence of chronic noncommunicable diseases. In the case of cancer, the number of new cases is expected to rise by approximately 70% over the next 2 decades. However, significant biotechnological advances have opened new avenues for an early detection and treatment intervention, improving patients’ quality of life, especially when such care is considered and discussed with patients and families aiming to improve patients’ quality of life, especially when such care is likely to be provided in an intensive care setting.

This epidemiologic transition has also resulted in a change in patient flow in the health system. More patients can be admitted to hospitals that provide complex care, and particularly to the intensive care unit (ICU). Therefore, a critical reappraisal of the criteria for ICU admission of critically ill cancer patients is in order. Ill and frail older cancer patients require a careful evaluation of the potentially complex interactions of their condition with acute complications, tumor stage, and likely prognosis, and particularly with their personal values and preferences. Thus, palliative care should be considered and discussed with patients and families aiming to improve patients’ quality of life, especially when such care is likely to be provided in an intensive care setting.

The biotechnoscientific paradigm has certainly entailed a change in the epidemiologic profile for chronic noncommunicable diseases and prompted discussions about the patient’s personal autonomy and bodily self-determination. However, modern health services are generally oriented toward curative care, thereby failing to address concerns about the circumstances under which intensive care is applicable or whether there is room for palliative care, in an attempt to focus attention on the values of the ill person rather than limiting it to the illness.

The interaction between biopower/biopolitics and end-of-life care brings about bioethical issues. There remain open questions as to what extent patients’ autonomy of exercising control of their own bodies, their wishes, or what is regarded as “reasonable” in terminal care can be used for real-world decision making. This reopens the discussion of the need to change the traditional Hippocratic ethical paradigm, which is considered insufficient to deal with the extreme situations of current medical practice and confrontation with death and finitude. In particular, this raises the question of whether bioethics would be able to analyze the morality of practices in the context of biotechnoscience.

Issues related to the end of life and the limitations of supportive care for terminally ill cancer patients are still neglected due to the strong influence of medical education based on the principles of the traditional Hippocratic ethics and on the extensive training for a technicist approach to illness and the body. This can be understood as an exercise of biopower (the subjugation of bodies) whereby biopolitics is put into effect in a context of health care control and excessive medicalization in a hospital-centered system whose focus remains on disease control and cure.

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CORRESPONDING AUTHOR: Márcio Niemeyer-Guimarães, Palliative Care Committee, HFSE-MS, Rua Sacadura Cabral 178, 20.221-903, Sala, 434 Rio de Janeiro / RJ, Brazil. Email: niemarcio@gmail.com

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It is therefore of utmost importance that patients’ autonomy over their bodies be discussed within the current biotechnoscientific paradigm because a significant number of in-hospital deaths occur in the ICU.6–8 Recognizing that ill and frail older cancer patients are vulnerable, discussing protective measures and minimizing the risk of harm to patients with limited autonomy are important topics that constitute the kernel of contemporary moral debate, and hence the priority given to the exercise of personal autonomy in difficult situations involving decisions that might irreversibly and substantially affect the quality of living and dying of morally competent individuals.9

In this article, discussions will be centered on patients’ autonomy of exercising control over their bodies in the field of biomedical practices. More specifically, the biopolitical strategy of medicine in the context of hospital-centered health care control and of the frail condition of cancer patients in the ICU, which makes it imperative to address the issue of palliative care in an era of care based on patient’s values and preferences, will be considered in terms of the bioethics of protection.

Discussion

The morality of biotechnoscience

Biotechnoscience aims to transform living beings and life processes based on their health needs and desires, promoting quality of life by enhancing the well-being of an individual or a population.10 Technical and scientific developments have allowed disease control, cure, and/or cessation of suffering. However, the controversy over “interventions in the body” has also triggered a discussion on the morality of human actions in the field of biotechnoscience.

