

UNIVERZITA PAVLA JOZEFA ŠAFÁRIKA V KOŠICIACH

# MEDICAL ETHICS

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Dorota Sopková, Ingrid Nerantzakis



Faculty of Medicine

Košice 2017

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## **MEDICAL ETHICS**

*Textbook*

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ISBN 978-80-8152-545-2

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## **Preface**

History of ethics represents a search for basic principle, which would enable a distinction between moral and immoral, good and bad, right and wrong. The main problem lies in motives, methods and consequences of human conduct. The integrity of medical profession puts emphasis on life-long study and practice according to the professional competence, and last but not least on ethical principles and rules of medical ethics.

Medical ethics, as a part of bioethics, is currently taking on a huge importance in everyday clinical practice and must face many serious ethical issues regarding the whole system of health care. On general level the decision-making in medical practice is quite easy, based on the requirement to always act in the patient's best interest. However, it is often difficult to know exactly what is best for the patient, in a certain situation, for this particular patient. Also with each progress in medicine and its globalization, the more aspects of human lives are being affected. Biomedical research, and the new treatment and diagnostic methods it provides are viewed differently in each country, therefore various cultural, religious, social and legal aspects must be considered in their assessment, as well as the basic principles of medical ethics. Worldwide effort on unifying ethical regulations on certain aspects of health care led to the establishment of many legally recognized documents the doctors must be familiar with. Teaching ethics to students of medical school aims to educate the future doctors towards ethical decision-making, behaviour and professional conduct according to the basic principles of medical ethics.

This textbook provides the basic information on medical ethics for students of medical faculties and serves as a practical introduction to the most common ethical problems of health care provision for their future professional practise.

*Authors*

# 1 Ethics: philosophy and science

Ethics is at the forefront of all areas of life, it accompanies our everyday actions, penetrates into all areas of human life, and therefore is an integral part of every human conduct. The word *ethics* comes from Greek "*ethos*" which means *character, habit* or *custom*. It is used to describe guiding principles, beliefs or ideas that characterize certain ideology. In its focus on people's lives it represents a system of moral principles to be used as guidelines for human conduct. As a "*moral philosophy*", ethics has a double status, both philosophical and scientific, with no possibility to clearly distinguish which side is more important. However, the philosophical or scientific interpretation can prevail in relation to a particular dilemma.

Ethics, is defined as an interdisciplinary science on the nature of human activity, proper realization of man and on the moral value of human action. The main role of ethics is to analyze and justify the moral value of human conduct, whether by an individual, group of people or whole society. In this matter, ethics can be understood as a theoretical study of values and principles that guide human action in situations where selection is possible. Consequently, this set of criteria allows moral assessment and guidance of an individual's conduct in accordance with certain ethical principles. Basically, the ethics suggests the assumptions, possibilities and consequences of certain forms of human behaviour. To act ethically means to act in accordance with the true nature of the activity. Ethics can also be understood as a rational reflection of moral systems, rules, and habits, as a way of the life of man, his behaviour and conduct.

Ethics is quite often mistaken with **morality**. From the Latin word "*moralis*" meaning *manner* or *proper behaviour*, the morality is considered as the value dimension of human decision-making and behaviour, differentiating the intentions, decisions, and actions between those that are good (or right) and those that are bad (or wrong). The ethics on the other hand is more interested in character of certain action, asking the questions *how?* and *why?*, whereas the morality is asking whether this action is *good?* or *bad?*. Another difference is the focus of these questions, with morality being interested in the individual action and internal character of a person, where ethics is focused on the whole of the social system.

Ethics has three basic approaches:

- **descriptive ethics** – interested in real behaviour of people and what sorts of moral standards they follow ("*How should people act?*"),

- **normative ethics** – focusing on creation and evaluation of moral standards (*"What do people think is right?"*),
- **analytic ethics (metaethics)** – represents a study of the origin and meaning of the ethical concepts (*"What does 'right' even mean?"*).

Application of ethical theory to real-life situations led to creation of applied ethics (*"How do we take moral knowledge and put it into practice?"*). Depending on the area of focus in human conduct we recognize various types of applied ethics, such as bioethics, business, professional, social or media ethics.

**Bioethics**, also referred to as the *"ethics of life"*, represents a philosophical science on principle of doing good for humans and the whole nature. It was first defined by V. R. Potter in 1970 to describe a new philosophical science which integrates ecology, biology, medicine and human values. Part of this science are three sub-disciplines:

- **medical ethics**,
- **animal ethics**,
- **environmental ethics**.

In a broader sense the term bioethics is used in relation to medical practice, biomedical research, environmental protection, biological diversity and behaviour of people towards animals. Bioethics developed due to new problems in decision-making arising out of human existence in current world. Important factors which led to the development of bioethics include:

- a successful progress in biological and medical sciences, biotechnology, and pharmaceutical industry,
- the expansion of biomedical research,
- the establishment of scientific and research institutes associating not only scientists, biologists, and doctors, but also ethicists, lawyers and theologians,
- rapidly expanding professional literature, journals, medialization and campaigns,
- new ethical dilemmas in medical practice,
- pluralism in moral philosophy,
- changes in general opinion on morals,
- changes of moral behaviour (individual, group, professional, societal, national, global),
- shortage of natural resources.



The most recognized landmark events in the evolution of bioethics are:

- I. Darwinism (Ch. Darwin, 1859 – *On the Origin of Species by Means of Natural election, or The Preservation of Favoured Races in the Struggle for Life*),
- II. Gene theory, genetics (Mendel, Bateson, 1890),
- III. Old "capitalist" and revolutionary "socialist" bioethics (since 1917),
- IV. Role of human subjects in biomedical experiments after Nazi experiments conducted during World War II (since 1945),
- V. Organ transplantation and end-of-life care (since 1960),
- VI. Beginning of life and assisted reproduction (since 1970).

A new vision of a global transformation of ethical awareness is represented by **global ethics**, abiding by the idea that every person, whether at a worldwide, national or local level, is dependent on shared basic ethical values, criteria and attitudes for peaceful coexistence. The global ethics programme was started by Swiss theologian Hans Küng (professor of the University of Tübingen in Germany) and his book *Global Responsibility* published in 1991, where he states the main reason for development of global ethics to be that people of all religions know far too little about one another. The new vision, vision of global ethics, includes following ideas:

- no peace among the nations without peace among the religions,
- no peace among the religions without dialogue and cooperation between the religions,
- no dialogue between the religions without global ethical standards,
- no survival of our globe without a global ethics.

Similar idea of globalization happened in the field of bioethics, even before the term global ethics came into the view, in 1988 V. R. Potter suggested a term "*global bioethics*", as a calling for the merging of environmental ethics and medical ethics on an international scale to preserve the human life. This idea urges the medical ethicists to also consider long term consequences of their day-to-day clinical decisions and expand their thinking and actions to public health issues world-wide. In 2011 Global Bioethics Initiative (GBI) was founded. This organization is dedicated to fostering public awareness and understanding of bioethical issues, and to exploring solutions to bioethical challenges.

## 2 Medical ethics

Medicine, as a science concerned with human health and illness belongs to disciplines that naturally show an increased interest in ethics. Based on the very nature of medical sciences that it is fundamentally deeply ethical. Medical ethics is a form of professional ethics concerned with the issues arising out of the practice of medicine and it is primarily patient-oriented. Ethics has been an integral part of medicine at least since the time of Hippocrates, and the existence of Hippocratic Oath as the first code of ethics for physicians.

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**Hippocrates** (born 460 BC, Kos, Greece, died 377 BC, Larissa, Thessaly) is regarded as the "*father of medicine*". He was the founder of the Hippocratic School of Medicine, where a group of professional physicians practiced medicine bound by a strict ethical code. Aspiring students normally paid a fee for training and entered into a virtual family relationship with his teacher. This training included oral instructions and hands-on experience as the teacher's assistant. After taking the Hippocratic Oath, in which students promised to place the interests of the patients above their own, they had the right to treat patients. The oath is included in *Corpus Hippocraticum* and it is considered to be the first definition of medical ethics. Tradition of swearing to some form of Hippocratic Oath at the graduation ceremony is kept until this day.

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Medical ethics is focused on doing good for people with special regard to protection of life and health. Its main goals include humanizations of interpersonal relationships and guidance during the provision of health care, aiming to satisfy therapeutic, psychological, social, cultural, spiritual and other needs of patients in an appropriate way. Even though medical sciences are progressing rapidly and current medical practice doesn't have very much in common with medicine in times of Hippocrates, the patients with their health conditions, diseases, fears, wishes and expectations still remains its main.

The three most commonly commanded categories of ethical theories in realization of bioethics and medical ethics include deontology, utilitarianism and rights. Deontology is a theory of moral relations, doing and responsibility of a physician towards himself, patients, colleagues and society. The deontological theory states that people should adhere to their obligations and duties when analyzing an ethical dilemma. A person who follows this theory

will produce very consistent decisions, since they will be based on the individual's set duties. Utilitarianism is the ethical theory founded on the ability to predict the consequences of an action. The physician-utilitarian can compare similar predicted solutions and use a point system to determine which choice is more beneficial for more patients. This point system provides a logical and rational argument for each decision and allows a physician to use it on a case-by-case context. In ethical theory based on rights, the rights established by society have the highest priority. These rights are considered to be ethically correct and valid since a large population endorses them.

Basic principles of medical ethics are:

1. **Beneficence** (*Beneficiencia*) – a requirement to do maximal good for the welfare of an ill or healthy person [*salus aegroti suprema lex*],
2. **Harmlessness** (*Non maleficiencia*) – a requirement for the exclusion of any intentional or unintentional damage of health [*primum non nocere, nihil nocere!*],
3. **Autonomy** (*Autonomia*) – a respect for patient's will [*voluntas aegroti suprema lex*],
4. **Justice** (*Justicia*) – no discrimination of patients by gender, race, religion, etc. [*justitia omnibus*].

Presumed to be the fifth principle of medical ethics is **informed consent** (*Consensus cognitus*) of the patient or a legal representative. It is a requirement for performing any diagnostic, therapeutic, as well as any research interventions (experimental treatment, clinical education, tissue banking) [*nihil novi nisi commune consensu*]. Only on the principle of free informed consent of the mentally competent patient on the basis understandable (intelligible), full, and appropriate information previously provided to him/her, the doctor has a right to provide him/her with medical care. The informed consent should be required as a rule in a written form.

Sometimes, the physicians can find themselves in situations, where none of the basic principles of medical ethics, however objectively interpreted, can lead them to ethically correct decision. Even situations can occur, where two principles are fighting each other or they are in the conflict with legal norms and regulations.

The variety of ethical problems with which nowadays medical ethics is dealing with include:

- **selection and education of physicians and health care professionals,**
- **patient's rights,**

- **informed consent of patient / legal representative,**
- **biomedical research with participation of human subjects,**
- **the human as a source of social values:**
  - biological compensation (blood, cells, tissues, organs),
  - diagnostic and protective substances,
  - biological material for human reproduction,
- **beginning of life issues:**
  - methods used to achieve pregnancy  
(*artificial insemination, in vitro fertilization (IVF), embryo transfer (ET), prenatal genetic diagnostics and other investigations, surrogacy*),
  - methods used to prevent pregnancy  
(*artificial termination of pregnancy / abortion, sterilization, contraception*),
- **end of the life issues:**
  - resuscitation and intensive care,
  - terminal stage of the disease,
  - euthanasia, assisted suicide,
  - death,
  - dead donors of organs and tissues for transplantation,
  - the legal status of the dead body,
  - ethics of autopsy and forensic investigations,
- **highly infectious diseases,**
- **relationships and communication between the *patients and health care providers*,**
- **relationship between the *citizens and health care* (health insurance),**
- **donation of organs and organ transplantation,**
- **experimental biomedical research involving animals,**
- **position of the complementary (alternative) medicine,**
- **the collection, storage and use of identifiable data and biological material (eHealth, Biobanks).**

Medical ethics is evolving and reacting to various needs and situation arising during the provision of health care. Throughout the history, there were many events that led to the global development of medical ethics:

- inhuman research conducted by Nazi doctors on prisoners in concentration camps, murders of physically and mentally impaired "inferior" patients,
- thalidomide tragedy – babies born with severe malformations of extremities as the effect of administering thalidomide to pregnant women,
- the enormous expansion of scientific knowledge and technical resources in contemporary medicine, which preceded the development of ethical standards and law-making,
- abuse of psychiatry for political purposes,
- forced terminations of pregnancies,
- illegal procurement of organs for transplantation,
- drug abuse and other serious crimes in medicine.

In relation to these events, many international codes, declarations and agreements for doctors and later for other health care professionals, and patients have been established. The oldest and the most honoured code of ethics is the Hippocratic Oath, which establishes the moral continuity of all later ethical codes. The most important internationally valid documents concerning issues of health care and medical ethics are listed in Tab.1.

Life in 21<sup>st</sup> century brings with it new trends in medical practice, technological advancements and new forms of diagnosis and treatment. However, this also brings up new ethical problems and dilemmatic situations, therefore new requirements on application of medical ethics must be considered. Just as medical ethics changes over time, in response to these developments in medical science and technology, as well as in societal values, so does it vary from one country to another depending on these same factors.

We must also not forget the range of ethics in current laws and regulations. Ethical values and legal principles are usually closely related, however there are situations, where the law mandates unethical conduct. Ethics education aims to train future physicians to identify and resolve ethical issues in accordance with the law. If the physicians believe the law is unjust, they should work to change the law.

Tab. 1 The most important internationally valid documents concerning issues of health care and medical ethics.

<b>Title</b>	<b>Year</b>	<b>Content</b>
<b>Geneva Protocol</b>	1925	prohibition of the use of chemical and biological weapons in international armed conflicts
<b>Nuremberg Code</b>	1947	prohibition of experiments on humans without their consent
<b>Universal Declaration of Human Rights</b>	1948	
<b>WMA Declaration of Geneva</b>	1948, 1968, 1983, 1994, 2005, 2006	modern equivalent of Hippocratic Oath
<b>WMA International Code of Medical Ethics</b>	1949, 1968, 1983, 2006	more detailed code of ethics
<b>European Convention on Human Rights</b>	1950	
<b>Declaration of Helsinki</b>	1964, 1975, 1983, 1989, 1996, 2000, 2002, 2004, 2008, 2013	
<b>WMA Declaration of Oslo</b>	1970	statement on therapeutic abortion
<b>Declaration on the Rights of Mentally Retarded Persons</b>	1971	general and special rights of mentally handicapped persons
<b>The Declaration of Hawaii (World Psychiatric Association)</b>	1977	prevention of the abuse of psychiatry for political purposes
<b>WMA Declaration of Lisbon on the Rights of the Patient</b>	1981, 1995	
<b>The Nurse's Role in Safeguarding Human Rights</b>	1983	
<b>European Association for Children in Hospital (EACH) Charter</b>	1988	
<b>The Declaration on the Promotion of Patient's Rights in Europe</b>	1994	
<b>The European Charter of Patients' Rights</b>	2002	
<b>Declaration on Tobacco Control</b>	2002	
<b>WMA Declaration of Taipei on Ethical Considerations Regarding Health Databases and Biobanks</b>	2002, 2016	

### 3 Ethical requirements for medical profession

Medical profession is regarded as a very demanding. On daily basis physicians make decision about the health of their patients, where even a small sign of carelessness or a mistake in consideration or during diagnostic or therapeutic procedure can have severe and irreversible consequences for the patient. The physicians must know how to properly communicate with the patients and their relatives, to be able to gain their trust. Because the health care providers work in a team, it's not unusual that they are confronted with conflicting situations. Therefore special demands are placed on physician's personality.

The main requirements for medical profession are:

**Physical health.** The physicians should take care of their health, physical condition and hygiene.

**Mental health.** The physicians should develop resistance towards the mental stress and ability to handle conflicting situations, they should avoid any addictions.

**Professional ability.** Constant and life-long study is required to gain the highest possible qualification for practicing medical profession.

**Personal features:**

- socialness – to help without discrimination, pity, self-sacrificing,
- empathy – towards both patients and colleagues,
- solidarity – with patients and their relatives,
- responsibility – towards patients and the whole community,
- conscience – inborn basis-coded demand of the protection of life and health developed lifelong,
- communicability,
- sympathetic, pleasant behaviour,
- self-confidence – competence to the medical rank,
- cultivation of rank virtues of physicians,
- suppression of negative features– pride, arrogance, indifference, corruption, laziness.



In 1949, the 3rd General Assembly of the World Medical Association (WMA) adopted **WMA International Code of Medical Ethics**, which includes the duties of the physicians in general, duties towards the patients and towards their colleagues. The code has been revised three times so far, in 1968, 1983 and 2006.

In Slovakia, the provision of health care is bound by certain ethical standards, contained in **Ethical code for health care providers**. This code is incorporated in Supplement 4 of *Act No. 578/2004 on health care providers, medical staff, professional organizations in health care and on the modification and amendment of some legislative acts*. Principles of this ethical code are based on Hippocratic oath, current legislation and some other medical and legal regulations (Labour Code, Civil Code, etc.), documents and statements provided by World Health Organization, Declaration of Helsinki, Nuremberg Code and also Slovak Medical Chamber. Ethical code for health care providers is a basic foundation of medical ethics, which is obligatory for every health care provider (doctor, dentist, nurse, pharmacist, physiotherapist, etc.) and it consists of five parts:

- I. General responsibilities of health care provider,
- II. Practicing of the profession,
- III. Relationships between health care provider and patient,
- IV. Relationships between health care providers,
- V. Specific ethical principles for profession of health care provider.

Already students of medical school should nurture their personal growth towards these requirements. Even during their study they must follow certain ethical standards, and this should help them realize, whether they are able to live up to the expectations and requirements for medical profession. In this matter WMA also published **Medical Ethics Manual** as a universally used curriculum for teaching medical ethics. First Manual was presented in 1999, nowadays 3rd edition exists, published in 2015.

At Pavol Jozef Šafárik University, **Code of student conduct** was established to provide a clear statement of University's expectations of students in respect of academic matters and personal behaviour. It represents ethical requirements regarding student conduct. Each student is expected to exercise responsibility appropriate to his/her position, therefore it is considered to be a very important information and it is advised that students read this document.

## 4 Goals of health care system

Every human being, as a part of the society, has four dimensions:

- **biological** (physical, somatic),
- **mental** (emotions),
- **social** (contact with the society),
- **spiritual** / the real "me" manifesting as:
  - *the need of knowledge,*
  - *the need of thinking,*
  - *the need of values,*
  - *the need of relationships.*

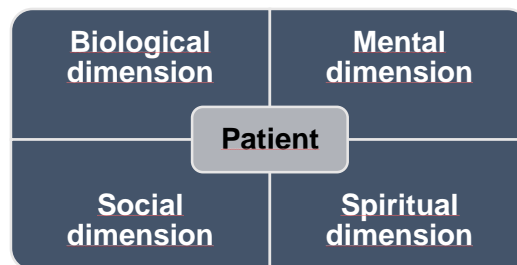


Fig. 1 Four dimensions of the human being – the patient.

Basic requirement for existence of these dimension is health. The physician must realize that the patient needs to be satisfied in each of these dimensions, often the mental, social and spiritual dimension is being overlooked. The same is stated in the definition of health by the World Health Organization (WHO): "*Health is a state of complete physical, mental and social well-being*". Health cannot be defined merely as an absence of the disease, infirmity, or invalidity. Basic postulates about health by WHO are:

1. Health is one of the most important needs of every human being,
2. Every human being is personally responsible for his/her health,
3. Every person has a right to decide about their health,
4. Every person must offer help to everyone, who's health has been damaged.

Society has to make it possible for everyone to strengthen their health, regain back their health, and handle the adverse health condition in the best way possible. Every person without the difference has the right to health, health care, and social security.

Implementation of WHO postulates led to a positive change in the philosophy of the health care. The previous one focused health care primarily on the sick person, diagnosis and treatment. Current philosophy is more concerned with healthy people, support and protection of their health, providing prevention of the disease. Therefore the main focus of medicine shifted from the treatment of the disease to its primary and secondary prevention. Primary prevention meaning the identification of the risk factors and their elimination, and secondary prevention in slowing down the progression of already present disease.

To be able to understand the goals and priorities of health care, we must also define a term "*disease*". In general, disease is considered a biosocial phenomenon, which is the result of interaction of pathological and compensatory processes leading to the damage of cells, tissues and organ systems. It is a definite pathological process having a characteristic set of signs and symptoms. This term covers both objective and subjective aspect. The objective aspect includes three different pathological forms: pathological reactions, pathological processes, and pathological conditions. Pathological reaction is a process that lasts for a short time, and it basically represents the inadequate response of the organism (cells, tissues, organs) to the noxa. Examples of pathological reaction can be syncope, short-lasting elevation of blood pressure, tachycardia, diarrhoea, hyperemia, increased permeability of the capillary walls, or leukocytosis. Pathological process on the other hand represents a complex of pathological and defensive-adaptive reactions caused by noxa, causing deflection of one or more physiological functions outside its reference period. For example inflammation, hypoxia, tumour, fever, oedema, acidosis, or alkalosis. And the last, pathological condition is defined as a pathological change, which is stable or doesn't change during the longer period of time. It could be conditions like arthrosis, congenital heart defects, deafness, blindness, etc.

The right for life and optimal development is a natural human right, the right that cannot be given by the law. Societies on various levels (cities, states, world) must take responsibility for the environmental conditions affecting health (environmental cleanliness, hygiene, control and elimination of negative social phenomena - smoking, alcoholism, drug addiction) and the the quality and accessibility of health services. Failure to comply with this later requirement is most visible in health care for old, terminally ill, dying patients and mentally disabled patients. Societies must also enable people to actively take care of their health and develop global efforts to eliminate hunger, disease and social injustice. And what is important to mention is that they have no right to determine the conditions for the rights of the human beings.

## 5 The rights of patients and human dignity

Based on the four basic principles of medical ethics, the patient has a right for health care in accordance to his/her health condition, including preventive care and activities aiming to support the health. Health care must be available and provided according to the principle of justice, without discrimination and according to the financial, human and material resources in the society. Actions of all the participating health care professionals must be focused on the best interest of the patient, the user of health care services, whether healthy or sick. Development of the human rights and individual freedoms, tendency of patients for making decisions about their health and determination of patients' responsibility for their own health gave the foundation for establishment of patients' rights. Other contributing factors were overall growth of medical knowledge in society and an increase of chronic diseases, leading to debates over quality of life and problems of patient autonomy. Supporting documents in the development of patients' rights are:

- Universal Declaration of Human Rights (1948, UN Organization),
- European Convention on Human Rights (1950, Council of Europe),
- Declaration on the Human Genome and Human Rights (1997, UNESCO).

