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# TECHNOLOGICAL MEDICINE AND PROTECTION OF HUMAN DIGNITY OF DYING PATIENT[1]

**Summary.** This study would like to mention the phenomenon of technological medicine, which is a typical product of the contemporary technoscience. The situation of actual problems of human dignity of dying patient is introduced with respect to this context, as well as the ethical impulses and questions led by new techno rationality and its mentality that are closely related with medical and clinical ethics. The Recommendation, as the norm for the clinical practice at contemporary situation, will be introduced in the closure.

**Keywords:** technoscience, technological medicine, techno rationality, human dignity, dying patient, person

# TECHNOLOGICZNA MEDYCYNA I OCHRONA GODNOŚCI LUDZKIEJ UMIERAJĄCEGO PACJENTA

**Streszczenie.** Artykuł ten traktuje o zjawisku medycyny technologicznej, która jest typowym produktem współczesnej technonauki. Sytuacja rzeczywistych problemów ludzkiej godności umierającego pacjenta jest przedstawiona w odniesieniu do tego kontekstu, jak również impulsów etycznych i pytań kierowanych przez nowe technoracjonalności, które są ściśle związane z etyką medyczną i kliniczną. Rekomendacja, jako norma dla współczesnej praktyki klinicznej, w obecnej sytuacji zostanie przedstawiona w podsumowaniu.

**Słowa kluczowe:** technonauka, technologiczna medycyna, technoracjonalność, godność ludzka, umieranie pacjenta, osoba.

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## 1. Introduction

We are witnesses of a faster and more radical mixing of the science, technology, business, culture and everyday life during the last decade. These developments are taking place also in medicine and health care. The most obvious technological progress is in the critical stages of human life - in dying and death. The intensive care, in the concept of end-of-life, makes "miracles". Critically ill or dying patient is surrounded by devices that substitute his vital signs (respiration, circulation, nutrition). He would have been dead long ago without such technology. The inability of the technological medicine to cope with the suffering is heading to legalize euthanasia and "right to die". The health insurance companies, hospitals and medical centres, pharmaceutical companies and managed health services are the business, huge and lucrative business. The health and the patient are a key commodity that is needed in this enormous system. Therefore, we look to the dying patient and his dignity in the context of technoscience, technological medicine and techno rationality. We do not want to see him as a commodity but as a person with his dignity and in his relational dimensions. Such vision requires a change of mentality not only at the general but also at the specific level.

## 2. Technoscience and technological medicine

The phenomenon of technoscience is a starting point and a basis to understand such complex issue as the end-of-life care really is. This term follows from praxis and discussions in the current science and technologies. It denotes not only a fusion of the science and technics (technologies), but it is a transition from the inner unformed science through technologies into to the “new world order” that is characterized by radical epistemological, ontological and social-materialistic changes as well as by socio-technical upheavals and restructuralization of the society and system. This process is typical for change-over into the post-industrial information society[2].

Technoscience influences everyday human life and is interpreted as a culture, life form that is integral part of the “Western culture”. It is a conglomerate of post-human high-tech and postmodern pop culture. Boundaries between science, technology, industry, society, economics, politics and military complex are blurring. It is a new “politics of life itself” characterized by producing hybrids (live - lifeless, human - non-human) and the fusion of

[2] Haraway D.: A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century, [in:] Haraway D. (ed.): Simians, Cyborgs and Women: The Reinvention of Nature. Routledge, New York 1991, p. 149-181; Latour B.: Science in action. Harvard University Press, Cambridge 1987; Latour B.: Nikdy sme neboli moderní. Kalligram, Bratislava 2003.

nature and culture (natural and artificial). It is a new epochal breakthrough[3]. The excellent examples of technoscience are cybernetics, artificial life, new robotics, biotechnology, nanotechnology and neuroscience.

Individual life in contemporary neoliberal societies increasingly blurred boundaries between human and artificial, body and mind, man and machine. This life becomes self-motivating and self-modelling through the psychotechnics, plastic surgery, sex change, modelling of emotions and thinking, genetic engineering, neuro-linguistic programming and others. Mixing technology with everyday life is radically changing our society, we become members of the new order in human history[4]. The new flexibility of life with the possibility of an optimization and improvement is the new base of bio politics, health policy and convergence of techno-science and techno-economics. There can be observed five trajectories of significant changes "molecularization", "optimization", "subjectivation", "body expertise", and the "vitality economics“ in view of the biomedical and public health.[5]

Medicine has undergone significant changes for the past few decades. Current medical practices and medical options can save lives and postpone death, where it recently occurred a quick end of life. Current medical practices and medical options can save lives and postpone death in cases which had caused usually quick end of life. These options to manipulate nature (natural biochemical processes) and change things for the better are unmatched in human history. Instrumental success of the modern medicine is obvious. Clinical and technological discoveries and improvements have raised diagnostic and therapeutic capacity of medicine. Medicine is a fusion of high-tech. Instruments such as microscopes, ECG, EEG, MRI, X-ray, chemical analysers, dialysis machines, artificial ventilation or extracorporeal circulation and others have changed medicine significantly, its research and practice. This whole complex system of the medicine interventions is denoted by term high-tech medicine[6].