Technological advances in biomedicine and the development of invasive and noninvasive devices for life-sustaining care have undoubtedly provided benefits by optimizing disease control. However, they must add some value, be properly indicated, and/or be applied according to the disease stage. That is, the proposed benefits must outweigh the losses in terms of promoting a person’s quality of life. Once the potential benefits have been checked, ethics should permeate the use of knowledge and the path to be followed in the search for well-being, whereas moral shortcomings should not prevent institutions from acting effectively and coherently.11

In the light of bioethics, the scientific ideal of episteme (the conscious use of scientific knowledge and methods to promote physical, mental, and social well-being) should meet the desired ethical principles of beneficence, nonmaleficence, equity, precaution, responsibility, justice, and protection—ie, to identify biotechnoscience as a source with the potential to positively affect health and, consequently, quality of life. In short, scientific progress should not be curtailed—but it is imperative to take into account the best interests of the person, with particular emphasis on human dignity.12

On the context of biopolitics

Biopolitics is a form of intervention or exercise of power over people’s lives with the purpose of controlling the health of bodies. Biopolitics is linked to biopower, ie, power exercised at the level of subjects and also of populations.13 In particular, the biopolitics of the human species is concerned with the populations and their demographic and endemic problems, including the form, nature, extent, and intensity of diseases (incidence and prevalence), where medicine plays a role by coordinating medical care, centralizing information, and standardizing knowledge.14

Foucault described the “statization of the biological” (classical theory of sovereignty), in which the right to “foster life” or “let die” belongs to the State; it is the power to take life or allow to live in a care perspective.14,15 It is in such philosophical and political debate that we can perceive the exercise of (bio)power over the lives of citizens through the development of technologies and the control that is exercised over them.16–18

In this context, the philosopher Giorgio Agamben19 suggests the resemantization of the Greek word zoe from “life” into “bare life,” characterizing the existential condition, ie, life that is abandoned and threatened by biopolitics. By addressing these concepts of life, 2 ethical principles may be confronted in a moral paradigm: the sanctity of life and the quality of life. They delineate the field of moral conflicts faced by bioethics: The first is based on the intrinsic finitude of human existence or divine plan, with no attempted opposition, and the second is based on the legitimacy of interventions to reduce avoidable suffering and promote well-being.20

The issue of autonomy

Autonomy implies that individuals are capable of self-government; they are able to review their possibilities and understand their rights and duties without internal or external constraints.21 With the advent of medical technology in the 20th century, medical practice has gradually changed to meet patients’ needs. However, ill and frail older cancer patients continue to receive aggressive end-of-life curative treatment despite evidence that such high-intensity treatments do not improve their quality of life or outcome.22 Actually, an increasing number of in-hospital deaths have occurred in the ICU, even though most patients have expressed that they would prefer to die at home.23

Factors prompting attention to the debate involving end-of-life decisions and how to die (well) include the recognition that “doing everything possible to prolong life”—such as ICU admission, invasive procedures, radiation therapy, and chemotherapy for terminally ill cancer patients—is not always appropriate or desirable.24 Because attention is focused on the disease, a relationship is established with the illness rather than with the ill person. In this relationship, the patient is a passive, uninformed recipient rather than an active, informed individual, and the right to self-determination becomes a “right to be represented” in end-of-life decisions.
Physicians often assume a position of power and control whereby they hold themselves responsible for the patient’s illness, acting with authority to determine the best interests of the patient. This temporary abdication or denudation of power until “everything is resolved,” ie, for the period during which one is a patient, may be interpreted as an act of deliberately “vulnerabilizing” the patient. This gives patients little or no choice over the matter, rendering them vulnerable to real pain and/or suffering. This is to violate a person’s autonomy—treating that person merely as a means, in accordance with others’ goals without regard to that person’s own goals.

**The palliative care perspective**

Palliative care is an approach that helps terminally ill patients and their families deal with the uncertainties that are part of progressive disease. Although palliative care is recognized as a distinct medical specialty in many countries, varying slightly in the structure of programs according to local health policies, it remains underdeveloped in most of the world, especially in low-to-middle income countries.