The first charter of patients' rights was formulated by D. Anderson, American pharmacist, in 1971. American Hospital Association in 1973 accepted the *Patient's Bill of Rights*, and in the following year, *Hospitalized Patients' Charter* in Paris was established. Beginning the '80s patients' rights were being widely accepted, especially in developed countries. Currently the main documents including the rights of patients are **Declaration on the Promotion of Patients' Rights in Europe** (Amsterdam, 1994) and **Convention on Human Rights and Biomedicine** (Oviedo, 1997). Then every country also has its own national documents concerning patients' rights. In Slovakia patients' rights are implemented according to the **European Charter of Patients' Rights**, drafted in 2002. It states 14 patients' rights that together aim to guarantee a high level of human health protection and to assure the high quality of services provided by the various national health services in Europe. The 14 rights of this charter are:

1. Right to Preventive,
2. Right of Access,
3. Right to Information,

4. Right to Consent,
5. Right to Free Choice,
6. Right to Privacy and Confidentiality,
7. Right to Respect of Patients' Time,
8. Right to the Observance of Quality,
9. Right to Safety,
10. Right to Innovation,
11. Right to Avoid Unnecessary Suffering and Pain,
12. Right to Personalized Treatment,
13. Right to Complain,
14. Right to Compensation.

Health care must be always provided with a respect to human dignity, which is a basis for human rights in general. To able to apply this principle we must first understand and properly define the criteria of human dignity. Throughout the history there were different definitions of dignity. First one comes from Cicero (106-43 B.C.E), who considers dignity to be the authority of every human being, deserving attention and respect. T. Hobbes (1588-1679) on the other hand puts dignity in a relation to one's origin, social status, power, wealth, talent and other skills. I. Kant (1724-1804) in his theories returns to the original understanding of the human dignity, and defines it as a an inner, inborn, natural value of every human being.

Dignity is a moral relationship of human being to him/herself, society and individuals. It expresses an idea about value of every person as a free and autonomous human being. Formation of one's dignity is founded on self-recognition and evaluation of person's abilities and possibilities of realization of ideas and goals related to the meaning of life. Requirements of the individual to him/herself are based on the dignity, meaning that one must act in a way that wouldn't degrade one's dignity. Ethical principle of human dignity, as accepted in health care, is maximum satisfaction of eligible human needs. In medical practice we can encounter many situations that come to contradict this principle, like basically any damage of health, life-threatening situations, euthanasia, suicide, murder of an unborn child, drug abuse, or some cases of research with participation of human subjects. Factors degrading the dignity of the patient, as a sick person are:

- the very fact of the presence of the disease,
- feeling of guilt for own disease, changes of appearance,
- invasion of privacy during the examinations and procedures,

- invasion of privacy during the participation in the clinical teaching,
- influence of drugs,
- undignified conditions,
- dependency on other people, complete subjection,
- informational isolation,
- social isolation,
- unethical behaviour of the doctor and nursing staff (arrogance, superiority, excessive self-confidence, indifference, disinterest, unsuitable communication, withholding of information),
- hopelessness, helplessness, feelings of worthlessness.

During the health care provision, it is mainly the physician, who holds the very strong means for restoration of dignity. He/she can do so, by kind approach, proper communication and by respecting the patients with all their needs and believes.

## 6 Informed consent

Informed consent is a voluntary agreement given by mentally competent patient for treatment, diagnosis, participation in a research or clinical teaching, for collection and use of any body component, etc., after being clearly and fully informed. To understand the application of informed consent it is also important to define who the patient is. Every person, sick or healthy, who is under the medical care or treatment is considered a patient. This also means that every preventive medical action, aimed to protect people's health, especially those with higher risk of certain disease or damage, requires informed consent. One of the main tasks of the physician by informed consent is to gain the patient for active cooperation.

**Declaration on the promotion of patient's rights in Europe**, document approved by WHO in Amsterdam in 1994 covers the issue of the informed consent as follows:

1. The informed consent of the patient is a prerequisite for any medical intervention.
2. A patient has the right to refuse or to halt a medical intervention. The implications of refusing or halting such an intervention must be carefully explained to the patient.
3. When a patient is unable to express his or her will and a medical intervention is urgently needed, the consent of the patient may be presumed, unless it is obvious from a previous declared expression of will that consent would be refused in the situation.
4. When the consent of a legal representative is required and the proposed intervention is urgently needed, that intervention may be made if it is not possible to obtain, in time, the representative's consent.
5. When the consent of a legal representative is required, patients (whether minor or adult) must nevertheless be involved in the decision-making process to the fullest extent which their capacity allows.
6. If a legal representative refuses to give consent and the physician or other provider is of the opinion that the intervention is in the interest of the patient, then the decision must be referred to a court or some form of arbitration.
7. In all other situations where the patient is unable to give informed consent and where there is no legal representative or representative designated by the patient for this purpose, appropriate measures should be taken to provide for a substitute decision making process, taking into account what is known and to the greatest extent possible, what may be presumed about the wishes of the patient.



8. The consent of the patient is required for the preservation and use of all substances of the human body. Consent may be presumed when the substances are to be used in the current course of diagnosis, treatment and care of that patient.
9. The informed consent of the patient is needed for participation in clinical teaching.
10. The informed consent of the patient is a prerequisite for participation in scientific research. All protocols must be submitted to proper ethical review procedures. Such research should not be carried out on those who are unable to express their will, unless the consent of a legal representative has been obtained and the research would likely be in the interest of the patient.

However, in the medical practice the requirement for the informed consent can raise problems in specific situations. For example, the consent of mentally incompetent persons as defined by law (children, some psychiatric and elderly patients) is given by the legal representative. In life threatening situations, when the patient is unconscious or in the shock, the consent is simply expected. Another problem raises the question of sufficient mental capacity of the patient and on the other side the ability of the physician to reach the full understanding of the information.

Another legal aspect giving effect to the autonomy of the patient is an advance directive, which includes two types of documents, living will and health care power of attorney (health care proxy). Whereas the living will allows person to document instructions regarding preferences for medical care if the person is unable to make decisions, in case of the health care attorney this decision-making is referred to another person, designated by the patient (Chapter 9). Even though these forms of expression of patient's autonomy regulates the action of medical professionals in certain situations, they also bring with it many ethical and legal problems.

If the patient refuses to give the consent for medical service, doctor must ask for this refusal also in a written form, which is officially called **negative reverse**. The situation can arise, where patient refuses to sign anything. In such case, this document must be signed by the physician, as well as two other witnesses present. But it must clear, that negative reverse doesn't relieve the physician of his/her duty to provide the needed health care, for example in cases where patient refuses only certain diagnostic or therapeutic procedure. Specific situations in which physician doesn't need patient's agreement for performing needed medical intervention are when saving the life of the child, in case of treating diseases with state ordered mandatory treatment (tuberculosis, sexually transmitted diseases, etc.), in treating

mentally ill people who are danger to themselves and their surroundings and lastly when the patient is unconscious and requires an emergency care.

Informed consent represents an overarching point in medical ethics, yet reaching it can be sometimes difficult. Health care providers need to be sure that the patients understand their conditions and the options for treatment before any procedure begins. Therefore a proper communication is essential. The physicians must carefully describe the diagnosis and possible treatments to their patients and allow them time for questions. Information provided must be full and appropriate. Asking for patients' feedback helps in developing a welcome sense of partnership. Sometimes going through the certain procedures with the patient is better performed by using a written form. Communication with the patient also requires physician to be aware of religious or cultural differences that may affect understanding. Entry about the conversation, as well the informed consent itself must be a part of patient's medical record.

## 7 Ethical issues in pediatrics

In health care children represent a separate group of patients. Child age has its specific differences related to physiological and social development, as well as the legal status. As stated by law, every human being younger than 18 years old is considered to be a child. Child age itself has different stages –newborn, infant, toddler, preschooler, school-aged child, and adolescent. Its characterized by high development potential with lack of experience. Based on that, specific ethical requirements apply in pediatric health care. According to the age, physical and psychological maturity, the child is more sensitive and vulnerable in comparison with the adults. Also the children are dependent on the other people (parents), and they are particularly disposed to childhood illnesses, with the most difficult period of their lives being puberty and adolescence. The best way how to fulfil the ethical requirements in relationship doctor – child patient is to respect the children's rights, as well as their physiological, psychological and emotional needs.

The first international consensus on the fundamental principles of children's rights represents a *Declaration of the Rights of the Child* (UN, 1959). The legal status of the child is defined in *Convention on the Rights of the Child* (OSN, 1989), however its interpretation differs among countries or regions. Some people still insist that the value of a person is acquired with age, and working (productive) ability. Even the belief that children don't have full human rights still exists.

One of the most important documents regulating the medical ethics in pediatric health care is **The European Association for Children in Hospital (EACH) Charter** (1988), which includes 10 articles:

- 1) Children shall be admitted to hospital only if the care they require cannot be equally well provided at home or on a day basis.
- 2) Children in hospital shall have the right to have their parents or parent substitute with them at all times.
- 3) Accommodation should be offered to all parents and they should be helped and encouraged to stay. Parents should not need to incur additional costs or suffer loss of income. In order to share in the care of their child, parents should be kept informed about ward routine and their active participation encouraged.

- 4) Children and parents shall have the right to be informed in a manner appropriate to age and understanding. Steps should be taken to mitigate physical and emotional stress.
- 5) Children and parents have the right to informed participation in all decisions involving their health care. Every child shall be protected from unnecessary medical treatment and investigation.
- 6) Children shall be cared for together with children who have the same developmental needs and shall not be admitted to adult wards.
- 7) There should be no age restrictions for visitors to children in hospital.
- 8) Children shall have full opportunity for play, recreation and education suited to their age and condition and shall be in an environment designed, furnished, staffed and equipped to meet their needs.
- 9) Children shall be cared for by staff whose training and skills enable them to respond to the physical, emotional and developmental needs of children and families.
- 10) Continuity of care should be ensured by the team caring for children.
- 11) Children shall be treated with tact and understanding and their privacy shall be respected at all times.

In pediatric health care there forms a relationship between more people – the child, the parent(s), and the doctor. This three-dimensional relationship is more complicated, because it involves rights and interests of the child, and responsibilities and authority of the parents in interaction with the doctor's duties. The child, whether sick or healthy comes to the hospital accompanied by adult/s, therefore as an object, not as a subject. That is why the trust in the relationship of the doctor and the child patient is difficult to develop. Psychological state of the child during the hospitalization is influenced based on his/her age, and also on the selected diagnostic and therapeutic procedures. Many factors can have psychological effects on the child, most of all the separation from the family (parents, siblings), separation from the society, friends, disruption of daily regime (awake – asleep). The children are affected by various sound, light or tactile stimuli, painful treatment and diagnostic methods, or administration of pills affecting their psyche and behaviour.

Principles of dealing with psychological problems of the child patient during the hospitalization can be summarized as follows:

- family should be with the child as often and as long as possible,
- communication and physical contact with the child, not only during the treatment and nursing provision (even unconscious children),
- if the child becomes fond of someone from the staff, he/she should be allowed to be in contact with that person if possible,
- introducing ourselves to the child (who we are, what we do), call the child by his/her name,
- respect the daily regime (awake – asleep),
- cooperation with the child, explaining every treatment and diagnostic procedure, asking the child for permission, making the child believe that he/she has some say in this event,
- including the child in the collective of hospitalized children,
- the child must be allowed have some things from home (toys, notebook),
- parents can bring their child's favourite food,
- finding out from parents some specifics of child's behaviour, stereotypes,
- during hospitalization not trying to wean the children off their habits.

One of the basic requests of pediatric health care is a fight against the pain, prevention and suppression of the pain. Fear of pain is the main emotion of the child regarding illness and its treatment, because the child cannot intellectually accept the pain as part of the disease and its treatment. Prevention of pain is therefore the main indicator of the pediatrician's ethical and human qualities. The child should be carefully prepared before any painful procedures, and need to know that the pain is only temporary and that we are trying through this pain to help them heal.

Illness and hospitalization of the child, especially in the critical condition or with an oncologic diagnosis, strongly affects the parents, it represents an enormous burden which lies in seeing their child suffer. The parents are also traumatized by other means, like drifting between hope and desperation, lack of sleep, disruption of life and work regime, visits at hospital. The first information about the diagnosis of their child often causes shock, sadness, and anxiety. Subconsciously they can be angry with the child because of his/her illness, when they realize that, they start to blame themselves, creating a vicious circle.

It's important to realize that illness of the child influences all the members of the family, including siblings. They also need to be informed about the health condition of their sick sibling, and accompany parents during the visits at hospital. Some may feel abandoned and get angry with their sick sibling. Parents should encourage them to communicate and make physical contact with their sick sibling. However if they don't feel comfortable they must be allowed to leave the hospital room. Another requirement for dealing with the siblings is to inform them about the death of their sick sibling, never hide this information from them. In pediatric health care the principle "*ars medica*" applies –always adjust to the state and needs of the child patient, as well as to the actual mental state, needs and abilities of the parents.

Biomedical research with participation of children as the subjects is a specific ethical problem in pediatric health care. Only therapeutic research, with the direct benefit for the subject involved, risk minimization and undertaken together with the patient's care can have children as subjects. Such research must also have the benefit for all children in general. If the equivalent research can be performed with adult patients, performing one with children is not acceptable. Basic conditions apply, as for every research involving human subjects, and that's the informed consent of the subject, in this case of both the child and the legal representative, approval from the Ethics Committee, and compliance with the international regulations concerning biomedical research (Nuremberg Code, Declaration of Helsinki, etc.).

## 8 Elderly patients and the risks of their hospitalization

Improved standard of living combined with the development and accessibility of the health care contribute to the prolonging of the average length of life. Number of elderly in the population is increasing and this brings with it the need to adequately react to their needs and requirements.

Old age is defined as the later part of life, the period of life after youth and middle age, with the typical regressive changes of the structure and functions of the human body, accompanied by decreasing of strength and power. Most countries in the world have accepted the chronological age of 65 years as a definition of elderly or the old person. More detailed classification of elder age could go as follows:

- 45 - 59 years – older adult age,
- 60 - 74 years – old age,
- 75 - 89 years – advanced old age,
- 90 years and more – longevity.

Classification of elderly according to their attitude towards the active lifestyle and interest in the surrounding events distinguishes between positive and negative personalities. Elderly with positive personality are still active during their retirement, they are doing many free-time activities, they have hobbies, and are trying to be a part of the community. Elderly with negative personality live a more passive life, not doing any dynamic activity, they are just waiting for their "time" to come, and often it is very difficult to include these people in the community.

Elderly react more sensitively to any changes, and they adapt worse to the new conditions and unknown situations, which they encounter. Generally they refuse any change of the environment, and naturally the most optimal for them is their home environment. Hospitalization of old people brings with it many complications, which must be considered in advance and must be recognized in time. The most common risks in hospital by elderly patients are:

1. **Iatrogenic trauma** – negative reaction to treatment, pills, etc.
2. **Dietetic trauma** – different type of nutrition may cause obstipation or diarrhea, excessive eating during family visits.



3. **Dehydration** – one of the biggest risks, elderly patients very often don't even feel thirsty and they are not used to drink enough water during the day.
4. **Nosocomial infections** – respiratory infections (flu, bacterial pneumonia), mostly in winter and spring, but also blood contamination (hepatitis B).
5. **Psychosocial trauma** – as a consequence of separation from the family and home environment, restrictions related to staying in hospital.
6. **Physical trauma** – mostly injuries from falling (subdural hematoma, femoral neck fracture).
7. **Stay in bed** – may worsen osteoporosis, lead to muscle atrophy, joint pain, orthostatic collapse, especially dangerous are pulmonary thromboembolism, bronchopneumonia, urinary infections and pressure ulcers.
8. **Diagnostic risks** – because of polymorbidity and difference in symptoms of diseases in old age.
9. **Different opinions of the patient and the physician** – patient may exaggerate or fake the symptoms, on doctor's side there is often an inclination to underestimate symptoms.
10. **Inclination for complications** – proportional to patient's age, especially in hospital environment.
11. **Progressed age** – is a risk even during short hospitalization.
12. **Depression** – distorts the course of disease and has negative impact on prognosis.
13. **Relocation syndrome** – may arise as a result of hospitalization or relocation of patient from one hospital to another or relocation from one room or even bed to another. It will manifest by worsening of patient's condition and mental confusion.
14. **Geriatric maladaptation syndrome** – adaptation failure manifesting as depression, confusion, immobility, incontinence.

During the treatment of elderly it is important to realize that during the hospitalization they are losing a substantial part of their background (especially social status, life guarantee, privacy, rhythm of their daily life, freedom of movement and possibility of doing some activities). On the other hand they are gaining certain negatives, in the form of pain, weakness, uncomfortable examinations, impotence, fears and sometimes unpleasant company in the hospital room. The hospitalization of the elder patient should be properly indicated, and as short as possible, but under the observance of all the principles of good mental and physical hygiene.

## 9 Terminal illness, futile treatment and the end-of-life decisions

Terminal illness is a medical term to describe a disease that cannot be cured or adequately treated and is reasonably expected to result in the death of the patient within a short period of time. This term is more commonly used for progressive diseases such as cancer or advanced heart disease than for trauma. In popular use, it indicates a disease that eventually ends the life of a suffering patient. Progress in medicine enables new possibilities of prolonging the terminal phase of the illness even to several years, basically making it one of the periods of person's life. Science about the last things of human being is called eschatology. Under the term "*the last things*", we understand some specific physical and mental condition of the person, in connection with situations, attitudes, and activities, which are taking place in the final part of life, during the process of dying. It concerns the dying person, as well as the people around him/her. The main role in taking care of terminally ill people is to improve the quality of their life, with the fulfilment of their eligible needs and wishes. Human individuality brings with it a different reactions and forms of dealing with the information about the upcoming end of life. The way, in which the person reacts to this conflict depends in a significant amount on his/her personality.

Five stages of dying according to Kübler-Ross (1974) are:

1. **Disputing, denying**("No, not me!") – corresponds to a refusal of accepting the truth accompanied by isolation, shock and denial. Behaviour in this stage of dying is impulsive and uncontrollable. Physician must respect patient's denial and take it as a possible reaction.
2. **Anger, wrath, protest** ("Why me?") – in the stage of anger, the dying person recognizes necessity of the situation, and he/she is desperately defending himself/herself. The patient may seem ungrateful, with outbursts of anger, making it difficult for the nursing staff to take care of the patient.
3. **Negotiation**("Yes, me, but maybe...") – stage of wandering between the illusion and certainty. The physician should not support the speculations of the patient. This stage is a form of a delay before accepting the truth. The patient is interested in an alternative methods of treatment, requesting more effective treatment possibly in another hospital. This should not be viewed as a lack of trust.
4. **Depression, hopelessness, despair**("What does it mean for me?") – patients regret everything that they are leaving behind, they are realizing the end of their life.

5. **Agreement, acceptance of death** (*"Yes, me. If it has to be, then I'm ready."*) – this stage is however not present in all the dying patients. Acceptance of death is a reflection of human maturity and the example of human dignity.

In general it applies that every patient and his/ her relatives go through certain stages with the individual pace, while they can linger at one stage without being able to move on to another, or they can even go back to stage that they already overcame. In caring for terminally ill patients it is very important for physician and other health care providers to know their own attitude towards death and dying.

Intensity of dying process depends on the time it lasts and according to that we can differentiate three types of intensity of dying. In case of a sudden death(e.g. heart attack, heavy injuries), the realization of death lasts only a very short period of time or it is completely absent. Especially in cases of death of a young person, the relatives are faced with this information unprepared, they are shocked and often require some form of psychotherapy. Second group is represented by patients dying of chronic diseases of CNS (e.g. Alzheimer's disease), which don't cause physical pain and therefore the realization of death is very limited or again absent. Taking care of these patients is a long term process, which can be exhausting and lead to psychosocial problems. For the patient's relatives death is usually perceived more as a release. The last group consists of patients dying slowly and very painfully (e.g. oncologic diseases) and it represents the biggest problem for the nursing staff.

The purpose of health care is to improve the health and prolong the life of the patient. Modern technologies used in medical care nowadays enable us to prolong life even in conditions like coma, unconsciousness, artificial maintenance of respiration and blood circulation. In these cases a lot of people are asking the question, if it is really what's best for the patient. Where is the boundary between the artificial prolongation of life and letting the nature take its course?

**Futile treatment** is considered to be an ineffective treatment that cannot within reasonable likelihood cure the patient or restore a quality of life that would be satisfactory to the patient. This includes any treatment in which the burdens greatly outweigh any chance of success or benefit to the patient. Discontinuation of the futile treatment is following the interest of the patient, and aims to prevent violation of basic principles of medical ethics, including dying with dignity.

According to Firment (2014) decision-making on changing intensive care to palliative care has following requirements:

- include all the members of the health care team (doctors, nurses),
- the decision must be adopted by consensus,
- the decision is a responsibility of the attending physician,
- include family and relatives in the decision-making,
- delegation of the responsibility for the decision on relatives is unacceptable,
- discrepancy between the family and the health care team requires to invite another independent doctor or even Ethics Committee into the decision-making,
- regular review and reconsideration of the decision, even its change.

Ethical and legal considerations around the end-of-life decision-making represent a growing problem in the provision of health care. It can become a source of conflict between the health care professionals and patients, and/or their relatives. Ethical dilemma arises when basic principles of medical ethics stand against each other. The duty to preserve the life, and the duty to act in patient's best interest, or when the principle of autonomy conflicts with the principle of harmlessness. Legal regulations around the world provide different possibilities for end-of-life decisions.

One of the basic legal aspect of decision-making of patient's about their health is the **informed consent**. As a prerequisite for any medical intervention it also can be refused, and instead negative reverse stating the refusal of the provision of treatment is signed by the patient. It is important to remember, that as long as a person has decision-making capacity and is legally competent, he/she can refuse any form of medical treatment, including emergency care.

Then there is an **advance directive**, a general term that describes two types of legal documents:

- **living will,**
- **health care power of attorney (health care proxy).**

Living will is a legal document in which a person specifies what actions should be taken for their health, if they are no longer able to make decisions for themselves because of illness or incapacity. Health care power of attorney, or so-called health care proxy, is again a legal document in which the patient designates someone to be his/her representative, in the event he/she is unable to make or communicate decisions about aspects of health care.

Another legal aspect of end-of-life decision making is a form of **medical directive**. For example a physician's written order instructing healthcare providers not to attempt CPR in case of cardiac or respiratory arrest, called Do Not Resuscitate (DNR) order, or Do Not Attempt Resuscitation (DNAR) order. Although it is a written request of an individual, it must be signed by a physician to be valid. In countries, where there is no DNR order available, the decision not to resuscitate is solely in the hands of the physician and health care team.