Today's technology is becoming increasingly complex. It is so specialized that no one has a complete and holistic view.

Therefore, there exist wide discussions about the position of the technology in medicine, as well as about its impact on medicine and on the autonomy and responsibility of health care stuff, physician, patient. There are many tasks of using the possibility of the ethical critical approaches for understanding the nature of this problem[7]. From the polemic about the

[3] Haraway D.: Modest_Witness@Second_Millenium. FemaleMan©_Meets_OncoMouse™. Feminism and Technoscience. Routledge, New York 1997.
[4] Winner L.: The Whale and The Reactor. A Search for Limits in an Age of High Technology. Chicago University Press, Chicago 1986.
[5] Rose N.: The Politics of Life Itself. Biomedicine, Power, and Subjectivity in the Twenty-First Century. Princeton University Press, New Jersey 2007.
[6] Zamperetti N., Bellomo R., Dan M., Ronco C.: Ethical, political, and social aspects of high-technology medicine: Eos and Care. „Intensive Care Medicine”, Vol. 32, 2006, p. 830-835.
[7] Jesenková A., Klimková A.: Vzťah starostlivosti a moci v kontexte vzťahov lekár/ka a pacient/ka, [in:] Jánošíková L., Ostró N. (eds). Human Rights Fórum – Medicísnke právo interdisciplinárne. Bratislava 2012, p. 95-108.

relationship of technology to values raises the question whether they are value-laden according to the Cassell concept[8] or value-neutral according to the Sundström concept[9].

As we mentioned before, the high-tech medicine is a "product" of technoscience and contemporary techno rationality in postmodern developed democracies. Politics, market and economics influence the medical and medical processes of policy. Also the question of input/output efficiency is significant in intensive care[10]. We are all part of the high-tech medicine. We live and work in a global society where the value of human (people) is associated with ability to consume. Our consumer society consider health and health care more and more often as a commercial commodity, regarding the view that consumers independence is the fundamental mechanism for our quality of life[11].

The high-tech medicine is often referred as cold, inhuman, or addictive. In this criticism, the term medicalisation[12] of life is used. It wants to describe a pathological phenomenon in individual and social dimension and consequent responsibility of the medical system. The patient often enters a hierarchical environment of competence and bureaucracy, decisions are made instrumental, without the communication with the patient. Technological achievement in contemporary medicine goes beyond human limits, it causes "miracles". But the consequence can be alienation of relationship between doctor and patient. Medical technologies and technological medicine respectively is changing the way we think and act. Our living space is colonized[13] easily. Market mechanism in the public health care that is politically availed and abused also helps this process.[14]

Medicine was essentially diagnostic and palliative practice during the first half of the 20th century. Dying was an irreversible process without some alternatives. There was no technology that would be able to support the failing heart or to start it again if stopped. Death was a holistic fact of the human-the patient. It means not only the death of the body (organs)-biological but also the death of the whole person-biographical. Reviving the (vital) organs by technologies has brought the high-tech medicine has separated biological and biographical death, thus the way of dying was radically changed. It can manipulate every aspect of the dying process, extend, postpone or fragmentarized it.[15]

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[8] Cassell E. J.: The Sorcerer´s Broom. Medicine´s Rampant Technology. „Hastings Center Report", Vol. 23, No. 6, 1993, p. 32-39.

[9] Sundström P.: Interpreting the Notion That Technology is Value-Neutral. „Medicine, Health Care and Philosophy", No.1, 1998, p. 41-45.

[10] Ward N.S.: Rationing critical care medicine: recent studies and current trends. „Current Opinion in Critical Care", No. 11, 2005, p. 629-632.

[11] Klimková A.: K problému "kvality života" v kontexte biocentrizmu, [in:] (Úvahy) o biocentrizme a humanizme: zborník zo sympózia: 7. september 2011. Technická univerzita vo Zvolene, Zvolen 2011, p. 32-37.

[12] Illich I.: Medical Nemesis – The Expropriation of Health. Calders and Boyer, London 1975.