Palliative care aims to improve the quality of life of patients and their families by relieving patient suffering and managing pain and other physical, psychosocial, and spiritual problems. Although patients are more likely to receive palliative care as they get closer to death, it is not intended to either anticipate or postpone death. The World Health Organization recommends the provision of palliative care as a support system that helps patients live as actively as possible until death and families feel assisted throughout the process of illness and grieving. Therefore, it should be initiated as early as possible to positively influence the disease course.

There may be some variation in end-of-life-practices between and within countries based on their different cultural backgrounds and how traditional religious or atheistic views deal with the end of life. Although death-avoiding cultures persist in many countries, particularly in some low-to-middle income countries, evidence supports benefits from standardized, goal-related communication and ICU-based palliative care practices. Therefore, ICU providers should embrace proactive goal-related communication with patients and peers, as our duty in palliative care is not to find new ethics but to act simply ethically.

Predictions of a considerable increase in the world population aged 60 years or older may similarly lead to an increased number of elderly people with conditions that will need specialized care, which may have a more dramatic impact on countries whose economy is characterized by low to medium income. In the palliative care model, studies have shown a reduction of 30% in emergency department visits and 28% in hospital admissions, with spending per patient/per month being reduced by $180,000 compared with a curative care model. In another study, patients receiving palliative care vs standard oncologic care were less depressed (58%) and received less aggressive end-of-life care (39%), and median survival was longer by several months. In the United States, 80% of the citizens would prefer less aggressive end-of-life care, avoiding hospitalization particularly during the terminal phase of illness, and would also prefer to die at home, avoiding ICU admission. However, despite expressing their willingness to die at home, approximately 55% of patients are deprived of their autonomy and actually die in the hospital.

Despite conventional complex treatments and biotechnological resources available in ICUs, the establishment of appropriate palliative care is still required in low-to-middle income countries. It should be delivered by health care providers who are trained in medical ethics to respect the patient’s will and made available to everyone who faces a life-threatening illness, regardless of income. However, in almost all cases of older cancer patients admitted to the ICU in middle-income countries, such as Brazil, a more comprehensive health promotion approach within palliative care is not usually offered to patients. In fact, little is known about end-of-life care decisions made from ICU admission to death. A study of adult cancer patients conducted in Brazil reported that such decisions are made on average within 4 days (interquartile range, 2–10 days) of ICU admission. In this setting, once end-of-life care decisions are made, patients are rarely discharged from the ICU. Do-not-resuscitate (DNR) orders and orders to withhold life-sustaining and life-prolonging treatments are more common than orders to withdraw treatment. Therapeutic measures, such as cardiopulmonary resuscitation, renal replacement therapy, use of vasoactive amines, and blood transfusions, are more often withheld in the ICU setting, whereas artificial ventilation, fluid replacement, and artificial nutrition are less frequently withdrawn or discontinued.

Because some patients are too ill to make decisions for themselves, the burden of decision making falls on family members, which may cause hesitation and limit the indication of treatment. In this decision-making context, the possibility of a time-limited trial (TLT) may provide a treatment alternative to more invasive interventions across previously identified outcomes, as it can facilitate decision making over time. Time-limited trial is an agreement between physicians and patients/family to use certain medical therapies over a defined period to observe whether the patient improves or deteriorates according to agreed-on clinical outcomes. In fact, physicians should always question whether an intervention is to be continued (balance between clinical response and toxicity) and whether iatrogenic harm is to be minimized, patient burden reduced, and health care costs contained. When deterioration occurs, TLT treatment is withdrawn and palliative care becomes the main goal of care.

For intensivists, geriatricians, and palliative care specialists, TLT is an appropriate and powerful tool that facilitates value-based, goal-oriented decision making. It is suitable for a broad
spectrum of prognosis and care priorities, allowing to recognize that a patient’s prognosis and goals of care can change over time. Time-limited trial has been used across a range of clinical contexts as an approach to the management of the critically ill in poststroke care, end-stage renal disease, and obstructive pulmonary disease, as well as in the surgical care of the frail elderly to tailor difficult care decisions to individual patients’ priorities and highlight important considerations that might otherwise be overlooked.