Decision regarding resuscitation is governed by two important principles. The first is the principle of patient's autonomy based on the informed consent, advanced directive or medical directive (DNR, DNAR). If the patients' preferences are uncertain, emergency conditions should be treated until those preferences are known. The second is the principle of the futility. If the purpose of medical treatment cannot be achieved, the treatment is considered futile. Key determinants for determination of the futility are the length and the quality of life expected, and the duration of remaining in cardiac arrest. However, the judgement of the quality of life is very difficult and subjective, so it is necessary to discuss it with the patients and their relatives. Generally accepted rules on when to stop resuscitation involve the return of spontaneous circulation, ongoing asystole for more than 20 minutes in the absence of a reversible cause, when the rescuer is too exhausted to continue or in danger if continuing with resuscitation further, and of course in cases, where there are obvious signs of death apparent. Decision to stop resuscitation is often made on case-to-case basis.

## 10 Euthanasia and assisted suicide

Ethical issues of dying and death include requests for euthanasia and assisted suicide. And it is mainly due to the already mentioned problem of prolongation of life with new technologies and treatment methods, even though the possibilities of such aggressive life-sustaining treatment often don't improve the quality of life and therefore don't alleviate the patient's suffering. This also stands in the way of patient's right to be free from pain. Another problem is the isolation and loneliness of dying patients in hospitals and hospices. Euthanasia and assisted suicide are still viewed as an extreme approach to the suffering of terminally ill patients in most of the countries.

The term **euthanasia** comes from the Greek "*eu*" – meaning good, and "*thanatos*" – meaning death, with exact translation being "*good death*". Until today, there is no generally accepted and unified definition of euthanasia. Basically it is considered to be any activity or inactivity leading to death, carried out with the intention to cause death or accelerate its coming in order to stop the suffering of the terminally ill patient, done on the demand of the patient. Key aspects of euthanasia are:

- the presence of illness or disability, which is inevitability progressing to death,
- persistent pain and suffering,
- the reason for performing euthanasia is to stop the patient's suffering,
- it is an intentional act, performed by the physician on the request of the mentally competent patient.

These conditions clearly define which acts are considered to be euthanasia. However, philosophers, lawyers and some health care professionals are still trying to further define various types of euthanasia. For example differentiation to voluntary, non-voluntary (when patient cannot make a decision, or cannot make his/her decision to be known), and involuntary euthanasia (against the patient's will), which is basically considered a murder. According to the method of performing the euthanasia, another classification is available. The intentional act of health care provider, leading to the death of the patient or the acceleration of dying process is considered to be an active euthanasia. Example of such action is administering the lethal dose of certain medication or chemical to the patient. Passive euthanasia is discontinuing of the care with life sustaining measures with the intention of causing death or accelerating it, done in the patients' interest and on their request. It can be for example halting the medications, discontinuing the food administration and water supply to

allow the person to dehydrate or starve to death. However, there is a strong discussion whether this term should be used at all. Its ambiguity lies in the intention and the objective to be achieved. Passive euthanasia is not to be understood the same as the situation with futile treatment and palliative care. The assessment of cases of passive euthanasia can be very difficult and complex, important is to correctly assess whether or not there was a professional misconduct and the treatment was *non lege artis*. Also this differentiation of euthanasia is not legally recognized, so when it comes to euthanasia in medical practice and its legal form, it is still only the active euthanasia.

Opposite to euthanasia stands the term dysthanasia, which means withholding the inevitable end of life with assistance of medical equipment and medication.

In states, where euthanasia is tolerated or legally accepted under the strict conditions, following criteria must be respected:

- it is definitely proven that the patient's disease or disability leads to a foreseeable death,
- undoubtedly all the available treatment methods and resources have failed,
- only reason for euthanasia is to relieve the patient of suffering,
- euthanasia is performed by the physician who voluntarily agrees to do so,
- physician's decision must not be made under any social or economical pressure, or influenced by the lack of time,
- there is a clear, conscious and reasonable decision of patient to end his/her life.

However, these criteria are still being questioned by some.

*Can we be certain that the disease always leads to death?*

*Does the physician has the right to take the patient's life?*

*Did we really used all the available treatment and are we really not able to reduce the pain and suffering of the patient?*

*Can the patient in such condition even make a reasonable decision?*

The first country to legalize euthanasia was Netherlands, in 1993. The conditions for euthanasia to be performed include unbearable constant pain, with no prospect of improvement (however it doesn't need to be terminal illness), request for euthanasia must be voluntary and persist over time, patient must be informed about his/her health condition and its prognosis (informed consent), there must be a consultation with at least one other independent doctor, and the patient must be at least 12 years old. Patients between 12 and 16



years of age require the consent of their parents, the patients between 16 and 18 years of age do not require consent of their parents, but they need to be involved in the decision-making. Patients competent to make a decision may request euthanasia also by the way of an advance directive, to be later consulted in the event that they have become incompetent.

Second country to legally approve euthanasia in 2002 was Belgium. Conditions for patient requesting euthanasia are terminal illness or the unbearable and constant physical and mental suffering that cannot be alleviated. Request must be voluntary, well-considered and repeated, presented in a written form. This request must be reviewed by a commission and approved by two other physicians. In 2014 Belgium legalized euthanasia of children with no age limit. The child requesting euthanasia must be in medically futile condition of constant and unbearable physical suffering that cannot be alleviated and that will result in death in the short term. The child has to be conscious and able to understand what euthanasia means, both parents must agree with the decision, and again the request must be evaluated by a commission consisting of physicians and psychologists.

Legalization of euthanasia in Luxembourg was opposed by the Grand Duke of Luxembourg Henri, who refused to sign the bill into law. However, the Parliament passed a constitutional amendment eliminating the requirement of the monarch's signature and legalized euthanasia in 2009. Conditions for patients requesting it are similar to those in Netherlands. Request for euthanasia can also be a part of "*living will*" of the patient.

The last country to legalize euthanasia so far was Colombia, where The Supreme Court ruled that penalties for mercy killing should be removed and doctors be permitted to end patients' lives by the way of euthanasia already in 1997. However the guidelines for practice were not approved by the Colombian Congress until 2015, when they officially legalized active euthanasia.

In these countries euthanasia is considered to be a part of the health care, however the question is in place whether such action can ever be considered a *lege artis* procedure. Euthanasia is against the Hippocratic Oath, creating an ethical problem for physicians, who are by this oath sworn to protect the life of their patients at any cost. Based on that many physicians are refusing to perform the euthanasia. Its supporters are however claiming that to perform the euthanasia would not be an obligation of every physician, only a voluntary option.

On the other side people who are against euthanasia have several reasons why it should be forbidden:

- **Exactness of the diagnosis** – to determine a correct diagnosis can be in certain cases very problematic. Not every diagnosis can be determined by currently available diagnostic procedures.
- **Mental capacity, clear mind and thinking (mental disease)** – request for euthanasia and loss of interest in life is usually caused by depression due to hopelessness, loneliness, or the loss of dignity. Therefore it's important to treat this depression, to offer a spiritual support and attention of relatives.
- **Inadequate treatment of a chronic pain** – very often leads to a request of the patients to die. Health care facilities are being criticized for not treating the pain properly, and for providing inadequate palliative care.
- **Influence of relatives** – represents one of the biggest problems, and it is rightly feared that the "right to die" could one day become a *"responsibility to die"*. Poor and fragile people, especially elderly can be seen as a burden for their relatives, who can then put the pressure on them to fulfil their obligation.
- **Slippery slope argument** – or so-called *"thin edge of the wedge"*, where initially strict rules are case to case being broken, and the intention to help the suffering patient can in time become an alternative of natural death misused by society.
- **Euthanasia is a denial of the value and meaning of the human being**, and there is risk of euthanasia becoming involuntary in some cases.

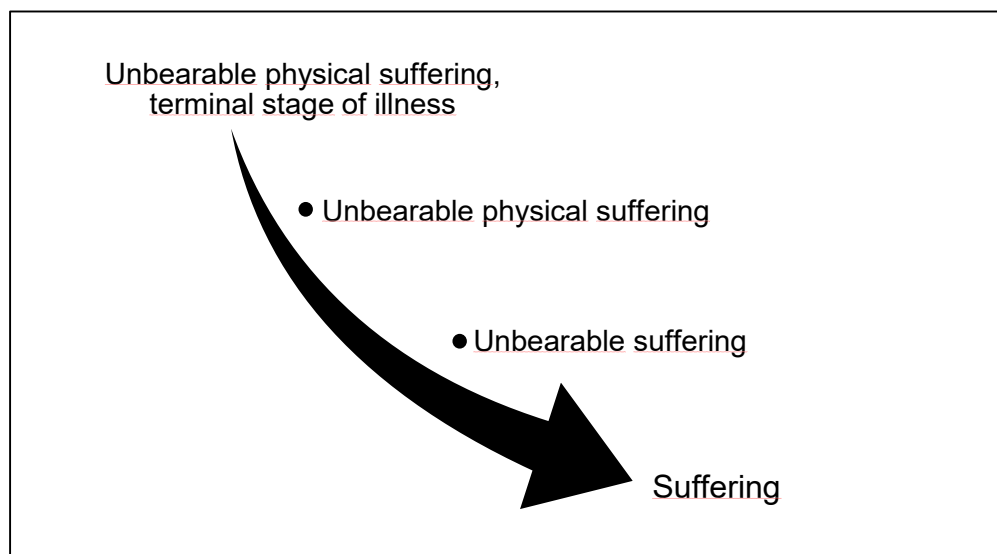


Fig. 2 Slippery slope argument.

The legalization of euthanasia in general could cause a change in the medical profession's traditional commitment to life. It could irreversibly damage the basic relationships patient – doctor, because the patient cannot be sure any more that the physician would always protect his life. The hopelessly ill patient has the right to adequate pain control and other symptom control and also the right to be mentally and spiritually supported by the nursing staff, as well as his/her family. Life with dignity at any stage is better than death with dignity.

In medical practice there are borderline situations, which are not considered in any way to be the act of euthanasia. One of them is already mentioned problem of futile treatment, which is the treatment without any benefit for the patient and therefore withdrawing or withholding of such treatment is not an euthanasia, nor active nor passive. Another such case is when a physician refuses to perform an operation, which was not indicated, is risky, painful and can significantly worsen patient's quality of life. In some cases technical equipment of the facility predetermines the range of health care that can be provided. Situation may arise when there is only one respirator available and two patients who need it, often concerning premature babies. It is not to be understood as euthanasia, when a physician can choose only one patient for the treatment, if he/she doesn't have the means to save them both. Part of the palliative care provided to terminally ill patients is often administration of opiates, however when tolerance develops in these patients, it may become difficult to set a proper dose to ease the pain. Unintentional opiate overdose is also not considered as euthanasia, mainly because it defies its definition by not being intentional.

Ethical issues of euthanasia are closely related to an **assisted suicide**, which has a potential to become more accepted than euthanasia itself. During the assisted suicide the physician is not assisting during the final step of suicide, he/she can help the patient just with the preparation of the act, such as the prescription of the drugs used for the suicide, explanation of how to use the drugs, etc. Basic differences between euthanasia and assisted suicide are:

- In case of assisted suicide, the assisting person (possibly a health care professional) only provides the means for committing a suicide (e.g. lethal substance), however this is applied by the person himself/herself. In case of euthanasia it is an act of another person, which causes death to one who requests it.
- Euthanasia is connected to terminal illness, or at least to an incurable disease, unbearable physical suffering caused by a disease. However assisted suicide does not require these conditions to be present.

- Another difference is in the requesting subject. While in case of euthanasia the person must be a patient, in case of assisted suicide the requesting person can be basically anybody.
- Euthanasia must be performed by a physician. The person assisting a suicide doesn't need to be a health care professional at all.

The oldest legislation concerning assisted suicide was established in Switzerland in 1941. It states that the assistance in suicide doesn't have to be provided only by the physician, and also that the recipient is not required to have Swiss citizenship. The later condition led to the problem of so called "*suicide tourism*", where people from all over the world are coming to Switzerland to die on the request. The legal regulation however has its criteria for people requesting the assisted suicide, and those are terminal illness, unendurable incapacitating disability, or an unbearable and uncontrollable pain. Netherlands, Luxembourg and Colombia legalized assisted suicide along with euthanasia. In the USA the first state to legally approve assisted suicide was Oregon, in 1994 with its *Death with dignity act*. After that Washington (2008), Vermont (2013), and California (2015) followed. Since 2008 the assisted suicide is also legal in Montana, but the request can only be approved via court ruling. The last country to legalize assisted suicide so far was Canada in 2016.

Unlike Netherlands and Luxembourg, *The Belgian Act on Euthanasia* doesn't cover assisted suicide, therefore it is officially considered illegal. However this law doesn't specify the procedure to the extent of exact definition of euthanasia and assisted suicide as was described above. In practice, euthanasia is performed by either applying the lethal dose of a substance to the patient by the physician, or the patient himself/herself drinks the euthanasia drink provided by the physician, which is by the correct definition the act of assisting in suicide.

The request for euthanasia or assisted suicide is usually a symptom of inadequate support and inadequate symptom control and represents a total failure of care. True solution of the issues of dying patients is not euthanasia but the skilled approach to care provided by devoted personnel, familiar with the treatment of the ailments of dying people.

## 11 Organ transplantation

Transplantation represents one the treatment methods in cases of a vital organ dysfunction and failure. It is a surgical operation where a failing or damaged organ in the human body is removed and replaced with a new one. Similar to transplantation is grafting, which is a process of removing tissue from one part of a person's body (or another person's body) and surgically re-implanting it to replace or compensate for damaged tissue. It's different from transplantation, because it does not remove and replace an entire organ, but only a portion of it. Historically, the first mention of transplantation comes from the writings of an ancient Indian physician Sushruta, where the plastic repair of a broken nose performed by using skin from others parts of the body is described. The first successful transplantation of the whole organ, specifically kidney, happened in 1950. However at that time organ transplantation hit the barrier in the form immunological reaction of the body to the foreign material. Only by acquiring more immunological knowledge, and developing new surgical techniques and medications, clinical practice entered the times, where it is possible to transplant vital organs and save the patients from imminent death. Progress in transplantation brings with it many ethical and legal considerations. Each operation is preceded by a long list of waiting candidates, usually with the lack of suitable donors, and there is also a number of risks, which all the participants must deal with.

Based on the ethical principle that the art ought to improve the nature, the physician can interfere with the integrity of the human body by removing the defects and failures even by organ transplantation under one condition. The natural essence and creative intelligence of human should not be suppressed.

Transplantation can be classified based on the origin of transplanted organ to:

- **autotransplantation** – transplantation of an organ from one part of the body to another in the same person,
- **allotransplantation** – transplantation of an organ from one individual to another of the same species with a different genotype,
- **xenotransplantation** – transplantation of non-human tissues or organs into human recipients.

Requirement for every transplantation is a donor. Depending on the vitality of a donor transplantation can be:

- **ex vivo** – from a living donor,
- **ex mortuo** – from a dead donor
  - a) *heart beating dead donor* (HBDD) – brain death,
  - b) *non heart beating donor* (NHBD) – respiratory and cardiac arrest.

Organ donation by a living person is an action of high moral value, and it always must be an altruistic action. For living donors there are certain conditions, that must be met before the donation. First of all it's the urgency for the acceptor, who cannot be successfully treated in any other way. Minimization of the risk for the donor must be ensured, and also that the donation doesn't violate the principles of integrity of donor's body, meaning that the corresponding function of the donated organ is preserved. Another condition is the favourable prognosis of transplantation for the acceptor for a long time, bad health condition and elderly age are contraindication. Commercial interests, discrimination, and exploitation (pressure of relatives on potential donor) in any way must be excluded. Before the donation, both donor and the acceptor must sign a voluntary and spontaneous informed consent. The donor needs sufficient time for decision, withholding of consent due to the interests in his/her own health is ethically correct, too.

There are three different types of living donor transplants:

- **direct** –the donor names the specific person to receive the transplant,
- **non-direct** – the donor does not name the specific person to get the transplant, the match is arranged based on medical compatibility with a patient in need,
- **paired** (paired kidney exchange) – two pairs of living kidney donors and transplant candidates who do not have matching blood types.

Living donors should be in a good overall physical and mental health and older than 18 years of age to be legally capable of consenting. No organ or tissue removal may be carried out on a person who does not have the capacity to consent (children). Slovak legislation covers exceptional cases where the removal of regenerative tissue from a person who doesn't have the capacity to consent may be authorized, and that is by following three conditions:

- there is no compatible donor available who has the capacity to consent,
- the recipient is a brother or sister of the donor,
- the donation must have the potential to be life-saving for the recipient.

Another specific situation in transplantation represents the infant with anencephaly as a donor of organs. Anencephaly is an untreatable condition, such babies are in state of permanent unconsciousness, and they usually die in few days or weeks after birth. However, there is a question of how to determine a brain death without the brain.

Basic conditions of organ donation from dead donors are in many ways similar to the ones applying in living donors. Again it is the urgency for the acceptor, with the favourable prognosis of transplantation, protection of the acceptor from the risks of infectious diseases, exclusion of commercial interests, informed consent of the acceptor, however also the absence of any legal barriers concerning the donation. Acceptors of the organs are selected based on medical (immunological) criteria.

For heart beating dead donors (HBDD), a reliable diagnosis of brain death must be determined. Currently there exist three different conceptions concerning brain death:

1. whole-brain death,
2. neocortical death (cerebral hemispheres),
3. brain-stem death.

In 1968, this committee of the Harvard Medical School published a report describing the following characteristics of a permanently non-functioning brain, a condition it referred to as "irreversible coma", now known as brain death:

- unreceptivity and unresponsivity – patient shows total unawareness to external stimuli and unresponsiveness to painful stimuli,
- no movements or breathing – all spontaneous muscular movement, spontaneous respiration and response to stimuli are absent,
- no reflexes – fixed, dilated pupils; lack of eye movement even when hit or turned, or ice water is placed in the ear; lack of response to noxious stimuli; unelicitable tendon reflexes.

In addition to these criteria, a flat electroencephalogram (EEG) was recommended. The committee also noted that the drug intoxication and hypothermia, which can both cause reversible loss of brain functions should be excluded as causes. After this definition of brain death, the HBDD became the major source of transplantable organs. However, the condition of brain death needs to be distinguished from the persistent vegetative state, in which clinical presentations are similar but in which patients manifest cycles of sleep and wakefulness. In case of NHBD an irreversible asystole clinically defines the point of no return in the process of dying.

Two legal approaches concerning dead donors are recognized world-wide:

- **OPT-IN** – only those who have given explicit consent are donors,
- **OPT-OUT** – anyone who has not refused consent to donate is a donor (presumed consent).

In some legislation systems family members are allowed to give consent or refusal, if the deceased neither allowed nor refused donation while alive. In countries, where OPT-IN system is being used (USA, Canada, UK, Ireland, Germany, etc.) the person can register as an organ donor in person, by mail or even online. For example in USA and UK everyone applying for a driving license is obliged to answer a question about joining the organ donor register. OPT-OUT system is used in 24 countries in Europe, including Slovakia, Czech Republic, Austria, Belgium, Croatia, Luxembourg, or Wales. In Slovakia, every citizen can make a statement about refusing donation of organs and tissues after their death for transplantation purposes. This refusal must be in a written form, and can be called off at any time during life. Ministry of Health manages the *Register of persons, who refused donation (register of non-donors)*, and Slovak centre for organ transplantation (SCOT, Bratislava) ensures that its being followed.

One of the major ethical issues of organ transplantation is disproportion between demand and supply of organs for transplantation, especially concerning kidneys. Health care institutions are poorly motivated and not every possible donor is used. This situation leads to an illegal international organ trade, especially in undeveloped countries, where poverty can be a motivation for people to sell their organs. There are three main factors contributing to the rapid expansion of the organ trade. The first is the rising international demand for organs as thousands of people are being added to transplant waiting lists. This is due to the exponential growth of the population and the increasing numbers of people suffering from life-threatening illnesses. Second factor is represented by high rates of people living in poverty, and the third factor is globalization involving the development of new technologies that make it easier for people to connect with each other anywhere in the world. Main reasons why organ trade is viewed as highly unethical are:

- loss of human dignity,
- it supports the exploitation of the poor,
- reduction of the quality of health care provided to the donor and the recipient (inadequate screening for communicable diseases, wrong selection of organ),



- it is decreasing altruism of living donors and families of the deceased donors,
- it creates a room for corruption, unlawful and unjust access to organs and their distribution,
- undue profit to "businessmen" and physicians participating in organ trade.

Supporters of organ trafficking believe, that well managed organ trade and its distribution can lead to a decrease of mortality of people on waiting lists and reduction of overall costs of health care. They are proposing that national organizations should be established for regulation of organ trade and provision of consultations for patients, with informed consent ensured. For now, organ trade is forbidden in many countries and also by most of the religions. Any possibility of an economic pressure must be eliminated, no one can seek or receive financial or material reward for donating organs. Prohibition of financial gain and disposal of a part of the human body is stated in the *Convention on Human Rights and Biomedicine*, Article 21. However it's important to note, that some countries are now introducing a system of financial compensation for the families of the deceased organ donors. This is not a payment for donated organs, but the reimbursement of expenses for some services (e.g. funeral, travelling) and these payments don't go directly to the family but to institutions providing these services.

## 12 Thanatology

Thanatology is an interdisciplinary field of medicine, part of bioethics, dealing with processes of death and dying and with problems of terminal care. The name was derived from *Thanatos*, who was the God of death in ancient Greek mythology.

Ethical issues concerning dying, death, and the dead body itself can arise in many areas regarding the system of health care:

- resuscitation,
- statement of death,
- place of death,
- post-mortem changes,
- outer examination of the dead body,
- ordering and performing the autopsy,
- handling the dead body,
- donating the own body for the educational and research purposes,
- donating organs from the dead body,
- collecting organs, tissues and other samples from the dead body during the autopsy for additional examination,
- collecting organs and tissues from the dead body during the autopsy for scientific and research purposes,
- the presence of students and other people during the autopsy,
- identification of the dead body,
- exhumation,
- anthropology,
- mass disasters,
- confidentiality,
- dealing with relatives of the deceased,
- specific requirements for the communication.