[13] Habermas J.: Technical Progress and Social Life-World and Technology and Science as Ideology, [in:] Habermas J. (ed.): Toward A Rational Society. Beacon Press, Boston 1971, p. 31-50 and p. 81-123.

[14] Fredriksen S.: Instrumental colonisation in modern medicine. „Medicine, Health Care and Philosophy", No. 6, 2003, p. 287-296.

[15] Zamperetti N., Bellomo R., Dan M., Ronco C.: Ethical, political, and social aspects of high-technology medicine: Eos and Care. „Intensive Care Medicine", Vol. 32, 2006, p. 831.

Despite the fact that death is and will always be an inevitable at the end of physical life and it is its natural part, technological support of the high-tech medicine in saving lives often only prolongs agony. Opportunities and capabilities of high-tech medicine to manipulate the dying process and extend the low quality of life at all costs is described as the EOS syndrome[16] (the dream of immortality) of modern medicine.

## 3. Techno rationality and it mentality

Four common overlapping areas - signs of a new techno rationality with their specific ethical consequences and questions - can be followed in the technoscience phenomenon, in the high-tech medicine and in the complex end-of-life issue (palliative patients care): (a) post and anti-metaphysical thinking about life, (b) fear of suffering and death, (c) rationalistic and humanistic technoscientism, (d) the imbalance between technology and ethics in medicine. Next, we mention them briefly

Post and anti-metaphysical thinking about life

Human being in today's society (whatever it is called anyway) lives only for the present. Loss of contact with the transcendent (god) and lack of metaphysical thinking has its consequences, but most people maybe do not deal with this. They do not ask questions, that can unsettle them, or they just feel that somewhere in theirs being. Therefore, they try to escape from reality and pain of this world (the truth about themselves, relationships, how things work) to some immediate relief and consolation (consumerism, money, dreaming). Despite an attempt to escape, the existence (looking for essence) only in the physical world of matter is more or less feeble, and facing to the reality of suffering and death it is really senseless. It is the task of philosophy and ethics to tackle the questions about the nature and cause of goodness, truth, beauty, human being and the world. If there is nothing that could give a meaning to the everything and to unite fragmented parts of life into one coherent and meaningful unity, then it only remains to agree with the Jewish Old Testament Ecclesiastes: "Vanity of vanities, all is vanity."

Fear of suffering and death

Our Western "democracies" are often referred as the societies denying pain / death. Suffering and death in the western mentality have no sense. Societies living in a prosperity, in a presence of consumerism, in a comfort and in a relief from the real life; societies preferring everything that is young, beautiful, healthy and success; they essentially ignore and taboo the

[16] Zamperetti N., Bellomo R., Dan M., Ronco C.: Ethical, political, and social aspects of high-technology medicine: Eos and Care. „Intensive Care Medicine", Vol. 32, 2006, p. 831.

reality of pain, suffering and death. All negative phenomena in human life (old age, illness, failure ...) are eliminated, or discussed, at most; they are socially marginalized and placed into some reserved places (hospitals, hospices, retirement homes). Even the pain and the death should be completely "painless" (sweet death, death from mercy). Human being is afraid of suffering and death, but it is very logical, because it disrupts his delusion of idealized dream life, that his 70 or 80 years (hopefully) can take forever. Then, how cruel is the awakening for family and (possibly) also for patient who is suddenly at the intensive care unit. Perhaps, just here one becomes able to look truth in the face, to behave rationally and to deal with facts themselves.

Rationalistic and humanistic technoscientism

The consequences of such concept are present in high-tech medicine, as well as in society and people lives. People's blind confidence in medical technologies that everything can be healed, people can be younger, long living, process of aging and death can be delayed, reversed, or defeated is essentially irrational. On the one hand, technoscientism denied the quality of metaphysics, ontology and philosophical categories, calling it unscientific; but on the other hand, it behaves irrational and does not respect the facts of life - aging, suffering and death, it is not capable to integrate them into its "exact" concepts. Therefore, it contradicts itself. To describe human life by exact methods is not sufficient form for everyday reality. Excessive faith and devotion in science that it will solve everything, can be easily falsifiable by an experience. The fact is that science does not solve and will never solve everything, contrary is just wishful thinking.

The imbalance between technology and ethics in medicine

Our intention is not to deny or belittle the tremendous technological advances in medicine. It is a great achievement in human history. Each extended or saved life has immeasurable value. Technology, respecting the ethical principles, is an important asset in the service for human and his health. Of course, the questions arise also here: Is ethics able to keep pace with technology? Is it not the technology that complicates ethical issues and raises many new dilemmas? Why is the ethics so important for the use of technology and for humans? According to the theoretical knowledge and experience we can say that there exists an imbalance in medicine between the technology and ethics. Although, the ethics can theoretically anticipate technological developments (to assume it, to deal with hypothetical questions), is often lagging behind quite significantly in practice because the applicability is always the hardest. Therefore, the range is not just black and white but a multi-coloured - from unethical to ethical conduct.