Caring for ill and frail older cancer patients is dependent on complex efforts involving medical, social, and psychological aspects, which may be addressed more efficiently by an interdisciplinary and patient-centered approach focusing on the patient’s values and interests. Thus, geriatric palliative care should support the exercise of personal autonomy by preserving patients’ desires and values while expanding their access to information and choices. A multidimensional evaluation with early identification of physical, cognitive, or psychosocial needs is planned timely and effective interventions to relieve symptoms, prevent complications, and reduce associated risks such as functional dependence and unnecessary hospitalization.

It is generally recognized that palliative care is an important component of critical care, whatever the stage of illness, and an indispensable tool for patients with advanced-stage chronic conditions who are heading toward the end of life. However, such care remains unavailable for a large proportion of the world’s population, especially in low- to middle-income countries. Therefore, for the sake of caring ethics and patients’ dignity and overall well-being, palliative care must urgently be made an essential component of care for the management of these patients.

**The proposal of the bioethics of protection**

Bioethics is a discipline that examines the morality of human actions that can irreversibly change the processes of living systems. It offers tools to analyze, describe, understand, and solve potential conflicts of interests resulting from the relationship between health care providers and vulnerable patients, which includes palliative care. It is generally recognized that palliative care is an important component of critical care, whatever the stage of illness, and an indispensable tool for patients with advanced-stage chronic conditions who are heading toward the end of life. However, such care remains unavailable for a large proportion of the world’s population, especially in low- to middle-income countries. Therefore, for the sake of caring ethics and patients’ dignity and overall well-being, palliative care must urgently be made an essential component of care for the management of these patients.

It is in such environment that we should clearly consider the 2 terms to which protection applies: the vulnerability of the human existential condition, inherent in all living beings, and the act of deliberately “vulnerabilizing” the ill person, interpreted as a specific existential condition in which patients, regardless of their will, values, and preferences, are given limited or no choice over what happens to them, having no means to resist or face adversity. The purpose of protection is to provide a “minimum” essential moral value to guide conflicts of interests while taking into consideration the act of “vulnerabilizing” the patient—the actual situation in which older cancer patients, admitted to the ICU, are subjected to highly complex therapeutic invasive procedures despite their frail condition. Therefore, the bioethics of protection is presented as a suitable reference for resolving conflicts in the care of ill and frail older cancer patients, with special attention to situations involving loss of functionality, in an attempt to stop treating these patients as merely vulnerable, but rather viewing them as patients who are “vulnerabilized” and, therefore, in need of protective actions.

**Conclusions**

The moral conflicts that emerge from the application of biotechnoscience and biopolitics to older cancer patients in the ICU may be legitimate objects of the bioethics of protection.
This ethical principle can provide support to patients in situations of imposed threat due to their vulnerable, or “vulnerableized,” condition. Studies on palliative care may solve the clash of the technical expertise of medicine and its curative treatments, which are still limited despite the advances in biotechnoscience. Moreover, these studies may shed some light on the culture of respect for the patient’s personal autonomy, especially regarding extreme decisions, such as allowing patients to decide whether they want to continue living in suffering or not.