## **12.1 Ethics of the external examination of the dead body**

The external examination of the dead body at the place of death is an important medical and legal action, one of the procedures concerning the death of the person. In most of the European countries, the external examination of the dead body is performed by the doctor, however in USA it is performed also by a non-medical, a specially trained public officer (coroner). The purpose of this examination is to determine the death of the person, the time of its occurrence and its cause. Often its role is to exclude or confirm the assumption that the death is a consequence of a crime. Upon the results of the examination, the doctor then decides whether to order the autopsy, or not. The examination requires a specific skills and knowledge regarding post-mortem changes, types and categories of death, as well as the responsible and ethical approach. The procedure must be systematic, documenting the place and the position of the body, its identification, examination of the clothes, evaluating the post-mortem changes, injuries, burns, scars, etc. No less important is the investigation of the scene of death, with measuring the temperature of the environment and recording the traces of the biological material and other evidence, such as written records, or a goodbye letter. It's necessary not to disturb the found evidence, its collection is the role of police investigators present at the scene of death. In case of certain objects, like ligatures in cases of deaths by hanging, it's suitable that they are delivered to the autopsy room together with the body. The external examination of the dead body can be performed with or without police being present, and the police can also order a forensic doctor to perform it, especially in cases of violent death, where the suspicion of other person's guilt cannot be excluded.

From an ethical point of view, one of the important aspect of the process of examination is also a proper communication with people present at the scene of death, whether in the hospital or some unknown place, usually people who found the body. Communication skills are needed to find out information on the circumstances preceding the death of the person. Sometimes the doctor gets into contact with the relatives of the deceased, and in this case communicating the importance and the legal responsibility of the ordered autopsy must be understandable and convincing, while respecting the personal values of the family members.

Any manipulation with the dead body must be performed with the preservation of its dignity, and the doctor must beware of any undignified action. Another important requirement is confidentiality regarding any information about the death of the person. One of the specific actions regarding external examination of the dead body at the scene of death is to advertise a funeral services, which is considered to be highly unethical behaviour.

## 12.2 Ethics of autopsy

Autopsy is a surgical medical act which consists of a systematic examination of the tissues and organs of a cadaver in order to determine the cause of death, and it represents the most important examination method of current forensic medicine. Because it is not possible to acquire the information gained during the autopsy by some other method, performance of an autopsy has its medical and legal justification:

- **medical aspects of autopsy:** finding out the cause of death, verification of the diagnosis made by the attending physician, clarifying the relevant circumstances of death and mechanism of death,
- **legal aspects of autopsy:** to confirm or rule out violent death, to confirm or rule out death caused by another person, provide a statement whether the signs of violence are in a connection with the death and whether the death could have been prevented.

Autopsy must always be complete, autopsy of only certain areas of the body, so-called partial autopsy doesn't have a sufficient value. Depending on its medical or legal intention, it is necessary to distinguish between the anatomical, pathological and medico-legal autopsy, which are different in terms of purpose and legal management. Anatomical autopsy is performed for the academic interests, like teaching and research purposes. Pathological (clinical) autopsy pursues the corroboration, explanation and completion of the known clinical diagnosis, and the cause of death. This type of autopsy is usually performed by the pathologist. Medico-legal autopsy is further divided to autopsy by medical care order and autopsy by criminal law order. In cases of violent or non-violent death, where the suspicion of other person's guilt is excluded, forensic doctor performs medico-legal autopsy by medical care order. Medico-legal autopsy by criminal law order is ordered in cases of violent death, where the suspicion of the other person's guilt is not excluded. It requires two forensic doctors (experts) to perform the autopsy, and the autopsy findings are presented in a form of an expert opinion.

The forensic doctor, or pathologist assumes certain moral responsibilities. He/she must always perform the autopsy with the necessary respect for the deceased, for their relatives, or for the clinicians who followed the case. It must be remembered that the human body doesn't lose its moral and ethical value even after death, therefore it's required to treat it with respect and dignity. Autopsy disturbs anatomical conditions of the body and therefore it must be carried out in a way that enables it to get the dead body in a state closest to that before autopsy. Signs of intervention cannot be seen especially on the face and other exposed areas

of the body. Another ethical requirement is to maintain confidentiality and good reputation of the person after death. Spreading the information about unpleasant, private and personal affairs related to the deceased person is unethical. Important to note is that confidentiality is required not only from doctors and assistants performing the autopsy, but from all the people present during the autopsy (students, policemen, etc.). It is highly unethical to make video or audio recordings in the autopsy room, or to discuss the circumstances surrounding the death on the social networks. Another ethical issue of the autopsy is the use of the dead body for teaching and scientific purposes. Consensus exists, that it can be ethically acceptable, if there is a benefit for future patients and there is no other way to achieve the objective. Even though during autopsy, the integrity of human body is already disrupted, ethical principles for the manipulation with the dead body must be followed. Doctors and the assistants performing the autopsy must exercise caution and care for their safety, it is required to use protective clothing, footwear, or other protective equipment. During autopsy it is acceptable to remove from the dead body the pacemakers, endoprosthesis and other objects that can be used in health care provision. However it's unacceptable to remove fixed dentures made from precious metal alloys from the corpse, as they are considered an integral part of the human body.

## **13 Ethical issues in obstetrics, gynecology and reproductive medicine**

In the light of fast development of reproductive medicine, obstetrics and gynecology represent medical fields with one of the most complex ethical issues related to its clinical practice. Reproductive medicine is defined as a branch of medicine that deals with prevention, diagnosis and management of reproductive problems. Its goals include improving or maintaining reproductive health and allowing people to have children at a time of their choosing, so-called planned parenthood. Reproductive medicine addresses issues of sexual education, puberty, family planning, birth control, infertility, reproductive system diseases (including sexually transmitted diseases) and sexual dysfunction. In women, reproductive medicine also covers menstruation, ovulation, pregnancy and menopause, as well as gynaecologic disorders that affect fertility. Methods of family planning can be divided into two larger groups, birth control methods preventing the pregnancy, and methods of assisted reproduction, trying to induce pregnancy.

### **13.1 Birth control methods**

Effectiveness of birth control methods is measured by the Pearl index, which represents the number of pregnancies to 100 women who used some method of the contraception per one year. The smaller the number, the more effective the method is. Most widely used method of birth control is hormonal contraception. Its mechanisms is based on inhibition of follicular development (ovulation) and alteration of cervical mucus in the means of its thickening, which inhibits sperm penetration. Until now it's still the most reliable method, with Pearl index 0,2-0,3. Hormonal contraception is also used for the treatment of menstrual disorders (dysmenorrhea, menorrhagia), polycystic ovary syndrome, orhirsutism. However this method is associated with high number of risks, and that is why it's considered to be ethically problematic. It leads to an increase of cholesterol levels, high blood pressure, obesity, diabetes mellitus, migraine headaches, hepatopathy, certain forms of cancer (breast, cervical) and formation of blood clots, with the risk of pulmonary thromboembolism. Therefore medical contraindications must be carefully considered before starting hormonal contraception. Other non-natural methods of birth control include barrier method, like condoms, diaphragm, or cervical cap with Pearl index ranging between 2 to 10. Barrier method can be used in combination with chemical contraceptives, represented by spermicides. However the toxicity and teratogenicity of chemicals used for this method, and also a small reliability, with Pearl

index being 2-10, make this method ethically problematic. More reliable is the use of intrauterine device (IUD), which induces a local inflammatory reaction in the endometrium, and by that disrupts endometrial receptivity to implantation. Its Pearl index is between 1-2, yet again there are certain risks involved, such as inflammatory gynaecological diseases, or even uterine perforation, making it also ethically problematic.

On the other hand, natural methods of birth control, so-called fertility awareness-based methods, have no ethical shortcomings, because they do not interfere with openness and nature of the intercourse. These methods require discipline and self-control in periodic continence. It can be for example Billings ovulation method (the cervical mucus method), which is based on careful observation of mucus patterns during the course of menstrual cycle. Cervical secretions starts approximately 6 days before ovulation due to the changes of sex hormones concentration. Pearl index of this method is 1-2, but if the woman is capable of detecting other symptoms of ovulation, like ovulation pain caused by changes of cervical consistency, index drops to 0,7. Then there is a temperature method, based on measuring basal body temperature (BBT), the temperature of the body when it is completely at rest and after exclusion of febrile illness. Increase of BBT by 0,4-0,7 °C (normal BBT is 36,1-36,4 °C) indicates the presence of progesterone in blood meaning that the ovulation has happened. Pearl index for this method is 1-3. The least effective of fertility awareness-based methods is calendar-based method (standard days method) with Pearl index 15-35. Only a woman whose most of the menstrual cycles are 26 to 32 days long can use this method. If cycles are irregular, than the method becomes ineffective and that's why it is rarely being used nowadays. All three of these methods can be used in combination, in a form of a sympto-thermal method, which lowers the Pearl index to 0,7-0,5. The last possible method of natural birth control is a withdrawal method (coitus interruptus), with Pearl index ranging from 3 to 10. However unlike above mentioned methods, this one cannot be completely ethically acceptable, because it disrupts physiological nature of the intercourse, and also can cause sexual dysfunctions.

A specific place among birth control methods belongs to sterilization. And that's because it is a surgical procedure that permanently prevents the pregnancy. In females it is performed by occlusion of fallopian tubes, in males by occlusion of vas deferens, through which sperms are transported from the epididymis to the ejaculatory ducts. Women mostly make up sterilization rates worldwide. Their motivations behind the procedure vary depending on demographic factors. While physical effects are the most commonly thought of, sterilization can also affect the psychological condition and family life of a person. The importance of

proper informed consent is accentuated by the International Federation of Gynecology and Obstetrics (FIGO) which also specifies the information woman must be provided with: *"Women should be adequately informed of the risks and benefits of any proposed procedure and of its alternatives. It must be explained that sterilization must be considered a permanent, irreversible procedure that prevents future pregnancy and that non-permanent alternative treatments exist. It must also be emphasized that sterilization does not provide protection from sexually transmitted infections."* In 2007, The American Congress of Obstetricians and Gynecologists also established ethical recommendations for sterilization to following:

- informed consent (written only), with enough time between providing the consent and performing the operation, to allow the possible change of mind,
- the woman to be interviewed without family members present,
- socialization training, sexual abuse avoidance training, family therapy and sex education to be considered as alternatives to sterilization,
- a reversible long-term form of contraception, such as the intrauterine device (IUD) or other implants to be considered, as they may be preferable to sterilization.

Forced sterilization constitutes an act of violence, whether committed by individual practitioners or under institutional or governmental policies.

In relation to planned parenthood it is in place to discuss also the topic of abortions. Abortion is defined as a premature expulsion of the foetus from the womb before pregnancy reaches full term (40 weeks). There are two forms of abortion:

- **miscarriage or spontaneous abortion** – happens naturally, up to 50% of conceptions end this way, usually in the first few months, often even without the mother knowing she was pregnant,
- **procured (induced) abortion** – deliberately ending the pregnancy.

FIGO defines the induced abortion as the termination of pregnancy using drugs or surgical intervention after implantation and before the conceptus has become independently viable (WHO definition of a birth: 22 weeks menstrual age or more.). Approximately 205 million pregnancies occur each year worldwide. Over a third of pregnancies are unintended and about one-fifth end in induced abortion. Most abortions result from unintended pregnancies. There are approximately 42 million induced abortions performed per year.

The most common reason for termination of pregnancy can be divided into four categories:

- **eugenic** – when it's very likely that a child will be born with severe disabilities,



- **ethical** – rape, incest or some other criminal offense leading to pregnancy,
- **social** – single mother, poor financial conditions,
- **therapeutic** – when health of the woman or the child is in danger.

The decision of a woman to terminate the pregnancy can be limited by either the objective possibility, meaning the decision based on her health condition, or the subjective ability to choose, and to be able to take the responsibility for her choice. Question on allowing the abortion can be approached from various points of view. For example the ethical assessment of the abortion is a matter of conscience of every woman. Control through legislation on the other hand excludes the evaluation based on moral criteria. If the authority decision-making is allowed, it may lead to a degradation of the personality, depriving it of moral responsibility. And then there is also a differentiating principle, which depends on the period when abortion is performed. Abortion in an early time period of pregnancy has more of a liberal views, however abortion in the later stages of pregnancy is being met by more conservative opinions.

WHO issued a statement on the abortion and reasons for it:

- ✓ abortion should not be the only method of planned parenthood,
- ✓ prohibition of the abortion in the name of an abstract respect for life is a simplification, which doesn't accept possible consequences,
- ✓ human life as an important value has its social and spiritual dimension, and it's social quality.

Ethical issues of abortion involve around the rights of pregnant woman, rights of the unborn child and also the rights and responsibilities of the physician. In cases of pathological pregnancies, where the life of mother or the child is in danger, the physician has to perform the abortion. However if it is the abortion on request, the physician has the right to refuse to terminate the pregnancy. Abortion can have the negative consequences for the woman, by causing complications, which can in worst cases lead to sterility, also feelings of guilt for the decision she made. And then there are also the consequences in the national population politics, leading to negative reproduction, and predominance of old people in the population. Probably the most discussed ethical issue of the abortion is the question on what and when is the beginning of human life, and at what point and for what reasons do we have an obligation to respect and protect that life.

*When does human life begin?* To answer this question is important not only from medical point of view, but also from the legal and political one, especially in relation to public political debates on abortion and embryonic stem cell research. When in the course of prenatal development a new human being comes into existence is not an easy question to answer. It has been answered in many ways throughout history, based on the understanding of human development available at any given time. Modern science indicates that the beginning of life occurs sometime after the fertilization of an ovum by a sperm cell, yet fertilization itself is surprisingly difficult to define.

The point at which fertilization ends and embryonic development commences is commonly placed at "*syngamy*", the time when the membranes surrounding the nuclei derived from the sperm and the egg break down in preparation for the first cell division. According to Shannon and Walter (1990), once the biological development results in the formation of the zygote, there is a living entity which has the genotype of the human species. The key feature of a human pattern of development is its organization towards the production of a mature human body. Condic (2008) believes that the two-cell embryo has this ability. Some push the onset of life to even later period, to the formation of specific structures or the onset of specific developmental processes. According to McCormick (1991) the developmental individuality is established once the attachment to the uterine wall is completed, sometime during the third week after the completion of fertilization. Scientists concur that distinction must be made between the genetic individuality and developmental individuality. There is some chance that genetically unique life implanted on the mother's uterine wall may further divide so that twins, triplets or other multiple births will result.

The fact that life is truly a continuum further complicates the question of when a new life commences. The continuum of cellular life, with living cells giving rise to new types of cells and ultimately to new individuals, has led some to conclude that the question on "*When does life begins?*" is unanswerable.

### **13.2 Assisted reproductive technologies**

Assisted reproductive technologies (ART) involve all the treatments and procedures that are used for the purpose of achieving pregnancy. There are currently several of these method in use, including artificial insemination (AI), in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT), or zygote intrafallopian transfer (ZIFT).

Artificial insemination is the process of injecting washed sperm directly into the uterus with the use of a very thin flexible catheter placed in the cervix. There are two types of artificial insemination:

- insemination **by a husband** (AIH) – *homologous*,
- insemination **by a donor** (AID) – *heterologous*.

In case of AID, the sperms are obtained from a known donor who must be "unknown" the same time. The donor must not be relative, he should be over 18 years old and preferably have his own children. Tests for absence of chronic diseases and familial abnormalities should be carried out before donation. Ethical problems of AI are mostly concerning heterologous insemination. The sperm donor must remain anonymous, and cannot know the fate of his child, meaning also that he reproduces without responsibility towards the child.

In the process of in vitro fertilization (IVF) the mature eggs are collected (retrieved) from woman's ovaries and fertilized by sperm in a lab. Then the fertilized egg (embryo) or eggs are implanted in the uterus, in the process called embryo transfer (ET). There are following possibilities of performing the IVF method:

- the woman's own ova is fertilized by her husband's sperm and re-introduced into her uterus,
- the woman's own ova is fertilized by a donor sperm and re-introduced into her own uterus,
- the woman's own ova is fertilized by her husband sperm and returned to another ("surrogate") woman's uterus, so-called *gestational surrogacy*,
- the woman's own ova is fertilized by donor sperm and returned to a surrogate woman's uterus,
- an infertile woman may have another woman's ova implanted to her, fertilized either by her husband or by a male donor.

The main ethical problem of IVF and ET represents the moral status of an embryo. Because if the embryo is considered a non-repeatable biological and spiritual base of human individuality, then these methods of assisted reproduction are ethically doubtful.

Gamete intrafallopian transfer is a method where gametes, both eggs and sperm, are injected into the fallopian tubes using laparoscopic surgical technique transfer. In zygote intrafallopian transfer fertilized eggs (zygotes) are laparoscopically injected into the fallopian tubes, therefore this method works in combination with IVF.

Leftover embryos after a cycle of IVF are stored by a means of cryopreservation. In the rapid development of assisted reproductive technologies another ethical issue arises, and that

being the oocyte and embryo donation. Not only ethical consensus is lacking in this topic, but also a proper legal regulations have not yet been established. Gamete and embryo donation poses many ethical problems. Commercialization, exploitation, and the financial gain are the main problems of the current practice of this donation. What must be considered is the principle of autonomy of each party, involving the right for autonomy and privacy of the parents, the right for privacy of the donor, and the right of the child to know his/her origins. Different regulations on the gamete donation market around the world could also cause the creation of "*reproductive tourism*". Even possible alternatives of donor eggs, like obtaining the eggs and ovaries from aborted female fetuses, or donation of eggs and ovaries after woman's death are very ethically problematic.

No society has been neutral about reproduction. Ethical issues of assisted reproductive technologies represent the aspect of separation of sex from reproduction, and sometimes the reproduction with the involvement of the third party. On one side stands the ideology of religion with its definition of the status of embryo as a human being, and the sanctity of family's genetic lineage. On the other side, utilitarian principle in supporting the assisted reproduction, claims that it is done in the best interest of the child, and it's what's best for the whole society. The principle of autonomy would suggest that to use assisted reproductive technologies is a part of our reproductive freedom. But what to do, when a woman requests the implantation of seven embryos? Another issue is the success rate of assisted reproductive methods in general. World-wide the average percentage of ART cycles that led to a live birth is approximately 40 %. Assisted reproduction can be expensive and time-consuming for the couples. And also there are possible risks and complications, most commonly it's the high incidence of multiple pregnancies. However it has allowed many couples to have children, that otherwise would not have been able to conceive. Which gets us to the issue of eligibility, and the question on who is able to profit from ART. Should it be all infertile couples, married or not, single women without partners, or also gay and lesbian couples? Is it ethical to allow menopausal women or HIV-positive women or couples to use assisted reproduction?

### 13.3 Surrogacy

Surrogacy ("*womb renting*") is when another woman carries and gives birth to a baby for the couple who wants to have a child, the intended parents. There are two basic types of surrogacy:

- **gestational (GS)**, where the child is not genetically related to the surrogate mother. Based on the origin of gametes, various possibilities are available:

- embryo from both intended parents,
  - egg donation (embryo from intended father's sperm and a donor egg where the donor is not the surrogate),
  - donor sperm (intended mother's egg and donor sperm),
  - donor embryo (leftover embryos from IVF cycles of other people).
- **traditional**, where the surrogate is naturally or artificially inseminated with the intended father's sperm/donor sperm.

Another classification of surrogacy differentiates between gainful (commercial) and altruistic one, where the surrogate doesn't receive any financial compensation. Payment for surrogacy is allowed in some countries, and of course it represents one of the ethical problems concerning surrogate motherhood. But probably the biggest ethical question of surrogacy is who is actually the mother of the child. The answer of this question is in most countries included in their legislation. In Slovakia the Act No. 36/2005 on family defines the mother of the child as the woman who gave birth to the child, which indirectly excludes the possibility of surrogate motherhood. However the same definition is included in the legislation of the United Kingdom, even though the altruistic surrogacy is legal there. After the birth of the child, the intended parents need surrogate to reassign parenthood to them (the parental order), which she can of course refuse upon changing her mind. Same goes for Russia, where even commercial surrogacy doesn't guarantee transference of the rights to the baby to the paying clients. In California legal parental rights of the intended parents can be established prior to the actual birth of their child. Ethical issue arises also from the existence of surrogacy tourism, and the problem of the citizenship status of children whose birth and intended parents reside in different countries. Should the babies receive the citizenship of the birth country, or are they to be without nationality ("stateless") until the intended parents take them to their country? And at last, what to do if babies are born with disabilities or genetic disorders? The fight over parenthood might take a completely different form, with both the intended parents and a surrogate refusing to take care of the child.

### 13.4 Pro Life versus Pro Choice

Pro-Life is a movement pursuing negative view on bioethical issues like abortion, artificial insemination, embryo research, euthanasia, contraception and the death penalty. This movement is proclaiming the need to protect the life from the time of conception until the natural death, and is rejecting practices that could in any way intervene with this process. The

philosophy of the movement is based in particular on the teachings of Christianity, and the membership base is composed mostly of their supporters. The major international establishment of Pro-Life is *Human Life International*.

The main argument of Pro-Life movement and organizations promoting it, is the value of human life and human dignity. ProLife supporters believe that human life begins at the moment of conception and rights of an unborn child should be protected. Abortion is considered as a murder. Their view on the issue of euthanasia and suicide is based again on Christian belief that the life is a gift from God and man has no right to terminate it.

Pro-Choice represents a movement for the right of every woman to decide freely about her pregnancy. It promotes the right of couples to family planning and right of every child to be born as wanted and loved being. To have a baby is considered to be a responsible decision and therefore Pro-Choice supports the idea of contraception or abortion.

Probably the most famous organization supporting the ideas of Pro-Choice movement is International Planned Parenthood Federation (IPPF). It is a global non-governmental organization with the broad aims of promoting sexual and reproductive health, and advocating the right of individuals to make their own choices in family planning. IPPF provides help, advice, services and supplies relating to any aspect of sexual and reproductive health. These services are delivered through an IPPF Member Association (MA), and currently there are 149 MAs working in more than 189 countries.

## 14 Biomedical research

The premise "*today's research is tomorrow's healthcare*" expresses the meaning and purpose of biomedical research. The main role of research in medicine is to improve the provision of health care and to introduce new forms of treatment and innovative medical procedures. Every research brings with it not only scientific challenges, but also ethical and moral ones. Each step forward in science represents a necessity to answer the question, whether this step is valid in regard to medical ethics and ethics in general, and whether the risks of implementing this new knowledge are proportional to its benefit for biomedical sciences. Any biomedical research requires next to a proper scientific preparation of the project, also the assessment of complex ethical, moral and legal problems. Establishment of harmonized ethical and legal framework for science and research on national and international level represent a universally recognized need.

### 14.1 Biomedical research involving human subjects

Biomedical research is defined as purposeful human activity conducted to verify certain hypothesis about human body, aiming to gain new knowledge about protection and development of health, including theoretical knowledge, prevention, diagnosis and treatment. Method applied in research is not yet recognized as a *lege artis* approach. Such research can be conducted on humans, animals, tissue or cell cultures. Any research recognizes two basic methods, observation and experiment. Observation involves detecting and recording qualitative and quantitative properties of the phenomena that are being researched. During the experiment scientists monitor and record qualitative and quantitative changes in the action of the researched agent under specific and controlled experimental conditions. Depending on the relationship towards the person as a subject of the research, two types of research are recognized, clinical and non-clinical. The basic differences between the two types of research are listed in Tab. 2.