## 4. Dying patient: from „commodity" to „person"

The most obvious power of the high-tech medicine can be seen in the clinical practice; that means, in the anaesthesiology and intensive medicine. There the concrete surgeon fights for the lives of his patients, there concrete decisions about further treatment and life are done. If we want to move from the perception of suffering and dying patient as a „commodity" to perception him as a „person", it will be necessary to change the mentality, strategies, approaches and methods - to implement new alternatives, from the general up to the individual level.

Main changes in the general level:

The first alternative is a return to metaphysics. A renewal of the human spiritual level can give the meaning to everything. The only way how to cope the tragic suffering is to search and discover the real and true essence of the life and to ask the questions. Just by searching for the transcendent (God), by implementation of the faith, hope and love, it is possible to succeed in the face of death, when values and "values" are distinguished.

The second alternative is an acceptance of the death. Our society (human beings) has to accept the fact of the death and to revise it again as an important part of natural life, despite the fact that it is often very sad and tragic time in one's life. Only if this reality of dead will be accepted, only then an accompanied suffering patient can sense the valuable element of the terminal care in the process of dying.

The third way is the patient-oriented care. High-tech medicine should not be inhuman but oriented to patient care. Its purpose is not just technological progress itself or to save the life at any cost but also to humanize the process of dying for critically ill and dying patient, and to sustain his dignity by combining the individual, medical and social needs. This contains qualitative improvement of the relationship between physician and patient.

The fourth method is an acceptance and implementation of ethics. It is important to accept the ethical principles and then the technology can serve people in medicine: autonomy (patient right to make his own healthcare decisions), beneficence (patient should benefit from health care), non-maleficence (health care should do no harm), and distributive justice (resources should be used in a fair and equitable manner). It is necessary to apply them into practice and to implement into medicine. Moreover, we need to do beyond the statutory minimum, if we want that each suffering patient will be considered as a person living in relations with his unique and distinctive dignity.

Four mentioned key changes (new alternatives) are necessary and condition another, more specific changes. We should not remain only in a general or theoretical/academic level, but we have to practise those main changes in the specific level of the clinical practice:

The following outlines may help to improve the quality of the care according to the authors Levy and Curtis[17]: (a) strong interdisciplinary cooperation and communication with specialists in the palliative medicine; (b) excellent communication skills of each team member; (c) excellent symptomatic diagnosis; (d) the patient-oriented treatment comprising the his values and preferences; (e) family-oriented care, involving communication, psychological, spiritual and social support; (f) regular interdisciplinary meetings with family focused to support and common decision-making process.

Below, we suggest 14 more specific strategies (methods) that can enhance palliative care[18]: (a) monitoring of the end-of-life care quality, (b) service "how to face the painful loss", (c) regular meetings of doctors and nurses with patients' families, (d) training of the clinical staff in communication skills (about the end-of-life problem), (e) modelling and supervision by trained clinical personnel who have experience with the patients with end stage.(f) the mechanisms for emotional teams support that take care of dying patients, (g) access to the consultants in palliative care, (h) training of clinicians in the management of symptoms (ch) creating teams to promote continuity of care for dying patients. (i) formal system for scaling and the graphs in a patient's symptoms, (j) helpful method to clarify the differences in the various care objectives, (k) the resources for adaptation to differences between patients/families at the end of life (l) presence of the clinical ethics consultants (m) regular pastoral (spiritual) care in intensive care units.

## 5. Clinical recommendation: protection of human dignity

Consensual statement of The Slovak Society of Anaesthesiology and Intensive Care Medicine and The Section of Palliative Care of Slovak Society for Study and Treatment of Pain of the Slovak Medical Society dated to 20.5. 2014 is called The Recommendation[19]. It sets out the procedure for the modification of the intensive treatment to the palliative

[17] Levy M.M, Curtis J.R.: Improving end-of-life care in the intensive care unit. „Critical Care Medicine", Vol. 34, No. 11 (Suppl.) 2006.

[18] Nelson et al.: End-of-life care for the critically ill: A national intensive care unit survey. „Critical Care Medicine", Vol. 34, 2006, p. 2551.