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REFERENCES
1. World Health Organization. Cancer. World Health Organization. http://www.who.int/mediacentre/factsheets/fs297/en/. Updated July 15, 2016.
2. Thiery G, Azoulay E, Darmon M, et al. Outcome of cancer patients considered for intensive care unit admission: a hospital-wide prospective study. J Clin Oncol. 2005;23:4406–4413.
3. Soares M, Terzi RG, Piva JP. Thematic series: end-of-life care and the terminally ill patient at the intensive care unit. Rev Bras Ter Intensiva. 2007;19:357–358.
4. Schramm FR.Are there good reasons for fearing biotechnoscience? Rev Bioet. 2010;4:189–197.
5. Soares M, Terzi RG, Piva JP. End-of-life care in Brazil. Intens Care Med. 2007;33:1014–1017.
6. Rodriguez-Oorio CA, Dominguez-Cerich G. Medical decision making: paternalism versus patient-centered (autonomous) care. Curr Opin Crit Care. 2008;14:708–713.
7. Truong RD, Campbell ML, Curtis JR, et al. Recommendations for end-of-life care in the intensive care unit: a consensus statement by American College [corrected] of Critical Care Medicine. Crit Care Med. 2008;36:953–963. Erratum in Crit Care Med. 2008;36:1699.
8. Bossert GT, Pope TM, Rubenfeld GD, et al. An official ATS/AACN/ACCP/ESICM/SCCM policy statement: responding to requests for potentially inappropriate treatments in intensive care units. Am J Respir Crit Care Med. 2015;191:1318–1330.
9. Schramm FR. Bioética de la protección, vulnerabilidad y amenaza desde una perspectiva laica. Diálogo Polít. 2012;30:23–48.
10. Schramm FR. A moralidade da biotecnociência: a bioética da proteção pode dar conta do impacto real e potencial das biotecnologias sobre a vida e/ou a qualidade de vida das pessoas humanas? In: Schramm FR, Rego S, Braz M, Palacios M, eds. Bioética: vidas e proteção. Rio de Janeiro, Brazil: Fiocruz; 2005:15–28.
11. Savulescu J, Persson I. Human enhancement: moral enhancement. Philosophy Now (a magazine of ideas). 2016. http://philosophynow.org/issues/91/Moral Enhancement. Accessed July 19, 2016.
12. Barboza HH. Bioética e Biopoder: insuficiência dos conceitos jurídicos. In: Barboza HH, Barreto V, eds. Temas de Bioética e Biodireito. Rio de Janeiro, Brazil: Renovar; 2001:1–140.
13. Foucault M. La naissance de la médecine sociale (El nacimiento de la medicina social). Revista mexicana de Ciencias de la salud, n. 6, enero-abril 1977, pp. 89-108, UERJ, October. 1974. Dits et écrits II.; 1976-1988. http://libertaire-free.fr/MFoucault112.html. Accessed August 4, 2016.
14. Foucault M. “Il faut défendre la société.” Cours au Collège de France (1976). Paris, France: Gallimard/Seuil;1997.
15. Foucault M. Dits et Écrits III. Paris, France: Gallimard;1994.
16. Foucault M. Em defesa da sociedade. São Paulo, Brazil: Martins Fontes;2005.
17. Foucault M. Segurança, território, população. São Paulo, Brazil: Martins Fontes;2008.
18. Foucault M. Nascimento da Biopolítica. São Paulo, Brazil: Martins Fontes;2008.
19. Agamenon G. L’uso dei corpi. Vicenza, Italy: Neri Pozza;2004.
20. Schramm FR. O uso problemático do conceito “vida” em bioética e suas interfaces com a práxis biopolítica e os dispositivos de biopoder. Rev Bioét. 2009;17:377–389.
21. Morais IM. Autonomia pessoal e morte. Rev. Bioét. 2010;18:289–309.
22. Wright AA, Keating NL, Ayanian JZ, et al. Family perspectives on aggressive cancer care near the end of life. JAMA. 2016;315:284–292.
23. Reiling J. Eutanasia. JAMA Rev. 2016;315:310.
24. Bauchner H, Fontanarosa PB. Death, dying, and end of life. JAMA. 2016;315:270–271.
25. Martins A. Biopolítica: o poder do médico e a autonomia do paciente em uma nova concepção de saúde. InterFace Comun Saúd Educ. 2004;8:21–32.