Tab. 2 Two types of research depending on the relationship towards the person as a subject of the research and their basic characteristics.

Clinical (therapeutic) research	Non-clinical (non-therapeutic) research
undertaken together with patient's care	undertaken on human subjects, however no indication for participation is needed
certain health condition is indication for participation in this research	its aim to contribute to general knowledge
focused on a new diagnostic, therapeutic and preventive methods	no direct benefit for the subject involved
direct benefit for the subject involved	

Another classification divides research to clinical and epidemiological. Typically experiment on animals, as well as on biological material of human and animal origin precedes clinical research on humans. Clinical research itself involves case reports, clinical trials, clinical experiment and controlled clinical experiment. Case reports are historically the oldest method of research, based on observation and documentation of individual diseases. Clinical trials are done on the purpose of improving diagnostics and to better understand all the physiological and pathophysiological processes in human body. Methods of clinical studies, whether invasive or non-invasive, can be morphological, functional, metabolic, microbiological and immunological. Clinical experiment always involves an interference with the integrity of human body, which must be beneficial for the patient, however it also represents a certain risk of health damage for the patient. This risk must be minimized as much as possible. The main purpose of the controlled clinical experiment is to create a control group. Results in group of subjects undergoing the experiment is analyzed and compared with the results of subjects in control group. Epidemiological research seeks to identify the patterns, causes, and control of disorders in groups of people. Most commonly studied are infectious, cardiovascular or oncologic diseases, atherosclerosis, diabetes, obesity and also drug addiction.

Biomedical research performed on human subjects is a very sensitive area of science, guided by strict rules. Thorough assessment by Ethics committee precedes the approval of every proposed research project. Basic conditions for biomedical research, which must be met before initiating the research are:

- **novelty** of medical hypothesis, which will be verified by research,
- **benefit / usefulness** for the general society,



- fulfilment of generally accepted criteria of **scientific quality**,
- the presence of **risks** associated with medical experiment,
- **approval** of the research by the competent authority,
- conducting research on living human beings only with the voluntary signed **informed consent**.

Principles of medical ethics (beneficence, harmlessness, autonomy, justice) must be followed during the research, with the requirement to respect and protect the dignity of the human being, as the subject of the research. The well-being of the subject must always exceed the interests of science and society. Since the first unethical experiments on humans, many internationally accepted codes and regulations have been established in attempt to protect the freedom, health and life of people participating as subjects in biomedical research. In 1947 *Nuremberg Code* was established, as the consequence of experiments on humans performed in second world war. As the first official document concerning research on human subject, it introduced basic and absolutely necessary requirement, which is informed consent of the subject, with the possibility to withdraw this consent at any time during the experiment. No less important was introduction of another rule, stating that research must not cause any physical or mental suffering to the subjects, and that the risk of health damage must be minimized. Another set of rules was accepted in 1964 with establishment of *Helsinki declaration*. It put emphasis not only on the protection of life and health of the subjects, but also on the protection of their privacy and dignity. Current requirements for the conduct of clinical trials in the European Union (EU), are implemented in Clinical Trial Directive – Directive 2001/20/EC and GCP Directive – Directive 2005/28/EC.

Part of every research must be also assessment of ethical questions surrounding the project and basic ethical requirements for biomedical research involve:

- social significance,
- professional qualification,
- necessity of the experiment,
- informed consent of subjects involved,
- readiness,
- awareness and guarantee for the research participants,
- reality for achieving expected results,
- required qualification and technological equipment of the research institution,
- risk minimization,
- responsibility for a potential loss.

## 14.2 Animal experimentation

Significant progress in medicine, introduction of new pills, therapeutic and preventive procedures is necessarily connected to the animal testing. The use of animals in various experiments has a very rich history, going back to times of Hippocrates, 400 years BC. Autopsies and experiments on animals were the main source of information on anatomy and physiology, which contributed to the development of medicine. Approximately until 19<sup>th</sup> century animals were used in experiments without ever admitting their role in benefiting the whole of humanity. In the same time activities against experiments on animals started in England and France. This led in 1876 to the establishment of the first Law on animals protection in United Kingdom, called "*Cruelty to Animals Act*". Even though animal experimentation has its reason, it still raises many ethical and legal questions, concerning not only their scientific use, but also breeding, hunting and killing of animals for food and clothing. Animal testing is generally accepted by scientific societies, however there are still many critical objections against the suitability of their use in research. Public and media are mostly concerned about the pain and discomfort of animals during the experiment. Various organizations for protection of animals are actively speaking against such animal testing , and are demanding such experimentations to be immediately and completely stopped. This opinion is very strongly held against the testing done for cosmetic products. Current society is divided into two groups regarding ethical stance towards animals being used in research. Group in favour of animal experimentation believes that it's acceptable if the suffering of the animals is minimized and benefits for humans are gained, which could not be obtained by using any other method. Group against animal experimentation believes that it is always unacceptable because it causes suffering to animals, the benefits to human beings are not proven, and that any of such benefits could be produced in other ways.

Nowadays society however cannot function without experiments on animals. Therefore, the rules for research involving animals states that it must always be:

- scientific,
- exactly described (including general care of animals),
- in connection with the human life or health,
- performed with absolute exclusion of torture,
- performed with optimal choice of species of animals (animal model of human disease),
- performed with minimal possible number of animals,

- performed with the use of micromethods by taking blood from the tail, operations with anaesthesia (pain prevention).

Animal experimentation is defined as the use of animal for scientific purposes. Experimental animal is considered to be any animal that is involved in the experiment. Animals, which are purpose-bred, meaning that they are bred specifically to be used in experiments, are called laboratory animals. Most commonly used animals are rats, mice, guinea pigs, rabbits, cats, dogs, monkeys, sheep and chickens.

Tab. 3 Similarities and differences between selected animal species and humans.

<b><i>Animal species</i></b>	<b><i>Similarity with human</i></b>	<b><i>Difference from human</i></b>
<b>Mouse</b>	Liver	Spleen
<b>Rat</b>	Spleen, pancreas	No gallbladder, different vascularisation of the heart and abdominal organs
<b>Guinea pig</b>	Spleen, immune system	Sweat glands
<b>Rabbit</b>	Spleen, immune system	Liver, lungs, sweat glands
<b>Cat</b>	Spleen vascularisation, skull topography	Spleen immunity, embryogenesis, sleeping, thermoregulation
<b>Dog</b>	Epiphysis, skull sinuses, kidney vascularisation	Bowel vascularisation, pancreatic ducts, thermoregulation
<b>Pig</b>	Dental tissue, retina, suprarenal glands, common metabolism	Liver, spleen, sweat glands

None of the animal model can fully replace the modelled object – human, and therefore certain amount of carefulness is required in extrapolation of results from animal testing on human population. Mistakes from the past serve as the example of how positive results obtained in animal experimentation don't necessarily mean the same response in human body. One of the most famous is thalidomide tragedy, where babies were born with severe malformations of extremities as the effect of this drug being administered to women during pregnancy. Thalidomide was tested only on animals as a harmless hypnotic. It has been proven that dogs have twenty times higher tolerance for drugs of dependence. Arsenic,

strychnine and toadstool, which can be lethal for humans are harmless to some animal species. With no doubt, the research with participation of human subject is always needed to confirm the results obtained during animal experimentation.

Criteria for the selection of experimental animal depend on the aim of the experiment, specification of holding for the particular species, genetic (immunobiological), qualitative and other special requirements (depending on gender, behaviour, etc.).

Set of ethical principles was established to ensure the ethical requirements for animal experimentation. Member states of European Union agreed to uphold the principle 3R (reduction, refinement, replacement), suggested by Russell and Burch in 1959.

**Reduction** expresses the requirement for reducing the number of animals used in experiments. Basic methods for implementing this requirement are sharing of animals, better quality of animals, improving the data analysis and sharing the data with other researchers.

**Refinement** considers the experiment to reduce animals' suffering by using less invasive techniques, better medical care and better living conditions.

**Replacement** of animals with alternative techniques such as:

**a) use of living systems** – in vitro techniques (the most safe is to use non-animal living systems), invertebrates (most commonly used alternative living systems for investigation of mutagenicity, teratogenicity, reproduction toxicity), microorganisms (substitution for conventional animal models of living system), plants (studies of molecular mechanisms and subcellular structures),

**b) use of non-living systems** – chemical methods (most commonly used model of non-living system requiring the use of various methods – analytical, immunochemical, etc.), physical and/or mechanical systems (application in teaching specific skills and/or responses to well-defined pre-established conditions),

**c) computer simulation** – alternative method, which could replace the animal experimentation, however it is still a very controversial statement.

Due to the effort to eliminate negative consequences during animal experimentation even more, it is recommended to abide by yet another principle – **responsibility**. It stands for professional liability and competence of the personnel conducting experiments on laboratory animals. A scientific fraud must be excluded. Principle **4R** must be respected in every research with participation of animals.

Non-desirable test performed on animals include needless cruelty on animals (e.g. slow drowning for testing stress), which has no scientific value and absolutely negative ethical value. Also needless repetition of tests without new results, experiments done for publicity, performing the experiment that has already been done by another scientist, or bad and obsolete equipment of the laboratory. Ethical problem of animal experimentation is also the use of animals in education (in the USA approximately 7-8 million animals are used per year). So called "*scientific torture*" from an ethical point of view is considered to be performing an operation without anaesthesia, burning, freezing, corroding, bruising, immobilization, simulation of car accident or fall, starvation, application of electricity, radiation, air pressure, infection, inoculation of malignant tumours, vivisection, or testing of new weapons and drugs on animals.

The freedom of animals during the experiment must be respected. Five basic principles of laboratory animal FREEDOM are:

1. Freedom from **hunger or thirst** (access to fresh water and food),
2. Freedom from **discomfort** (appropriate environment including shelter and a comfortable resting area),
3. Freedom from **pain, injury or disease**,
4. Freedom from **fear and distress**,
5. Freedom to **express (most) normal behaviour** (providing sufficient space, proper facilities and company of the animal's own kind).

The environmental conditions for laboratory animals include convenience (optimal temperature, place to rest, sufficient place for cleaning, stretching and movement), safety (proper supply of food and water, disease and injury protection, fear and anxiety protection), hygiene and proper training (the acquisition of skills required for comfortable and safe life).

The same as any biomedical research, animal experimentation has its legal regulations. Since 1986, the European Union has had in place a specific legislation covering the use of animals for scientific purposes – Directive 86/609/EEC. In 1997 *Protocol on protection and welfare of animals* was annexed to the Treaty of Amsterdam, and for the first time this Protocol referred to animals as "*sentient beings*". In 2010 the European Union updated and replaced the Directive from 1986 on the protection of animals used for scientific purposes by Directive 2010/63/EU, which has taken full effect from 1 January 2013. The aim of this new

Directive is to strengthen legislation and improve the welfare of laboratory animals, as well as to firmly anchor the principle 4R.

In terms of Slovak legislation the regulation of animal experimentation is included in the Act No. 377/2012 Coll. on the protection of animals used for laboratory or scientific purposes. Authorities providing the protection of animals are Ministry of Agriculture and Rural Development of the Slovak Republic, State Veterinary and Food Administration and Regional Veterinary and Food Administrations. Important condition for every researcher requesting an approval for scientific project involving animal experimentation has to undergo a training regarding the protection of animals used for scientific and education purposes.

## **15 Ethical issues in human genetics and genomics**

Genetics is a study of genes, genetic variation and heredity in living organisms. Its growing availability and use in medical practice brings with it a number of ethical and legal issues and challenges. The laws of genetics started to be explored only with the development of modern natural sciences. Even though it was evident to most that the diseases are not only caused by the external factors, any considerations of possible internal predispositions were speculative, or in the best case empirical. The founder of modern genetics is J. G. Mendel, who discovered the basic principles of heredity through experiments conducted between the years 1856 and 1863. Based on his findings, the rules of heredity are now referred to as Mendelian inheritance. Until the recent past, the main problem of genetics regarding the medicine was, that not many of the physiological characteristics are inherited according to the Mendel's rules. That's why they didn't play an important part in everyday medical practice. In contrast with medicine, in social sciences there was an overestimation of the meaning of the inheritance. This led to the creation of eugenics, as set of practices aiming to improve the genetic composition of the human race by alteration in genetic composition of an individual. The idea of improving the human population through a statistical understanding of heredity used to encourage good breeding was originally developed by Francis Galton in 19<sup>th</sup> century. Other foundational milestones in genetics and genomics are including a discovery of the role of chromosomes in heredity in 1933 by T.H. Morgan, discovery of the structure of DNA by Watson and Crick in 1953, or the determination of normal number of human chromosomes by Tijo and Levan in 1956.

One of the impacts of such discoveries was a start of Human Genome Project (HGP) in 1990. It was an international research project whose goal was to determine the DNA sequence of the entire human genome and to identify the genes it contains from both the physical and the functional standpoint. As an integral part of this project Ethical, Legal and Social Issues (ELSI) Research Program was established, and until now it remains the biggest ethics project in human history. The HGP was declared to be successfully completed in 2003, providing a scientific foundation for genetic manipulation.

## 15.1 Genetic testing

A genetic test is the analysis of human DNA, RNA, chromosomes, proteins, and certain metabolites in order to detect heritable disease related genotypes, mutations, phenotypes, or karyotypes for clinical purposes, like predicting the risk of disease, identifying carriers, and establishing prenatal and clinical diagnoses or prognoses. Consequently, genetic testing is gaining recognition for the many advantages it has to offer in the prevention, management and treatment of the certain diseases. Among their many uses, genetic tests most commonly present an opportunity for individuals to become informed about their genetic predisposition to a disease, and for couples to be aware of the possible genetic characteristics of their unborn children. Due to its informative potential, genetic testing raises some critical ethical, legal and social issues.

There are three basic types of genetic testing according to its use:

- **diagnostic testing** – used to identify or rule out a specific genetic or chromosomal condition and to confirm or rule out the diagnosis suspected due to the symptoms,
- **carrier testing** – used to determine whether a person carries a mutation causing genetic disorder (dominant / recessive/ X-linked),
- **predictive / presymptomatic testing** – used to determine whether a person has a genetic mutation associated with the late onset disorder (positive family history).

Certain aspects of genetic testing are posing ethical dilemmas. The first of all it is the ownership of genetic information. According to the rules and regulation in medical practice, the genetic test results can only be revealed to the patient. However, ethical problem can occur when a patient doesn't want to reveal to the other family members information, that can be important to them, especially about a disease treatable in a pre-symptomatic phase. On the other hand, some people don't want to know about the potential risks of a disease, in order to avoid anxiety and depression. This informational self-determination, as "the right not to know" must be respected. It also must be kept in mind that genetic testing has its limitations. In some cases it cannot provide reliable and definitive results, and also it cannot predict the severity of the condition or the age of the onset of the symptoms. Expression of the genetic information can be influenced by environmental factors or other genes. In such situations it can be difficult for the patient to make a decision about preventive treatment, especially in case of an irreversible intervention (e.g. mastectomy, ovariectomy). Another question is whether the results of genetic testing should be available to the insurance companies or government. Access to this genetic information may limit person's ability to obtain



employment in certain professions or to get life insurance, resulting in genetic discrimination. Development of genetic testing can also result in the change of medical practice in general. In future patients will come to hospital demanding preventive intervention based on genetic test results acquired by examination in private companies.

The role of genetic testing is also increasing in practice of gynaecology and obstetrics. Common practice nowadays is newborn screening testing, performed to identify genetic disorders which are treatable early in life. So called *dried blood spot* is used for diagnosis of congenital metabolic diseases. Prenatal testing enables to detect changes in a fetus's genes before the birth. Probably the most ethically controversial in this field is preimplantation genetic diagnosis (PGD). It is a diagnostic method used alongside assisted reproduction techniques, which determines whether a genetic abnormality is present in embryos created through reproduction technique.

PGD poses quite specific ethical issues. Opinions on this form of genetic testing are divided according to the subject of interest. First group is represented by people defending the interest of the child. They believe that by testing the child can be protected from unnecessary suffering associated with the severe hereditary disease, so-called "*wrongful life*". Second group protects the interest of the parents, pointing out the social and financial implications that may be the result of a "*wrongful birth*". The last group is focused on the interest of the society and its ability to control the genetic quality of the human population with embryo selection enabled by genetic testing. One of the most discussed ethical issue surrounding the PGD is its socio-economic aspect. For the society it would be of course desirable that less disabled children were born. However, with the widespread use of this method, the risk of faster development of eugenics may increase, by using PGD for less serious conditions or even non-pathological traits. Selection of embryos based on genetic testing will deepen already present discrimination and stigmatization of disabled individuals. The face of genetic counselling for couples undergoing assisted reproduction may change with the use of PGD. The current perception of counselling explicitly promotes non-directive approach, however when PGD is being applied, situations which require more directive approach may arise. For example, when there is a family with already one disabled child and the results of genetic testing show the high probability that another child be born with a disability. Parents' mental strength and their financial situation must be taken into account in decision-making. PGD definitely needs more complex counselling, which can hardly comply with the ideal of non-directiveness. The biggest medical dilemma of genetic examination is probably the decision to

end the pregnancy. Even though untreatable genetic abnormalities are detected, the physician must respect mother's will.

## 15.2 Gene therapy

Gene therapy is an experimental technique that uses genes to treat or prevent diseases. Currently it is only being tested for the treatment of diseases for which no other treatment options are available. Three possible methods of gene therapy exists. Replacement of a mutated gene that causes disease with a healthy copy of the same gene, inactivation of a mutated gene that is not functioning properly (repair), or introduction of a new gene into the body, which can to help fight the disease (addition).

Two types of gene therapy are:

- **somatic gene therapy** – correcting genes in just one person, the changes are not passed on to that person's offspring, because somatic cells are not reproductive,
- **germline gene therapy** – changes done in reproductive cells (egg, sperm), these changes will be passed on to that person's offspring.

The distinctions between these two types are central to an understanding of the ethical issues of gene therapy. Germ line gene therapy is a so-called "*open ended*" therapy, because its effects extend indefinitely into the future. An experiment in germ line therapy would be considered a tantamount to a clinical experiment on unconsenting subjects, violating the principle of autonomy of the affected members of the future generations. However a strong argument stands in favour of this therapy, that no unborn child, whether conceived naturally or artificially through IVF and germline gene therapy, is able to choose their genetics and whether they are born with or without a particular condition. It is true that it can correct a genetic defect once and for all, however its effects are too unpredictable and if another mutation is introduced it will also be passed to another generation. Another problem is that before germ line gene therapy would be applicable to medical practice it must be properly developed and tested, which would involve extensive experimentation on early embryos. In relation to such experiments, there is a still unanswered and heavily discussed question of when does a human life begin. If an early embryo is already considered to be a human being, it concludes that embryo experimentation is to be rejected and germ line therapy as well. In the view of moral pluralism in modern societies, the policies of each country differ in this respect. However due to many unanswered questions and risks concerning germ line gene therapy, this method is not allowed in most of the countries. On the other hand somatic gene

therapy is relatively uncontroversial, because it targets non-reproductive cells, therefore it doesn't raise the same ethical questions as germ-line gene therapy does. Ethical concerns of somatic gene therapy are not very different from those that apply in trials of any new experimental therapy (risk vs. benefit, informed consent, principle of justice in selection of subjects, protection of privacy and confidentiality of medical information).

Another important distinction between therapy and enhancement must be understood regarding the alteration of genes. There is a consensus that gene therapy should be used only as a therapy, correcting genes responsible for diseases as such, rather than the enhancement, meaning to improve human species. Should people be even allowed to ever use gene therapy to enhance basic human traits such as height, intelligence, or athletic ability? In view of this problem another question stands. Who decides which traits are normal and which constitute a disability or a disorder?

And at last, there is a problem common for most of the new experimental methods of treatment, and that is accessibility. Gene therapy is expensive and in the near term it's unlikely that the costs will be covered by health insurance. So will the high costs of gene therapy make it available only to the wealthy?

The result of a fast progress in gene alteration another controversial phenomenon arises. Genetic modification of embryos in process of IVF to ensure the presence or absence of particular genes or characteristics, creating children with artificially selected genome, so-called "*designer babies*". In countries where germ line therapy is allowed under certain regulations (China, UK), experiments with genetic modification of embryos are already underway.

### **15.3 Human cloning**

Cloning means creating the exact replica, artificial and identical genetic copy of an existing life form. The first ground-breaking success of cloning technology happened on 5<sup>th</sup> of July in 1996, when Ian Wilmut and a group of Scottish scientists announced that they had successfully cloned a sheep named Dolly. This success however stood on the 277 destroyed cloned embryos that were created and destroyed before Dolly was successfully cloned. Even then she was very sick and eventually had to be put down. In 2001 scientists of a small biotech company *Advanced Cell Technology* claimed that they created the first cloned human embryo for the purpose of obtaining embryonic stem cells. Nowadays, the human cloning still remains in its infancy. Although cloning technology has improved, it still has only a slim success rate, ranging from 1 to 4 percent.

There are two types of cloning in general, reproductive and therapeutic cloning. **Reproductive cloning** is performed with the express intent of creating another organism, that's why it is referred to as asexual reproduction. This method of cloning was used to create the sheep Dolly and other species of cloned animals. However, there has been no successful attempts to reproductively clone a human being. **Therapeutic cloning** on the other hand, is not performed to produce another organism, but only to harvest embryonic stem cells with the same DNA as the donor cell. Stem cells can be then used in research and treatment of some currently hardly treatable or even incurable diseases, like Parkinson's disease, Alzheimer's disease, diabetes, spinal cord injuries, or some types of cancer. However, in order to collect stem cells these generated embryos must be destroyed. In society, no consensus exists about the ethics of destroying a human embryo yet.

Most of the discussion regarding human cloning is focused on ethical issues of reproductive cloning. Probably the first arguments used against it are, that such cloning diminishes the sense of uniqueness of an individual and violates the respect for the dignity of the human being, considering that the person would be less respected because he/she could be easily replaced. Many scientists believe that no clones can be fully healthy, pointing out that cloning is highly unsafe. This statement is supported by the fact, that 95% of mammalian cloning experiments have resulted in failures in the form of miscarriages, stillbirths, and life-threatening anomalies. Another issue represents the possible impact on family relations. How will the families with cloned members look like, and will the clones be able to form their own families? Asexual reproduction in form of cloning represents one more step in the progressive dissociation between sexuality and reproduction, and in general will lead to reduction of biodiversity in the world. Consequences for the clone must also be considered. Is the dignity of the clone violated because he/she is created as a copy? Also if it comes to regarding clone as an object, it could lead to clones being created only for the purpose of transplantation in case of a need for an organ, for example. Supporters of reproductive cloning believe that cloning is a reproductive right, and should be allowed once it is judged to be no less safe than natural reproduction. They claim there are many advantages of cloning, for example to provide a genetically related children for infertile couples, allow parents of a child who has died to seek replacement for their loss, and also allow homosexuals to have children without using donor's sperm or egg. In reproductive cloning they also see a great benefit for endangered species.