[19] Odporúčanie postupu pri zmene intenzívnej liečby na paliatívnu liečbu a starostlivosť u dospelých pacientov, ktorí nie sú schopní o sebe rozhodovať v terminálnej fáze ochorenia [The Recommendation of the procedure for the modification of the intensive treatment to the palliative treatment and care of the adult patients who themselves are unable to decide in the terminal phase of the disease]. Authorised version 20.5.2014. „Anestéziológia a intenzívna medicína", Vol. 3, No. 1, 2014, p. 34-36. (Hereafter as The Recommendation...). The Recommendation includes 7 paragraphs: the first defines concerned patients, the second establishes the goals, the third explanes the terminology, the fourth explores the background, the fifth mentiones the fundamental principles, the sixth appoints recommendations for clinical practice and the last one fixes the effectiveness.

treatment and care of patients with end-stage disease, in the Slovak clinical environment. This Recommendation may become an ethical alternative against the "right to die".

The recommendation is a pioneering text in Slovakia that unifies and obliges uniformly into clinical procedures not only the doctors but also the other stakeholders. Moreover, it also explains why to act in such a way. It contains clearly described definitions and terms[20], which are very confusing in non-medical and media areas.

The Recommendation places importance to the human dignity protection[21] of the critically ill. It also means to eliminate their physical and psychological suffering in maximally possible extent; to act on their behalf and to take his will (if conscious) into account. The protection of the human dignity is closely related to the question how to define the human dignity and personality. The patient is not a number or thing, but he is a human being who has his own identity, unique and unrepeatable dignity (mind, will, emotions, need for relationship, spiritual needs and others).

The entire text of The Recommendation implicitly invites to practice the real compassion, kindness and humanity. This has to result in a superior quality of the medical and palliative care in accordance with the law and ethical (moral) standards. Therefore, euthanasia and assisted suicide are ethically unacceptable and legally punishable. These are crimes against the life led by the false compassion[22].

The only possible way that is consistent with the ethical and legal standards is palliative care[23] that protects human dignity of the critically ill and adequately alleviates pain and suffering. It protects human life especially in this juncture dying and accompanies dying patient. It allows to involve the family and loved ones of the patient into this process, and also to pay attention to the patient's spiritual needs.

## 6. Conclusion

We have shown that a dying patient has only one single option, which technology medicine[24] often provides, supported by the technoscience and techno rationality: deep loneliness and lostness in a technological medical environment and helplessness against the

[20] The Recommendation..., par. 3.
[21] The Recommendation..., par. 2 c).
[22] The Recommendation..., par. 3 i).
[23] The Recommendation..., par. 4, 5, 6.
[24] Deleuze G.: Postscript on the Societies of Control. „October", Vol. 59, Winter 1992, p. 7.

suffering. It is very logical that the way out of this desperate situation seems to be the "right to die" or euthanasia. Such basis is neither human, nor reasonable, nor legitimate and nor moral. However, there are other approaches and alternatives to protect the dignity of the dying patient: a return to metaphysics, which offers richer and more complex reality of a person, an acceptance of death (mortality) as a natural part of human life, a quality care focused to the patient that looks at him holistically and an implementation of the ethical and moral principles that do not consider people as goods or things but as an autonomous moral entity – persons. The application of this approach into the clinical applications emphasises, for example the role of quality communication, family, personal relationships, humanity, mercy, and spiritual needs. Presented background will cause humanizing of technological medicine and offers to the dying patient not the pathological self-destruct mentality, but the new hope and desire to overcome suffering and if it fails, then dying with dignity as beloved and loving human being.

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13. Nelson et al.: End-of-life care for the critically ill: A national intensive care unit survey. „Critical Care Medicine", Vol. 34, 2006, p. 2547-2553.
14. Odporúčanie postupu pri zmene intenzívnej liečby na paliatívnu liečbu a starostlivosť u dospelých pacientov, ktorí nie sú schopní o sebe rozhodovať v terminálnej fáze ochorenia. Schválená verzia zo dňa 20.5. 2014. „Anestéziológia a intenzívna medicína", Vol. 3, No. 1, 2014, p. 34-36.
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**Omówienie**

Artykuł ten traktuje o zjawisku medycyny technologicznej, która jest typowym produktem współczesnej technonauki. Sytuacja rzeczywistych problemów ludzkiej godności umierającego pacjenta jest przedstawiona w odniesieniu do tego kontekstu, jak również impulsów etycznych i pytań kierowanych przez nowe technoracjonalności, które są ściśle związane z etyką medyczną i kliniczną. Rekomendacja, jako norma dla współczesnej praktyki klinicznej, w obecnej sytuacji zostanie przedstawiona w podsumowaniu.