26. Beauchamp L, Childress J. Principles of biomedical ethics. 5th ed. Oxford, England: Oxford University Press;2013.
27. Floriani C, Schramm FR. Casas para os que morrem: a história do desenvolvimento dos hospícios modernos. Hist Ciênc Saúde-Manguinhos. 2010;17:165–180.
28. World Health Organization. Global atlas of palliative care at the end of life. Geneva, Switzerland: World Health Organization;2014.
29. World Health Organization. National cancer control programmes: policies and managerial guidelines. Geneva, Switzerland: WHO;2002.
30. World Health Organization. Cancer: palliative care is an essential part of cancer control. http://www.who.int/cancer/palliative/en. Accessed October 22, 2016.
31. Aslakson R. Time-limited trials in the ICU: Seeing the forest beyond the bark and trees. Crit Care Med. 2015;43:2676–2678.
32. The Dartmouth Atlas of Health Care. End of life care. http://www.dartmouthatlas.org/keyissues/issue.aspx?con=2944. Accessed July 18, 2016.
33. Temel JS, Greer JA, Muzikansky A, et al. Early palliative care for patients with metastatic non-small-cell lung cancer. N Engl J Med. 2010;363:733–742.
34. The Dartmouth Atlas of Health Care. End of life care: inpatient days per dece- dent during the last six months of life, by gender and level of care intensity. http://www.dartmouthatlas.org/data/topic/aspx?cat=18. 2012. Accessed July 18, 2016.
35. Forte DN, Vincent JL, Velasco IT, Park M. Association between education in EOL care and variability in EOL practice: a survey of ICU physicians. Crit Care Med. 2012;38:40–412.
36. Soares M, Salih J, Ferreira CG, Luiz RR, Spector N, Rocco JR. Impact of two different comorbidity measures on the six-month mortality of critically ill cancer patients. Intens Care Med. 2005;31:408–415.
37. Schramm M, Terzi RG, Piva JP. End-of-life care in Brazil. Intens Care Med. 2015;41:1014–1017.
38. Neuman MD, Allen S, Schwarz ML, Uy J. Using time-limited trials to improve surgical care for frail older adults. Ann Surg. 2015;261:639–641.
39. Quill TE, Holloway R. Time-limited trials near the end of life. JAMA. 2011;306:1483–1484.
40. Bruce CR, Liang C, Blumenthal-Barby JS, et al. Barriers and facilitators to initiating and completing time-limited trials in critical care. Crit Care Med. 2015;43:2535–2543.
41. Chai E, Meier D, Morris J, Goldhirsch S. Geriatric Palliative Care: A Practical Guide for Clinicians. New York, NY: Oxford University Press; 2014.
42. Burla C, Py L. Palliative care: science and protection at the end of life. Cad Saude Publica. 2014;30:1139–1141.
43. Twycross RG. Palliative care: an international necessity. J Pain Palliat Care Pharmacother. 2002;16:61–79.
44. Schramm FR. Três ensaios de Bioética. Rio de Janeiro, Brazil: Fiocruz; 2015.
45. Schramm FR. Por qué la deficinión de muerte no sirve para legitimar moralmente la eutanasía y el suicidio asistido? Perspect Biol. 2001;6:43–54.
46. Siqueira-Batista R. A ressurreição de Frankenstein: uma metáfora das unidades de terapia intensiva contemporâneas. In: Schramm FR, Rego S, Braz M, Palácios M, eds. Bioética: riscos e proteção. Rio de Janeiro, Brazil: Editora Fiocruz; 2005:148–163.
47. de Siqueira JE. Definindo e aceitando a terminalidade da vida. In: Moritz RD, ed. Conflitos bioéticos de viver e da morte. Brasília, Brazil: Câmara Técnica sobre Terminalidade do Conselho Federal de Medicina; 2011:15–24.
48. Schramm FR. Morte e finitude em nossa sociedade: implicações no ensino dos cuidados paliativos. Rev Bras Cancerol. 2002;48:17–20.
49. Kottow M. Bioética de proteção: considerações sobre o contexto latino-americano. In: Schramm FR, Rego S, Braz M, Palácios M, eds. Bioética: riscos e proteção. Rio de Janeiro, Brazil: Fiocruz; 2005:1–44.