## 17 Ethical issues in stem cell research and therapy

Stem cells are undifferentiated cells which can continuously divide and renew themselves and during their development they can differentiate into specialized cells. According to their ability to transform we recognize different types of stem cells:

- **Totipotent stem cells**, able to transform to any type of cell in the body, including reproductive cells and extraembryonic tissue. Example of this type of stem cell is zygote and cells resulting from its first mitotic divisions.
- **Pluripotent stem cells**, able to transform into cells of any type of cell line, except for totipotent and extraembryonic cells. For example embryonic stem cells (ESC), which are obtained from blastocyst (pre-embryo).
- **Multipotent stem cells**, able to transform into cells of only certain cell lines, e.g. neurons and neuronal support cells. Stem cells of this type are fetal and somatic stem cells. Fetal stem cells are obtained from fetal tissues, placenta, fetal membranes, or amniotic fluid. Somatic (adult) stem cells can be isolated from almost all tissues of human body, most often from bone marrow, adipose tissue, and umbilical cord blood.
- **Unipotent(progenitor) stem cells** can transform to only one type of cell, that's why the example of this type is represented by already differentiated cell, like skin cell.

Tab. 4 Basic differences between embryonic and somatic stem cells.

Embryonic stem cell	Somatic stem cell
pluripotent	multipotent
stable (can undergo many division)	less stable (capacity for self-renewal is limited)
easy to obtain, but blastocyst is destroyed in the process	difficult to isolate in adult tissue
possibility of rejection	host rejection minimized

Stem cells, if they can be directed to differentiate into specific cell types, offer a possibility of a renewable source of a replacement cells and tissues to treat various diseases and replace damaged cells. In regard to somatic stem cells, this property is already being used for a successful treatment of leukaemia and related blood/bone cancers, and for the treatment of extensive burns. Due to the fact that stem cells are the basis of all somatic structures, there is a perspective of using them basically in all branches of medicine. Encouraging results have

been achieved in the experiments of combining tissue engineering and stem cells in replacement of organs of urogenital, respiratory, circulatory or musculoskeletal system. Stem cells could also provide treatment for neural degenerative diseases and injuries, or even metabolic disorders, such as diabetes. The use of somatic stem cells is not considered to be controversial, because their production doesn't require the destruction of embryos.

On the other hand, the use of embryonic stem cells is still only in the stage of experiments bound by many regulations. Because of their pluripotent character, they have a high clinical potential in tissue repair. However these high expectations did not meet the expected delivery yet. The biggest ethical issue of embryonic stem cell research lies in the isolation of stem cells from early embryos, which are destroyed in the process. Currently the source of embryonic stem cells is mostly spare blastulas from fertility treatments. Another important challenge of ESC research is to ensure that ESCs fully differentiate into the required specialized cells before their transplantation into patients. The most discussed ethical considerations of ESC research involve:

- **consent** – couples undergoing fertility treatment must specify the uses which can be made of embryos created from their gametes, including whether or not the embryos can be used in any research project,
- **principle of justice** – justice requires the use of ESC to be available to everyone, with the goal of reducing unfair disparities in access due to its high costs,
- **creation of embryos to produce stem cells** – increased demand may lead to the creation of embryos specifically for research, which denies the respect for embryo as a human being,
- **derivation of embryonic stem cells from cadaveric fetal tissue** – this issue requires specific legal regulations.

In 2006 a breakthrough in regenerative medicine happened, by developing of induced pluripotent stem cells (iPSC). They are a type of pluripotent stem cell that can be generated directly from adult cells by introduction of four specific genes encoding transcription factors. iPSC cells can reduce the need for human embryos in research and open up new possibilities for stem cell therapies. This could make the debate over ethical issues of stem cell research quite irrelevant. However human embryos will still be needed for the research. Scientists believe it would be wise to study all stem cell types, since they are not sure yet which one will be the most useful for cell replacement therapies. Also an additional ethical consideration is

that iPS cells have the potential to develop into a human embryo, in effect producing a clone of the donor.

In stem cell research and therapy in general much has been achieved but much more remains to be done. Although biomedical application of stem cells research promises great benefits, many challenges must be overcome and ethical issues resolved before stem cell treatments may become a reality.

## 18 Ethics Committees

Ethics Committees are an independent multidisciplinary groups of experts and people without medical or scientific qualification, which play an important role in solving ethical problems concerning biomedical research and health care. Their role in general is the assessment of ethical dilemmas in the process of providing health care and the assessment of ethical legitimacy of new diagnostic, therapeutic, prophylactic and preventive procedures, including cell and tissue banking. To a significant degree they are involved in promoting the patients' rights and providing suggestions of new legislation forms, which would provide better alignment of ethics and law. Ethics committees also evaluate the publications of clinical research results for editorial councils of international medical journals. In some cases they can take on the role of education in the field of scientific research and ethical decision-making. Ethics Committees represent a positive image of accepted reforms concerning biomedical research and health care.

Ethics Committees can work on local, regional and national level. They can be established by research institutions, regional or national authorities, and also by health care facilities. The scope of committee's duties always depends on the institution, which established it.

In solving ethical problems they rely on main principles of medical ethics (*beneficence, harmlessness, autonomy, justice, informed consent*), bioethics, country's legislation and internationally recognized documents. Ethics Committees provide an independent statement on the presented issue, e.g. to what degree is the proposed project in accordance with ethical standards and with legal norms and regulations, or whether the provision of health care is in accordance with basic principles of medical ethics, etc.

The most important requirements for Ethics Committees are:

- an independent assessment of ethical issues (elimination of unwanted outside influence and conflicts of interest),
- professional competence,
- ethical acceptability of individual members of the committee by other professionals, institutions and by the public,
- tactfulness concerning regional and local moral consciousness,
- the ability to reach a decision in an acceptable timeframe.



Even though requirements are imposed on members of Ethics Committees, such as uprightness, responsibility, moral integrity, professional qualification and knowledge of fundamental principles of bioethics, they must receive an appropriate and independent training corresponding to their responsibilities. Another requirement for members is confidentiality, every information obtained while performing their duties is considered to be confidential. While appointing the members of Ethics Committee, balanced summary of biomedical, scientific, philosophical, legal, ethical and laical preconditions must be secured. Therefore members of the committee include experts/professionals (medical professionals, lawyers, scientists, ethicists, epidemiologists, pharmacologists, psychologists, etc.) and laymen, people without specific qualifications in medicine, health care or biomedical research, who reflect the views of the public and the patients. All the members are equal in the process of the assessment. Ethics Committee can invite professionals from other fields of science in solving serious professional questions. It is a fundamental requirement that the members of the committee work independently from scientific researchers or institutions proposing the project and also from the authorities and institutions which established the committee. Number of the committee members must always be odd, and not less than five.

Based on the focus of Ethics Committees' work in medical practice, there can be:

- Ethics Committees for biomedical research,
- Clinical Ethics Committees.

**Ethics Committees for biomedical research** (Research Ethics Committees, REC) play an integral part in the whole process of research. They have a specific role before, during and even after the research project is completed. In most of the countries, the approval of Ethics Committee serves as a recommendation for the competent authority, which then decides whether the research can begin. The foremost role of the committee in biomedical research is to protect the interests of the involved subjects, to secure the respect for their dignity, basic rights, physical and mental integrity, safety and health. Other roles are to guarantee the professional and moral competence of the researchers, improve the communication between researchers, scientific institutions and society and to improve the whole culture of the biomedical research in general. Ethics Committees are helping to make the research to be trustworthy, without risks for the subjects involved and performed on the meaningful basis. With their work they provide a public warranty, that the unethical research will not be approved.

**Clinical Ethics Committees** (Health Care Ethics Committees, HEC) assess and propose the solutions for ethical problems arising in medical practice and in the process of the provision of health care. They are also expected to provide consultations for the participants of the ethical conflict, whether they are patients, their relatives, physicians, nurses, other nursing staff, management of the health care facility, media or public.

Reasons for establishing the Ethics Committees in health care facilities according to Glasa (2006) are:

- progress in medical sciences and health care,
- economic boundaries in health care provision,
- increasing autonomy of the patients,
- complexity of decision-making in medical practice, team approach to provision of health care,
- difficulty in decision-making for patients and their relatives, legal representatives,
- new medical technologies with the impact on personal and family life (gene therapy, assisted reproduction technologies),
- the increased incidence of ethical conflicts,
- pluralism in morality,
- multiculturalism in society, including religious plurality,
- increasing multiethnicity in society,
- the need to take into account the values of patients and their relatives,
- interests of the society, interests of the smaller communities,
- the need for "the neutral ground" for mediation, clarification and decision-making,
- the need for the protection of person's dignity, rights, integrity, identity and other eligible interests of the patient.

In terms of European Union (EU) regulations, the definition and the role of Ethics Committees are implemented in the Directive 2001/20/EC – Clinical Trial Directive. Through this directive the EU is envisioning the harmonisation of Ethics Committees on research across the Europe, including the time taken to assess a trial proposal and the kinds of issues a committee should take into account. The work of Ethics Committees is further regulated by each country's own legislation. In Slovakia, it is the *Act No. 576/2004 Coll. on health care and on services related to health care*, which includes the requirement for Ethics Committees to be established on local, regional and national level.

Faculty of Medicine of Pavol Jozef Šafárik University has its own Ethics Committee. The role of this Committee is the assessment of ethical-legal and medico-ethical aspects of the following issues:

- projects of biomedical and clinical research,
- animal experimentation projects,
- research methods,
- publication of the results of experimental and clinical researches,
- implementation of research results into practice,
- proposed project of experimental or clinical research for doctoral studies and student's scientific and research work (ŠVOČ),
- dissertation defences,
- selection, habilitation and inauguration procedures,
- ethical problems associated with the general obligations of assistants, researchers, students and other employees and with interpersonal relationships.

Ethics Committee is also offering consulting services for students and employees of the faculty, popularizing information on medical ethics and drawing attention to the existing ethical problems in medical practice.

## 19 Publication ethics

Management of the research team, including mutual communication, processing of publications using the results obtained in the experiment and their propagation is considered a priority for researchers. However, the way how researchers interpret their results, may be influenced by several factors, such as public influence, moral and ethical qualities of the researcher and his/her personal scale of values.

Scientific dishonesty including the omission of the inappropriate data, falsification of the results or manipulation of the research, is considered to be a violation of the essence of science. Such practices can in a significant way violate traditional values of science and research, not to mention the violation of the trust in the research integrity and deformations in the education of the young scientific generation. It is unethical, and oftentimes intentional behaviour of the researchers, which leads to a disregard for ethical requirements of possible involvement of humans and animals in the research. The problem of unethical behaviour, fraud and unprofessional ethics of the researchers conducting an experiment first occurred in times of a significant development of biomedical research in the second half of 20<sup>th</sup> century, especially in developed countries. Today we speak of so-called "*ethical missteps*", meaning the violation of the principles of the ethics of science, which can lead to the damage to individuals, society and subjects of the research (e.g. by the use of dangerous and insufficiently verified pills).

Most common reasons for the breaches of ethics in biomedical research:

- bad management of the researchers and students,
- pressure to publish (quantity exceeds quality),
- conflict of interest,
- competition and non-governmental support for the research,
- direct financial gain.

One of the most serious consequence of the unethical publishing is so-called **redundant (duplicate) publication**. It means that the published work is published more than once (in the same or another language) without adequate acknowledgment of the source/cross-referencing/justification, or when the same data is presented in more than one publication without adequate cross-referencing/justification, particularly when this is done in such a way that reviewers/readers are unlikely to realize that most or all the findings have been published

before. An example of the inexcusable violation of the publication ethics is **plagiarism**. It is an illegal use of any published or unpublished ideas, formulations, results, photos, illustrations, tables, etc. without mentioning the source of the document (references) and representation of them as one's own original work.

International Committee of Medical Journals Editors (ICMJE) has formulated the principles of publication ethics in document called *Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals*. It's also important to mention, that every scientist in publishing the results of the research must abide by two basic principles of publication ethics:

- **fair reporting** – truthful content of the publication,
- **fair publishing** – correct format of publication.

Latest knowledge of publishing is showing the disastrous consequences of already detected frauds in the research and publication. Therefore the publication ethics in science in general is remaining the subject of many national and international forums. The need for harmonized ethical and legal framework for science and research is based on the fact that ethics and law can't keep pace with the scientific progress, and on the need to increase the responsibility of the researchers. In this time of rapid development of science and research, it should be the matter of course to establish the obligatory courses and trainings in the basics of scientific research and publication ethics, which would include all the ethical requirements needed in conducting any experiment.

## **20 Clinical ethics in the selected medical divisions**

### **20.1 Neonatal and Fetal Medicine**

Neonatal medicine is a the branch of medicine that is concerned with the diagnosis and treatment of ill newborn babies, while newborn or neonatal period is defined as the time within 28 days of delivery. Fetal medicine is a the branch of medicine that is concerned with the health and development of the unborn baby. During the intrauterine life, there are two developmental stages, embryo (0-8 gestational week) and fetus (9-40 gestational week). Difficult decisions about treatment mainly concern cases of extreme preterm birth and prematurity, and babies with severe congenital abnormalities (malformations). Most commonly these decisions are about the care of the fetus and the mother before the birth, whether to resuscitate a newborn baby and admit him/her to neonatal intensive care, and whether to continue the invasive intensive care or replace active treatment with palliative care.

It is often difficult to predict whether an extremely premature or very ill baby is likely to survive, for how long and if he/she will have any health problems or disabilities. Making decisions about treatment can be very difficult for both parents and the doctors. One of the important questions that those involved in difficult treatment decisions need to address is the value they place in life of the fetus or a newborn baby. On one hand there is a principle of the sanctity of human life, which refers to the idea that human life is sacred, holy and precious (argument common for issues like abortion, euthanasia, embryo research, etc.). On the other hand stands the quality of life, referring to a persons' emotional, social and physical well-being, their intellectual capability, and their ability to perform the ordinary tasks of living within a community. However, there are different opinions on what comprises a "good" quality of human life. Important aspect that is being discussed in regard to decisions in fetal medicine is also the moral status of the fetus. Three different opinions present themselves:

- fetus has an independent moral status from the moment of conception,
- fetus is acquiring an independent moral status in stages during its growth and development,
- fetus can never have an independent moral status while developing inside the uterus.

Some argue that fetus doesn't need to have an independent moral status to be a patient. Human being without an independent moral status is considered a patient when this human being is presented to the doctor, and there is a clinical procedure, which is expected to be

effective in treating this person and when we can expect a result with predominance of beneficence over harm. By this, a dependent moral status is acquired.

In all matters affecting any child, his/her best interests should be the paramount considerations. However parents and doctors may have different ideas about what is in the best interest of the baby. Any decision will have implications for the parents and other members of the family who will live with and care for the child. Parents have interests and it is reasonable for these interests to be given some weight in any relevant deliberations about treatment decisions for a child who is, or who will become, severely ill. The decision to withhold or withdraw a treatment, is in each case motivated by an assessment of the best interests of the baby.

In decision-making about the treatment of the child/fetus, parents have the moral authority to make decisions in their child's best interest (informed consent of legal representative). From an ethical point of view however, is it in every case right to withhold the treatment or continue it if the parents request it? If the doctors believe that other course of treatment than the one decided by parents is in the best interest of the child, they can override it only with a court order. Exception is in the case of an emergency, where the life of the child is in imminent danger.

## **20.2 Surgery**

In the centre of interest of the surgery is the operation, which always represents a damage to the integrity of human body bound to the patient's consent. From it arises three basic requirements for every surgeon:

- high professional skills,
- knowledge of legal regulations and norms,
- acceptance of principles of medical ethics (beneficence, harmlessness, justice, autonomy, informed consent).

In surgery the autonomy, as one of the basic principles of medical ethics is not always applicable. In situations where patients are unconscious or under anaesthesia the surgeon takes over the right to decide about the treatment without the informed consent of the patient, or based on the patient's consent given without proper and full information about his/her health condition. This paternalistic approach is however necessary during the operation, especially in unpredictable situations. The surgeon must decide what is the optimal solution for present situation according to his/her best conscience and takes full responsibility for this decision. Paternalism is present also in cases of vital indications of urgent operations (trauma,

acute abdomen, etc.), where patient's life is in an immediate danger. Justification of paternalistic approach in these cases cannot be questioned, because it is always guided by the principle of beneficence. Ethical and legal relationship between surgeon and the patient gets into the worst situation when the patient, fully conscious and capable of making decision about their health, after receiving full information about his/her health condition still refuses the vitally indicated treatment. However the promotion of paternalism can in long run lead to dehumanization in medicine, and patients being identified by their disease or treatment procedure.

Introduction of new therapeutic methods (lasers, stents, miniinvasive surgery, etc.) brings with it a question, of who determines the indications for its use. Should it be the inventor, professional authorities, or even the patients? It is recommended that the decision-making about the use of new medical technologies should be a teamwork. However, there arises a risk that the surgeon might be exposed to certain influences, especially from companies providing these new methods.

One of the most important ethical requirement in surgery is team work and co-operation among surgeons and even hospitals. This requirement is also mentioned in the basic ethical principles in surgery stated by MD Nešpůrek, listed in Tab.5.

Tab. 5 Basic ethical principles in surgery.

1.	<i>Respect for other medical departments and friendly cooperation are basis for success in surgery.</i>
2.	<i>Surgery is an order which requires the whole surgeon.</i>
3.	<i>Surgeon must know a lot and must know how to do it. He/she must for every day be driven by the desire to be even better. Surgery can not be discussed, it must be done.</i>
4.	<i>Self-satisfaction of the surgeon leads to a stagnation, which level can be acceptable for monthly income, but can be dangerous for the patients.</i>
5.	<i>Even the most beautiful stitch and properly written medical record can not deceive the nature, when the operating procedure performed on the internal organs was imperfect.</i>
6.	<i>Professional quality of the physicians and nurses grows proportionately to the amount of patients with difficult diagnoses. Simplicity of work with patients with milder diagnoses leads to routine, reduced attention, and finally to mistakes even during the easier operations.</i>
7.	<i>Good surgeon and a good nurse are living with the issues of the whole department, not only with their selected patients, and they are able to work in full deployment regardless of time.</i>
8.	<i>Good surgery can be done even in bad material conditions, if the most of the staff are professionally and morally qualified, and devoted enough.</i>

(Šoltés, Pullmann et al. 2008)



### 20.3 Nephrology

Most of the ethical issues in nephrology concern renal replacement therapy, which includes elimination therapy (hemodialysis, peritoneal dialysis) and kidney transplantation. Dialysis is a process of removing harmful waste, salt and excess water from the blood. It is a necessary treatment for people with end-stage renal disease or permanent kidney failure. But the dialysis is a very expensive treatment method, therefore the scope of provided dialysis is directly proportional to the economy of certain country. Current statistics show that basically everywhere the number of patients exceed the capacity for dialysis. Selection of patients for dialysis because of insufficient capacity is one the biggest ethical issues concerning this treatment method. The selection is primarily based on medical criteria, taking into account the contraindications, like advanced malignancy, severe general atherosclerosis, liver cirrhosis, immobility, etc. However, the selection is sometimes faced with moral dilemma, like when the decision has to be made to choose between two young women, where one of them has a small child. Another ethical issue in selection can be the consideration of age of the patients. The young patient is more perspective, but elder patient can oppose, that he deserves the treatment because of everything he/she has done for society.

Another ethical issue is the selection of dialysis method, and its availability. In case of hemodialysis, patient is more dependent on medical staff and often requires hospitalization. Where peritoneal dialysis gives the patient more independence from medical staff, it requires more cooperation from the patient and family. It is usually the choice of patients in good condition, who are mobile, have a good sight and good social background. Some patients often choose this method because of long travelling distance to closest dialysis centre.

Ethical issue of dialysis treatment present also many restrictions in life of the patients:

- time (length and frequency of treatment),
- discomfort,
- painful arterio-venous fistula punctures,
- sick leave,
- travelling to dialysis centre,
- accompanying anemia causing reduction of physical and sexual activity.

In general, there are two basic types of problematic patients. At first, there are patients who cannot adapt well to the treatment, they do not cooperate, and strongly feel the restrictions in their lives. This can lead to conflicts with doctors and nursing staff, even depression and suicidal thoughts are common. Secondly, there are patients with complications

leading to even more restrictions. Dialysis treatment for them becomes prolonging of suffering, damaging their quality of life, and can lead to request for euthanasia. Therefore we must ask a question whether such treatment should not be considered futile.

## 20.4 Psychiatry

Ethical practice in psychiatry is guided by the same principles of medical ethics applicable in other fields of health care. However, ethics in the context of psychiatry can be unusually complex. This is partly because the suffering of the mentally ill patient presents itself as a distortion of the cognition, feeling, perception and behaviours, or the erosion of relationships, societal role and sense of self. Therefore psychiatric practice must involve close relationship between the patient and the doctor, which can sometimes even lead to an intense transference (unconscious redirection of feelings from one person to another). Also the line of demarcation between normal and abnormal is hazy, and psychiatric treatment can be easily questioned because of that. In general any treatment that aims at modifying the behaviour of people can be perceived as an implied threat, because it could be misused for controlling behaviour for certain interests.

The first position statement of the psychiatric profession concerning ethical issues was the **Declaration of Hawaii** established in 1977. In 1996 an update in form of a **Declaration of Madrid** was approved by the General Assembly of the World Psychiatric Association, later enhanced in 1999, 2002, 2005, and 2011. It provides an ethical guidelines for specific situations in psychiatric practice, like euthanasia, torture, death penalty, selection of sex, etc.

Ethical issues of psychiatry starts already with psychiatric diagnosis. It should serve the clinical purposes, as it provides reasonable guidelines regarding etiology, management and prognosis. One should not equate psychiatric diagnosis with legal insanity, or it should not be used as a defence for reduced responsibility. Large number of psychiatric diagnoses don't even fulfil the legal conditions required for insanity.

As the Declaration of Madrid states: *"The psychiatrist-patient relationship must be based on mutual trust and respect to allow the patient to make free and informed decisions. It is the duty of psychiatrists to provide the patient with relevant information so as to empower the patient to come to a rational decision according to personal values and preferences."* However, informing a patient of mental illness and its prognosis can give rise to a distress and may sometimes lead to adverse consequences. Any information about treatment methods may not be fully understood by the patients and their decision might be influenced by certain

prevailing biases and prejudices against treatment. Competence of the patient to comprehend the information provided is at question in this case.

There are cases where mental disease could make patients to be dangerous to themselves and their surroundings, most often in terms of suicidal intentions. When this condition is anticipated, based on patient's history, or an actual claim of committing a suicide, the court can order a hospitalization and treatment is provided without the need of the consent. This can be viewed as an involuntary hospitalization by the patients themselves, sometimes they don't even consider themselves to be ill at all.

Another one of ethical issues in psychiatry is concerning the doctor-patient confidentiality. The problem can arise when the information provided by the patient, or the diagnosis itself can be dangerous to others. Protective privilege stands versus public peril. So the doctor is faced with a difficult dilemma. If the patient tells the doctor that he/she is planning to kill someone, of course the immediate danger is prevented by the court-ordered hospitalization, but shouldn't that person be informed about a possible threat? Can the patient with psychosis works as a bus driver, or does this diagnosis pose a threat to the public safety? In both cases the decision to inform the people concerned would mean the breach of confidentiality. Where ethical principles contradicts themselves, perhaps the proper legal regulation could guide a decision-making of the psychiatrist regarding such dilemmatic situation in psychiatric practice.

## **20.5 Prehospital emergency medical care**

Prehospital emergency medical care is a crucial part of health care system. It is delivered by emergency physicians in some countries and by emergency medical technicians (EMT), paramedics or nurses in others. The difference between the EMTs and paramedics is that the EMTs are not allowed to provide treatments that require breaking the skin of the patient, meaning no needles. The things that make prehospital emergency medical care different from other areas of health care include the necessity to react quickly, restricted time to consider medical and ethical aspects of the case or situation, the absence of prior knowledge about the patients, and unpredictable patient profiles. One of the challenges is also the very fact of the administration of medical care in a non-medical areas, sometimes even hardly accessible areas, and in emergency conditions with limited equipment at hand. All the patients and situations are unique, and the ethical implications are unique to each patient encounter as well. There are no quick formulas for the right action and emotion.

Ethical issues of prehospital emergency care can be divided to two groups according to the chronological sequence of medical care provision (Tab. 6).

Tab. 6 Two groups of ethical issues in prehospital emergency care.

<b>Ethical issues related to the process before medical interventions</b>	<b>Ethical issues related to the treatment process</b>
justice	informed consent
problems associated with finding the address	refusal of treatment
stigmatization	refusal of transport to the hospital
interventions in dangerous situations	dealing with difficult patients
safe driving	irrational requests of relatives or bystanders
	triage

*(Erbay, 2014)*

First group includes the ethical issues related to the process before medical interventions. Principle of justice in this case is mostly related to the emergency dispatch call centre, and it demands that every calls receives a response, without discrimination. However, the problem can arise if there are many emergency calls and not enough ambulances available. Problems associated with finding the correct address of an emergency situation calls for a strong and effective technical support. Stigmatization in prehospital settings occurs in relation to individuals' diseases, or locations, for example administering care to alcoholics, drug addicts, sex workers, and terminal cancer patients. Some prehospital settings pose dangerous conditions for emergency teams, like war zones, traffic accidents, or areas at risk of fire or explosion. The dilemma is, whether or not the duty of the emergency health care provider includes placing oneself at risk. Even with the use of sirens and lights during the transport of the patient it is important to drive an ambulance in accordance with general traffic rules, to the extent necessary for safe driving.

Second group of ethical issues of prehospital emergency care involves those related to the treatment process. One of the main problem is informed consent, because the patient not only needs to be competent to make a decision, but also have enough time to be informed properly. In some prehospital setting the conditions for proper informed consent cannot be met, and

sometimes it may be difficult to properly assess decision-making capacity of the patient in a short period of time. In situations where time is of essence and the patient is in critical condition it is more important to administer medical care than to explain the procedure to the patient. The emergency team faces a conflict between the implication of the truth and the patient's best interest. Ethical dilemma arises also in situations when patient refuses the treatment or transport to the hospital. Emotional state and certain conditions of the patient makes them difficult to deal with. Difficult patients often include those intoxicated by alcohol or drugs, terrified, stubborn, or agitated. Effective communication skills and empathy is needed to deal with these patients. Mentioned ethical issues concern the patient, however dilemmatic situations can happen also due to irrational requests of relatives or bystanders, like a request for an unnecessary ambulance ride or refusal of treatment for their relative. Prehospital emergency medical care faces a specific problems in case of a mass casualty incidents (MCI). The first action upon the arrival of the emergency teams at the scene is to establish that it is safe. After that, the health care providers must analyse the number and severity of the patients. Triage is the process of sorting people based on their need for immediate medical treatment as compared to their chance of benefiting from such care. One of the main issues concerning triage is the evaluation and selection criteria. Conventionally there are four classifications of injured people with corresponding colours and numbers, although they can vary according to the country. In Slovakia prehospital emergency medical care uses START (Simple Triage and Rapid Treatment) system triage that separates injured people into four groups listed in Tab. 7.

Tab. 7 Categories of injured people according to START system.

<b>Red</b>	<i>Immediate</i>	Require immediate life-saving treatment.
<b>Yellow</b>	<i>Delayed</i>	Their condition is stable for the moment, treatment can be delayed, but they will need hospital care.
<b>Green</b>	<i>Walking / minor</i>	People with mild injuries, they don't require immediate treatment(can wait hours, days).
<b>Black</b>	<i>Deceased</i>	Injuries incompatible with life, dead or dying patients.

**TRIAGE TAG**  
PART I

No. 239352

CALIFORNIA FIRE CHIEFS ASSOCIATION®

Leave the correct Triage Category ON the end of the Triage Tag

Move the Walking Wounded **MINOR**

No respirations after head tilt **DECEASED**

☐ Respirations - Over 30 **IMMEDIATE**

☐ Perfusion - Capillary refill Over 2 seconds **IMMEDIATE**

☐ Mental Status - Unable to follow simple commands **IMMEDIATE**

Otherwise- **DELAYED**

MAJOR INJURIES:

HOSPITAL DESTINATION:

ORIENTED ☒ ☐ DISORIENTED ☐ UNCONSCIOUS ☐

TIME	PULSE	B/P	RESPIRATION

**DECEASED**

**IMMEDIATE** No. 239352

**DELAYED** No. 239352

**MINOR** No. 239352

**TRIAGE TAG**  
PART II

MEDICAL COMPLAINTS/HISTORY

ALLERGIES:

PATIENT'S:

TIME	DRUG	SOLUTION	DOSE
	D <sub>2</sub> W	R/L	NS

NOTES:

PERSONAL INFORMATION

NAME:

ADDRESS:

CITY:

TEL. NO.:

MALE ☐ FEMALE ☐ AGE: WEIGHT:

**DECEASED**

**IMMEDIATE**

**DELAYED**

**MINOR**

Fig. 3 START triage tag.

(<http://citmt.org/Start/tag.htm>)

Specific ethical issues in prehospital emergency care are related to the end-of-life decisions. In regard to prehospital emergency care they usually involve decisions whether to initiate or discontinue the cardiopulmonary resuscitation (CPR). One of the most frequent dilemmas reported concerning initiation of CPR is DNR order (Do Not Resuscitate order). Resuscitation is also not commenced when there are evident signs of death (post-mortem changes) apparent. But if there is no doctor in the crew, evaluation of the signs of death is the duty of paramedics, which poses an ethical and legal conflict in prehospital CPR. Decisions to terminate the resuscitation efforts are made on case-to-case basis. Generally accepted view is that CPR should be stopped after 20 minutes, if it has been unsuccessful and asystole persists with the absence of reversible pulse. Also the presence of family during the resuscitation can lead to even more ethically conflicting situations.

## **21 Ethical issues of being a medical expert witness**

Expert activities play an essential role in criminal proceedings, where the expert opinion is an important part of the evidence in judicial inquiry and is often irreplaceable for proper investigation of the facts. The role of the expert is to clarify matters important for decision-making in the case in hearing, therefore the expert activity requires professional knowledge and skills in specific discipline. Therefore, an expert witness is a person who is a specialist in a subject, who may present his/her expert opinion without having been a witness to any occurrence relating to the lawsuit or criminal case.

If medical expert assessment is needed, then the expert is a doctor with medical specialty depending on the investigated matter. Medical expert assessment concerns:

- individual health,
- health care provision,
- mechanism of injury and other damage of health,
- influence of ethyl alcohol, drugs, toxic substances,
- compensation for the pain and deteriorated social and work capacity.

Ethics of expert activities is a form of applied ethics. In relation to expert medical activities, basic principles of medical ethics (beneficence, harmlessness, justice, autonomy) could be applied. However the medical expert must step out of his/her helping profession and act objectively. The expert witness must refuse to perform the expert investigation if there is a reasonable assumption of any bias against subject of the investigation or its participants. Expert investigation must be conducted on the same professional level regardless of the client. Often the expert witness might be under the pressure, so he/she must refuse any attempt to affect his/hers independence and objectivity, excluding any form of influence. The expert witness must also have the knowledge of legal norms concerning expert activities (rights and duties) and do the investigation with the use of all the professional knowledge and skills, as well as all the current available knowledge in the certain medical specialty. One of the ethical consideration regarding expert activities is also a determination of the lowest and highest possible age for the expert witnesses. The expert witness is not entitled to carry out the assessment of the evidence, or address the legal issues, such as degree of culpability, crime classification, and the length of the sentence.

Unethical approach of the medical expert witness includes:

- to make an expert opinion at the request of both parties standing against each other in the proceeding,
- to make an expert opinion for one party, if the expert refused to make one for the other party involved,
- to make an expert opinion on the matters, in which he/she previously made an expert opinion for the counterparty,
- to discredit another expert, especially at the court hearing, or in front of the media,
- to discuss the investigation in the media,
- to make an expert opinion solely for the financial gain.

The expert opinion must meet all the requested conditions, requirements and formal adjustments. It must be true, objective, complete, independent, verifiable and justifiable, and of course drawn in accordance with the current legislation. The expert opinion is provided with the stamp and signature of the expert witness, who by that is taking the full responsibility for its content. The most common mistakes of the expert opinion are:

- **incompetence** –opinion about the cause of death given by general surgery expert,
- **professional errors** – incorrect assessment of the mechanism of damage,
- **using terms of legal assessment**,
- **uncertainty** –conclusion doesn't result from the investigated circumstances and findings,
- **non-credibility**,
- **incompleteness** – lack of points explaining the mechanism of injury,
- **subjectivity**  $\Rightarrow$  **lack of objectivity**,
- **partiality** – doctor should have no interest in the outcome of the case,
- **incomprehensibility** –use of Latin terminology without explanation,
- **time disproportion**– failure to meet the deadline.

When presenting the expert opinion during the court hearing the medical expert witnesses should use simple terms and avoid any technical terms or medical jargon, the court is not an expert in medical specialty, and usually does not poses any medical knowledge. The expert witness must resist any apparent attempts to make him/her testify on matters outside or beyond his/hers area of expertise, and if the expert is asked questions outside the area of his/hers medical specialty (asked to speculate or hypothesize), he/she must make it clear to the



court that this question does not fall into the area of expertise. It is preferable to use a moderate and objective manner when presenting the expert opinion and resist attempts designed to provoke, never argue with the questioner. Also the expert witness must be cautious of the use of humour and satire and never be sarcastic, the demeanour is as important as the value of the expert opinion. Guidelines for expert witness testimony further include listening carefully to each question and answering honestly, answering only the specific question and not providing any information beyond the question. Answers must be stated plainly and the expert must make sure to distinguish statements of opinion from the statements of the fact. Basic requirements for the medical expert witness include:

- abiding by the moral and ethical principles,
- truthfulness,
- impartiality(principle of justice holding that decisions should be based on objective criteria, rather than on the basis of bias, prejudice, or preferring the benefit to one person over another for improper reasons),
- independence,
- responsibility,
- professionalism,
- confidentiality,
- objectiveness,
- solid knowledge,
- firmness in the argumentation.

To be a medical expert witness is a demanding and responsible professional activity. Each expert must be aware of his/her position and role in the process of investigation and the expert assessment. Unethical approach brings problems into the expert activities, and reduces the experts' credibility. The quality of expert assessments in health care can be increased by following standard medical procedures, abiding by the ethical requirements, and establishing the code of conduct for medical expert witnesses, or even Ethics Committees for expert activities.

## 22 Communication in medical care

Communication is the most important means of forming an effective contact, cooperation and understanding. And in the most significant extent it participates in forming interpersonal relationships. We are thought how to communicate with one another since the early childhood. Even though the ability to communicate seems a matter of course, misunderstandings in communication of all kinds in personal and professional life make us rethink this opinion. The same applies in medical practice, where communication between physician and the patient is often taken very lightly, or it is underestimated. During the health care provision, it is the communication, which mostly participates on the development of trust between the physician and the patient. Therefore, the physician must know how to behave ethically and how to properly communicate with the patient. Communication can influence patient's satisfaction, the choice of possible treatment method and even the effectiveness of the treatment.

Relationship between the doctor and the patient is formed based on the communication. Different models of doctor patient – relationships exist according to the extent of information provided, amount of trust developed, or position of each participant in the conversation. Before the development of the informed consent the paternalistic model was the most common. In it, the doctor holds the dominant position. Withholding of information, which could have negative effect on the patient (frighten him, put him into despair) was considered to be a respectful behaviour towards the patient. This so-called merciful lie (*pia fraus*) was a significant ethical standard, even if it meant that the patient didn't know about the fatal diagnosis. Usually the relatives of the patient were the only ones fully informed. However, with the development of patients' rights, increase of education and awareness in health care and the development of information technologies paternalistic model of doctor – patient relationship failed. Currently existing non-paternalistic model is considered to be a form of a partnership. It emphasizes patient's autonomy and responsibility for the treatment, takes into the account the patient's right to information and the possibility of co-decision on the diagnostic and therapeutic procedures that he/she needs to undergo. Newly forming understanding of the health care as a provision of services is proposing a new model of relationship, a contract with the patient. In this model, the physician is viewed as a provider of services (salesman of medical practice), and the patient as a consumer, who buys medical

products. However such model can never be sufficient for the complexity and personal nature of the doctor – patient relationship.

Communication skills in medicine represents in a certain way a specific ability, which is not always a natural one, but the one that must be acquired. However the communication is affected by many factors, whether related to the patient, doctor, relationship between them, or the health care in general (Fig. 4).

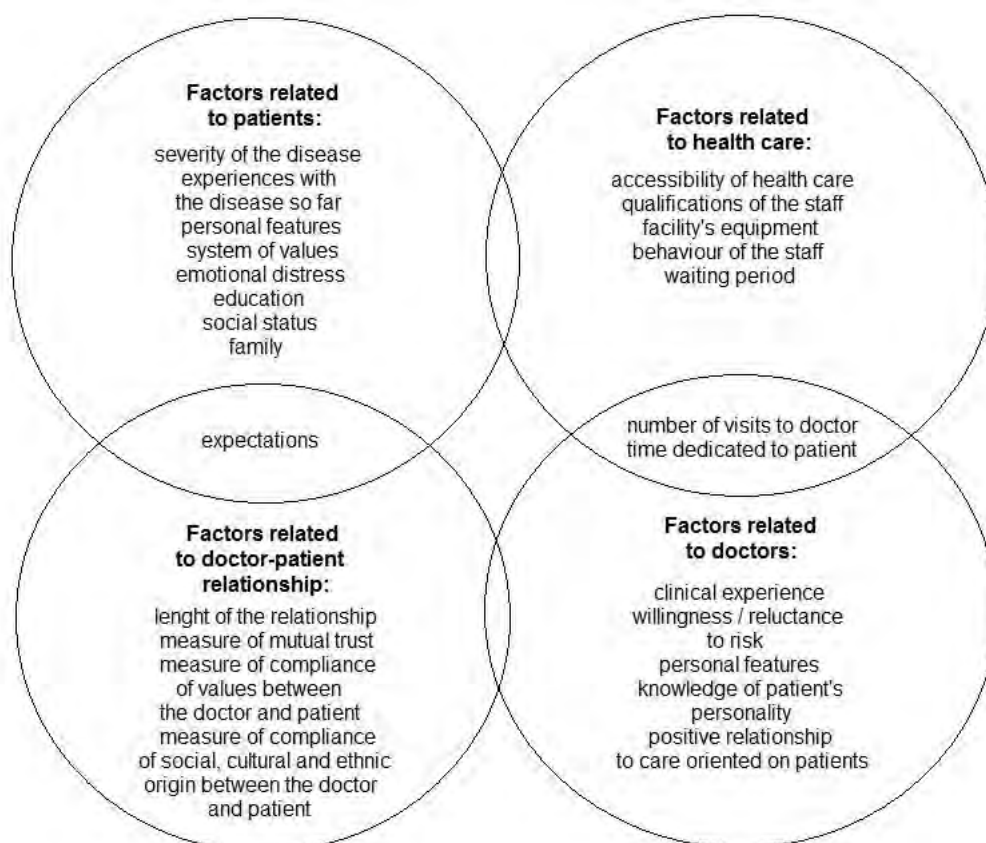


Fig. 4 Factors affecting communication with the patient.

(Ptáček, Bartůněk et al. 2011)

Basic requirements for communication between the doctor and the patient are:

- know, what we are going to say,
- decide, when to provide the information,
- choose an appropriate place to talk,
- decide, how to best formulate the information,
- remember, that information which is understandable for the doctor, might not be understandable for the patient,

- talk clearly and do not try to complicate the communication in any way,
- select the appropriate pace and corresponding tone language,
- watch and notice patient's responses, notice in particular any signs of anger, confusion, take into consideration patient's emotions,
- enable the patient to sufficiently express him/herself,
- do not trouble or irritate the patient by your speech,
- verify that the patient received and understood the information.

Information about the diagnosis, treatment, prognosis and the possible risks is always provided by the physician. Information about the nursing care is provided by the relevant health care professional. It is important to realize that the patient perceives the health care as a whole, including not only the communication between him/her and the physician, but also the communication between health care professionals themselves. Therefore, the physician must apply the ethical requirements also in communicating with his/her colleagues.

### **22.1 Conversation as a basic instrument of medical care**

Conversation is the strongest and most sensitive instrument of the physician. During the conversation doctor and the patient develop mutual trust and are both provided with the information they need. The conversation between the doctor and the patient depends on the communication skills of the doctor. However as the conversation is a dynamic process, it represents the mutual activity of both entities involved (doctor and patient).

Essential means of conversation are questions. Suitable questioning can encourage the patients in describing their medical conditions, even improve their mental state or motivate them to change their behaviour towards their health. Basic types of questions used in conversation are listed in Tab. 8.

The important part of the conversation is the active listening of the physician, with trying to understand the patient and active search for relevant information in patient's talking. Active listening can be implemented by encouragement (stimulation) of the patient, reformulation of the main ideas, clarification (asking the patient to specify the information), summarizing of the information provided by the patient, or by the appreciation of patient's openness, collaboration, and compliance with the treatment. During the conversation, the patient is also influenced by doctor's nonverbal means of communication, such as eye contact, facial expression, pose, or movement. Another means is a distance between the persons communicating. In health care environment, the preferable distance is 45 – 120 cm. However

the physician during the patient examination, usually enters a distance smaller than 45 cm, which represents the breach of the intimate zone of the patient.

What the physician must avoid during the conversation is jumping into speech, openly expressing disapproval, leaving during the conversation, demonstrating impatience, giving directive advices, or looking away.

Tab. 8 Basic types of questions.

Open questions	to obtain basic information about the patient's condition
	<i>Could you please describe your difficulties?</i>
Additional questions	to complete all the information from the patient
	<i>Do you feel these difficulties during exercise?</i>
Appointive questions	to specify the information
	<i>Do you feel these described difficulties most often in the morning, during the day or in the evening?</i>
Alternative questions	give the patient two options
	<i>Do you feel these described difficulties mostly at rest or during the exercise?</i>
Emphatic questions	to show compassion and involvement with the patient
	<i>I can see, that you are not satisfied with the current treatment. What do you think would bring you even bigger relief?</i>
Suggestive questions	not appropriate in every situation
	<i>Does it hurt here?</i>

One of the universally applied model of conversation between the doctor and the patient is Calgary-Cambridge guide to the medical interview – communication process, which includes the following parts:

- **initiating the session**– includes the establishing initial rapport (greeting the patient, introducing ourselves and clarifying our role, obtaining the patient's name, demonstrating the interest and respect, attending to patient's physical comfort) and identifying the reason(s) for the consultation,
- **gathering information** – obtaining the information by the means of verbal and non-verbal communication,
- **physical examination**

- **explanation and planning** – explaining to the patient his/her health condition and its complications, answering all the patient's questions, suggesting the possible treatment methods, agreeing on an acceptable treatment plan,
- **closing the session** – coming to the joint decision on future procedures, informing the patient what to do in case of complications, where and how should the patient look for help, making a final check that patient agrees and is comfortable with the plan and asking if there are any corrections, questions or other items to discuss.

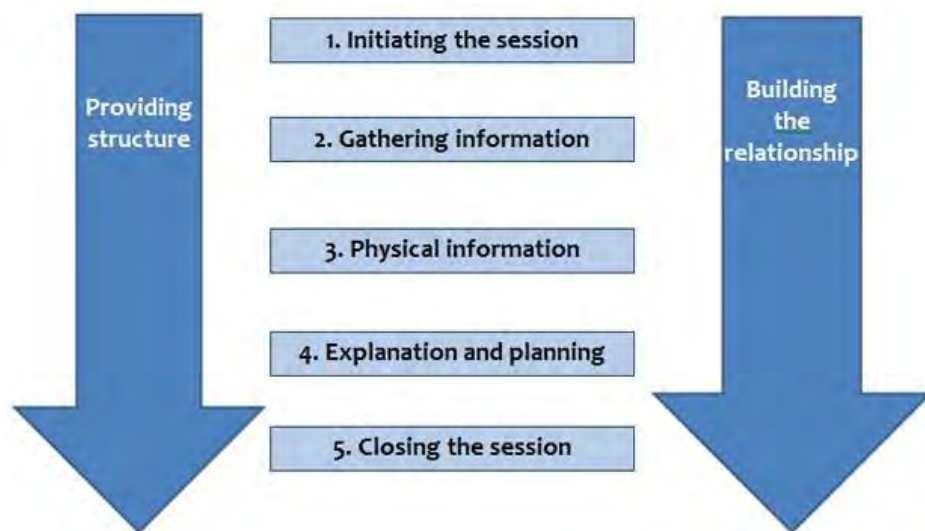


Fig. 5 Calgary-Cambridge guides.

(<https://hodes-model.blogspot.sk/2016/04/skills-communicating-patients.html>)

Provided model is universal, however not applicable in every situation. Additional parts to the model are providing structure and building the relationship. Providing structure includes making an organisation overt (summarizing at the end of a specific line of inquiry to confirm understanding before moving on to the next section, progressing from one section to another using signposting, transitional statements), and attending to flow, by structuring the interview in logical sequence, and attending to timing and keeping interview on task. Building the relationship is based on using the appropriate non-verbal behaviour, accepting the legitimacy of patient's views and feelings (the physician must not be judgmental), showing empathy, providing support, expressing concern, understanding, and willingness to help. The physician must deal sensitively with embarrassing and disturbing topics and physical pain, including when associated with physical examination. Process of the physical examination should be explained, and patient must be asked for a permission.

Specific situation represents the communication of bad news to the patient, which is probably one of the biggest fears of the physicians in clinical practice. The physician might often feel responsible for the patient, fear his/her emotional reaction, or even accusation. Communication of the bad news to the patient requires time, preparedness of the physician, and in every situation an individual approach. Conversation should take place in non-intrusive environment, without the presence of other patients or hospital staff. Some health care facilities have rooms reserved specifically for this purpose. If the patient asks for the other person, or doctor to be present during the conversation, it should be allowed. Prognosis should be realistic and not numerically defined. In any case, communicating the bad news to the patient requires empathy, sensitive approach and adequate selection of verbal and non-verbal communication techniques.

## **22.2 Communication with pediatric patients**

During the initial examination and subsequent hospitalization of the child, it is important to develop a confidential relationship between the child, parents and medical staff, which enables a good cooperation. The doctor gains the trust of the child by creating a peaceful environment and of course by suitably chosen communication. The level of communication depends on the child's age. The means of conversation are different in case of a small child compared to talking with the adolescent child. Before obtaining the anamnestic data it's good to talk with the child about his/hers hobbies, about school, basically to make the child feel comfortable talking to the doctor. Conversation usually takes place between the child, parents and the doctor, and it must be ensured that the child is an equivalent participant of this conversation, and it must be held in a friendly and relaxed manner. It is suitable to explain every diagnostic and therapeutic method to the child, and even ask for his/her approval. The doctor must answer all the questions the child patient might have, and the answers should be simple, without using any medical terminology.

During the conversation the doctor must take a critical view in evaluation of the answers of both parents and the child patient to be able to reveal any withholding or exaggeration of information. It is important especially in a case of a child abuse. Abused and neglected children require a special approach in communication. They are often timid, anxious, they have startled reactions, don't keep the eye contact with the doctor. This behaviour is particularly present, when the parent or accompanying person, who is also the aggressor is present during the conversation.

As was mentioned, the parents are part of the conversation, and usually it's them who provide the doctor with the most valuable information about the health condition of the child. In communication with parents it's important to always be honest, truthful, information provided to them must be clear and understandable. The doctor needs to avoid hurting parents more than the serious illness of their child itself. In every day pediatric practice certain situations can occur, which require an adequate knowledge of communication techniques, empathy and ethical approach. Most often those are situations where the doctor must communicate to the parents the serious and adverse information about their child's health condition, or the situations where parents get angry, accusatory and even aggressive.

Adverse information about the child's health is announced to parents always by the doctor, not nurse nor other medical staff. The conversation must be happening in private, without any interruption by other people or phone calls. The doctor talks to both parents at once. Relatives, friends or even familiar doctor can be present, if the parents wish so. Information must be relayed clearly, fully, in an understandable way according to the mental capacity and emotional state of the parents, the doctor should not use any quantitative information about prognosis, like there is 10% hope, etc. A moment of silence might occur during the conversation, it should not be interrupted by forced talking. Parents should be allowed to be alone for a while, and process the information. Details about the diagnosis or treatment can be discussed later, if the parents request it. Sometimes they might even start to blame themselves for not coming sooner, and not recognizing the symptoms. It is considered unethical to pass judgement about health care provided by other doctors.

The second problematic situation is when the parents get angry, hysterical, they are looking for someone to blame and become aggressive towards the doctor. This situation is better not dealt with in private, but in an open space (office with doors left open). Also it is preferable that another doctor is present, the best would be the supervisor (head of the clinic/department). It is recommended to let the parents speak, display the will to listen to them, always answer in the calm voice. Sometimes it can help to invite some other doctor/colleague, or the doctor with whom they are familiar with to again explain the situation to them, and confirm what was already communicated to them. However, if the situation is unmanageable, it's better to end the conversation and ask the parents to come back some other time. There is also an option to try to offer them professional help (psychologist, calming therapy, etc.). In case of a genetic disorder, it's good to suggest a preventive examination of the sibling/s.



Both of these situations are difficult to handle and they require patience, empathy, and also a certain amount of depersonalization. In each case the parents must be allowed to be in contact with their sick child.

### **22.3 Communication with elderly patients**

Successful and satisfying communication is the key to fulfilling the needs of elderly patients. First impression is the basic pillar of the later success in conversation, that's why it's important to correctly address the patient and beware of any forms of so-called "*elderspeak*", as a display of disrespect and the age discrimination. Enough time should be reserved for the conversation with the elderly patient, because any possible time pressure can cause the subsequent distractibility of the patient, and premature or delayed reaction. Impatience during the initial parts of conversation can affect the whole conversation by the certain amount of distrust, which could be the result of concealment of information from the patient. On the other hand, the show of respect and empathy have the positive effect on the conversation with the elderly patient.

Some specifics must be added to the universally applicable rules on communication between the doctor and the patient in case of elderly patient, and that's due to an increased likelihood of sensory and cognitive disorders. Any obstacle in the conversation must be revealed in the beginning, so the communication can be adjusted to it. The vocabulary of the conversation should also be adjusted according to the mental capacity of the patient, and the doctor must verify during the communication, that the patient understands everything being said. If it is needed, conversation is slowed down, the information is repeated, or divided to smaller, more easily understandable parts. After the conversation the elderly patients should not only have all the information about their health condition, but also the feeling of trust and satisfaction of their needs. It can be said that the elderly patient is an example of polymorbid patient requiring different approach in regard to his/her needs, wishes and options. While for the medicine such patient represents a huge challenge on how to reflect the need of complex model of health care provision taking into account the needs of this specific group of patients.

### **22.4 Communication with terminally ill patients**

Providing information about the true nature of the disease and its real prognosis to the patient belongs to the one of psychologically most demanding activities. It falls under the competence of the physician and the patients have the right for full and true information, provided in a way that is understandable for them. During the conversation, the doctor is

confronted with the current mental state of the patient, based on which he/she must choose a suitable form and range of the information provided. At the beginning it is best to clarify, whether the patient wants other people present during the conversation, and to what extent he/she wishes to be informed. In regard to this, the whole spectrum of patients is distinguished. From patients who want to be informed about everything, every detail of their disease, prognosis, possible consequences, treatment methods, etc., to patients who passively receive only the basic information, or even patients who refuse to be informed at all and they let this burden fall on the shoulders of their relatives. Despite the patient's terminal illness, it is inappropriate to stress out the irreversibility of the prognosis and take away patient's hope and optimism.

Health care provider must in the cases of terminally ill patients handle not only his/hers personal performance, but also must be ready for sometimes atypical requests and attitude of the patients. In situations where patient's reaction to diagnosis is the isolation from the society and the surrounding environment, the physician must use his/hers conversation skills and find a way to communicate with the patient, because without it, the treatment is not possible. Some tension between the terminally ill patient and the doctor should be respected, and the doctor must in every situation possible show kindness, be honest, and approach the dying patient with the respect for his/her dignity and the right for adequate health care.

## **22.5 Communication with a selected groups of patients**

### ***Patients with impairments and disabilities***

In communication with the patient with physical disability, but without any intellectual disability, the conversation in general should be held in the same manner as with the person without disability. But certain specific requirements apply for the conditions, which must be ensured for these patient. When talking to the patient in wheelchair, the physician should also be in a sitting position. Access for the disabled must be provided, also enough space in the waiting room for the mobility with the wheelchair, and mobility aids always need to be within the reach of the patient. During the hospitalization the patient should be encouraged to be as self-sufficient as possible, and to move as much as possible. We should avoid any ineffective confinement to the bed and the use of devices which are convenient for the staff, but may lead to a loss of dignity and humiliation on the part of the patient (permanent urinary catheter).

Communication with the patient with sensory impairment is governed by the principle, that to provide the information we always try to use the undamaged sense. Therefore in

talking to the patient with visual impairment we use verbal communication, and in case of the patient with hearing impairment we use eyesight. Patients with visual impairment who comes to the doctor's office with a guide dog, should be allowed to have this dog with them the whole time. The rule is that the doctor is the first one who opens the door, introduces him/herself, offers the hand, and leads the patient inside the office. Another rule is also never to move patient's personal belongings. Every departure or arrival to the room should be announced, and the patient must be informed on who is else is present in the room. Even if the patient is accompanied by a second person (guide), the doctor communicates primarily with the patient, not this second person.

Patients with hearing impairment require communication mostly by eyesight. In the beginning of the conversation it's important to clarify the degree of the hearing impairment, whether it is partial, complete, or also with the speech disorder. In case of the partial hearing impairment, we could use verbal communication. It's required first to remove all the distracting sounds, talk slowly, loud enough, and articulate properly. Spoken words can be supported by written text. We must remember that the non-verbal communication has an increased meaning in talking with such patients. In communication with the patient with complete hearing impairment the use of sign language would be most preferable. However, if the doctor doesn't speak sign language, probably the written form could be a substitute enough. The same applies as in the communication with the patient with visual impairment, that if the patient is accompanied by a second person, the doctor still communicates primarily with the patient himself/herself.

Patients with intellectual disability could be either the people affected since birth, or the people with acquired intellectual impairment, most commonly due to dementia in elderly patients. The level of intellectual disability is classified according to the IQ score:

- borderline intellectual functioning (IQ 70-79),
- mild intellectual disability (IQ 50-69),
- moderate intellectual disability (IQ 35-49),
- severe intellectual disability (IQ 20-34),
- profound intellectual disability (IQ under 20).

From all the people with intellectual disability, the most represented is the group affected by the milder forms of this disability. Severe intellectual disabilities are often associated with certain forms of physical disabilities. In communication with the patient with lower intellectual capacity, we concentrate mostly on the ability to understand and comprehend the information provided. Despite their disability they must be informed about their health

condition, this information must be properly explained and their questions must be answered in an appropriate way.

### ***Aggressive patient***

Working with people, not only in health care, but anywhere else, requires a higher demands on communication skills. In every day clinical practice we can encounter a whole spectrum of people, including aggressive patients. Handling a conversation with them is probably one of the most difficult of challenges in communication. The most common trigger for aggressive behaviour of patients is their frustration, as a reflection of a long time dissatisfaction, rather than the reaction to a current occasion. When communicating with the aggressive patient, it's important to think first on our own safety. It is necessary to anticipate a potential danger from the patient and preventively comply with all the safety measures. The basic rule is never to stay alone with the patient in the closed room, without the possibility to call for help. Suitable is the presence of another person (witness), usually a colleague or a superior. The physician always sits closer to the door than the patient, and keeps the safe distance from the patient, which is more than the length of the arm. All the potentially dangerous items must be removed from the reach of the patient. In case the communication is beginning to take the aggressive direction, the physician must end the conversation and save it for another time, if that is not possible try to attempt to de-escalate the conflict, or divert the conversation to another topic. In case of a violent or criminal behaviour, it's necessary to call the police immediately.

### ***VIP (Very Important Person) patient***

In health care, the VIP patients represent a specific group of patients, including government officials, influential people, representatives of the intellectual, moral and cultural elite of the nation. Very often it is also celebrities who are considered VIP patients. From the medical point of view the VIP patient is the same organism as any other, so there is no need for any special VIP medical procedures. However the requirements of prominent people for treatment may sometimes exceed the *lege artis* practice. Hospitalization of VIP patients is under the media spotlight, which makes the doctor's job even more difficult. Another problem is that the VIP patient is often accompanied by various people (bodyguards, agents of secret services, relatives, lawyers), and may require their presence during diagnostic or treatment procedures. VIP patient tends to have special requirements for environment, comfort, diet, or visiting hours. In clinical practice it's possible to apply several principles:

- comply with the system of organization in the workplace, use standard diagnostic and therapeutic procedures,
- work as a team,
- in case of urgent hospitalization enter the health care facility through the backdoor,
- resist any media pressure, maintain confidentiality and protect patient's privacy,
- respond appropriately and be prepared for any aggression and neuropsychological problems,
- refrain from accepting gifts,
- ensure adequate security,
- cooperate with the personal doctor of the VIP patient.

## **22.6 Communication with the relatives of the deceased**

Conversation with relatives of the deceased is very specific in many ways, because it involves a contact with people in their initial stages of mourning. They are vulnerable, confused, but also full of anger and hate. Conversation is taking place in a tense atmosphere, accompanied by strong emotional reactions of the relatives (crying, blame, aggression), disruption of their feeling of integrity, and the sense of stability and the security of their lives. Communication with the relatives of the deceased can take place on different levels. If the patient dies in hospitals it falls under the duties of the attending physician. In case of death outside the health care facility, when the emergency team was called and provided resuscitation, it is then the duty of the emergency physician to talk to relatives, and inform them about the death. However in case of a sudden death outside the hospital, it can be also the doctor called to perform the external examination of the body at the place of death. The request for information about the cause of death of the family member is also something that is very common for the forensic doctors to deal with, when the autopsy is ordered and performed. Proper communication by the doctor can eliminate suspicions and avert potential complaints from the relatives, but above all it can reassure them and enable them to start a process of uncomplicated mourning.

In communication between the doctor and the relatives of the deceased there are few requirements that must be met. The place of conversation should be quiet and peaceful, as much as possible. The conversation should be taking place in a sitting position, as a prevention of the collapse, or an aggressive attack. It is suitable to offer the relatives a glass of water, or tissues, and not prevent them from crying. Professionalism of the doctor is a matter of course. When people are to meet the doctor, they expect that he/she has a neat

appearance and is dressed in white clothing, which is viewed as a symbol of a certain natural authority and competence in the given situation. For the conversation with the relatives the doctor must be adequately prepared, meaning to know who is he/she is going to speak to, for what reason, what about, and what information can be provided. No less significant factor of proper communication with relatives of the deceased is enough time for conversation. They must not feel like the doctor fobbed them off in any way. The doctor communicates in a clear, concise and understandable way, he/she is receptive and empathetic during the conversation. Comforting the relatives and giving them advices about life is purposeless (e.g. *"You have to be strong."*, *"You have your whole life ahead of you."*). If it is possible doctor should provide the assurance to the relatives that the deceased has not suffered unnecessarily. One of the option how to relay to them the comforting information is to state that the of unconsciousness preceded death. It is good to allow the relatives to express themselves, listen without judgement. Sometimes the conversation with the relatives can be the important source of information about the death of their family member.

## 23 Burnout syndrome in medical profession

Medical professions, especially doctors profession, represents one of the extremely demanding jobs. It is associated with the expectation of high professionalism, infallibility, as well as with the huge emotional burden. In this setting of prolonged stress there is a risk of an emotional, mental and physical exhaustions leading to a development of burnout syndrome. It usually occurs gradually and inconspicuously, as a result of a prolonged psychological exhaustion related mainly to intensive contact with the patients, sharing their illness and treatment with them, as well as the great responsibility for patients' health and progress of their therapy. Symptoms of burnout can be divided into three groups, physical, psychological and work related. Examples of symptoms according to their affiliation to one of the groups are listed in Tab. 9.

Tab. 9 Symptoms of burnout syndrome.

Physical symptoms	Psychological symptoms	Work related symptoms
fatigue, exhaustion	irritability	belief that "things have no meaning anymore"
apathy, weakness	feelings of rage and anger	decrease or a complete loss of interest in topics related to the medical profession
shortness of breath	increased sadness	negative view on the institution in which the person works
palpitations	depression	self-pity, feelings of lack of recognition in work
headaches	uncontrollable verbal expressions of anger	negativity, cynicism and increased irritability in relationships with patients
gastrointestinal difficulties	touchiness, suspiciousness	reduction of activity during routine procedures, use of stereotyped phrases and clichés
nonspecific physical pain	avoidance of work duties	feelings of uselessness and worthlessness
insomnia		

The factors associated with the development of burnout syndrome can be classified as work-related and personal. Work-related factors can be further divided into physical,

psychological and other accompanying factors (Tab. 10). Personal ones are represented by certain personality features, like perfectionism, high discipline, self-criticism, high empathy, little flexibility, and indecision.

Tab. 10 Work-related factors associated with the development of burnout syndrome.

<b>Physical factors</b>	static work posture (surgery), disruption of sleeping pattern, irregular eating, contact with drugs, chemicals, disinfection, radiation, high risk of infection
<b>Psychological factors</b>	fast-paced working environment, lot of responsibility, constant need for quick reactions and flexibility, contact with suffering, pain and death, need for communication with patients and relatives, poor salary, high demands on work performance, frequent and non-effective organizational changes, not enough support for professional development, professional uncertainty, increase of inefficient administration, unclear and ongoing or planned changes in work organization, other disturbances (phone calls, etc.)
<b>Other factors</b>	lack of sleep, relax, lack of time for family/friends, lack of time for hobbies, limited social contact

Statistics show that burnout syndrome develops more often in young doctors and those who are single and live alone, in comparison with older doctors, and ones who have partners, children, and families. Also people with addictions (drugs, alcohol, etc.) are in more risk of developing emotional and physical exhaustion. In general the burnout syndrome is more widespread in north Europe, than is south part of this continent. Emotional exhaustion is more common in female doctors than in male ones, but the feeling of depersonalization is more common in male doctors.

Developed burnout syndrome has the impact on doctor – patient relationship in a form of a reduced performance, increased number of medical errors, reduced interest in the patient, choosing ineffective medication/treatment, and the unwillingness for creative thinking. With more and more doctors affected by burnout syndrome, the effect can be seen on the whole system of health care provision, causing many young doctors leaving the medical profession, reduced willingness of doctors for the professional growth. The reduced effectiveness due to the increased number of medical errors also leads to the lack of trust of the public in health care system. The burnout syndrome is a dynamic process, which has its beginning, course and culmination. It's important to detect the early symptoms of burnout and apply preventive measures against its full development.



## Appendices

### Appendix 1 – Hippocratic Oath

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*I swear by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this Art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons labouring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further from the seduction of females or males, of freemen and slaves. Whatever, in connection with my professional practice or not, in connection with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men, in all times! But should I trespass and violate this Oath, may the reverse be my lot!*

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### **WMA INTERNATIONAL CODE OF MEDICAL ETHICS**

#### **DUTIES OF PHYSICIANS IN GENERAL**

A PHYSICIAN SHALL always exercise his/her independent professional judgment and maintain the highest standards of professional conduct.

A PHYSICIAN SHALL respect a competent patient's right to accept or refuse treatment.

A PHYSICIAN SHALL not allow his/her judgment to be influenced by personal profit or unfair discrimination.

A PHYSICIAN SHALL be dedicated to providing competent medical service in full professional and moral independence, with compassion and respect for human dignity.

A PHYSICIAN SHALL deal honestly with patients and colleagues, and report to the appropriate authorities those physicians who practice unethically or incompetently or who engage in fraud or deception.

A PHYSICIAN SHALL not receive any financial benefits or other incentives solely for referring patients or prescribing specific products.

A PHYSICIAN SHALL respect the rights and preferences of patients, colleagues, and other health professionals.

A PHYSICIAN SHALL recognize his/her important role in educating the public but should use due caution in divulging discoveries or new techniques or treatment through non-professional channels.

A PHYSICIAN SHALL certify only that which he/she has personally verified.

A PHYSICIAN SHALL strive to use health care resources in the best way to benefit patients and their community.

A PHYSICIAN SHALL seek appropriate care and attention if he/she suffers from mental or physical illness.

A PHYSICIAN SHALL respect the local and national codes of ethics.

## **DUTIES OF PHYSICIANS TO PATIENTS**

A PHYSICIAN SHALL always bear in mind the obligation to respect human life.

A PHYSICIAN SHALL act in the patient's best interest when providing medical care.

A PHYSICIAN SHALL owe his/her patients complete loyalty and all the scientific resources available to him/her. Whenever an examination or treatment is beyond the physician's capacity, he/she should consult with or refer to another physician who has the necessary ability.

A PHYSICIAN SHALL respect a patient's right to confidentiality. It is ethical to disclose confidential information when the patient consents to it or when there is a real and imminent threat of harm to the patient or to others and this threat can be only removed by a breach of confidentiality.

A PHYSICIAN SHALL give emergency care as a humanitarian duty unless he/she is assured that others are willing and able to give such care.

A PHYSICIAN SHALL in situations when he/she is acting for a third party, ensure that the patient has full knowledge of that situation.

A PHYSICIAN SHALL not enter into a sexual relationship with his/her current patient or into any other abusive or exploitative relationship.

## **DUTIES OF PHYSICIANS TO COLLEAGUES**

A PHYSICIAN SHALL behave towards colleagues as he/she would have them behave towards him/her.

A PHYSICIAN SHALL NOT undermine the patient-physician relationship of colleagues in order to attract patients.

A PHYSICIAN SHALL when medically necessary, communicate with colleagues who are involved in the care of the same patient. This communication should respect patient confidentiality and be confined to necessary information.

## Appendix 3 – Code of Student Conduct (UPJŠ in Košice)

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Košice on 18/09/2014

Guarantor: Rector's Office

File No. 3756/2014

### **Pavol Jozef Šafárik University in Košice Code of Student Conduct**

#### **Preamble**

The present yields many changes and raises topical challenges for the academic system that require adequate responses. Therefore, the appropriate response is a priority given to *education* as a key value. Pavol Jozef Šafárik University in Košice (the "University" or "UPJŠ") honours this in its slogan: *wisdom of the past - knowledge of the present - education of the future*. One of the instruments for implementing this vision is the *UPJŠ Code of Student Conduct* (hereinafter the Code of Conduct), which may contribute to improving competitiveness of the University and its sustainable development. It represents a *moral standard* for the students, which is in conformity with the Constitution, with Law Act No. 131/2002 Book of Statutes on higher education and on amendments to certain law acts as amended (hereinafter referred to as HELA), the UPJŠ Statute and other provisions that relate to the study at UPJŠ and other institutional and legal standards adopted by UPJŠ. In pursuing the principles of humanism and democracy, the personality of a university student is characterized by moral qualities associated with humanity, prudence, responsibility, fairness, decency, and a sense of duty. Application of these qualities is becoming a regulator of the behaviour of students in a range of relationships into which they are involved during their course of study at UPJŠ.

#### **Article 1 Students' relationship to the university and their faculty**

1. Students are aware of their belonging to the University, to their faculty and their academic units (departments, institutes, clinics, and others.). They are to be proud of their identity of a UPJŠ student.
2. Students should therefore be loyal, have a positive attitude to the University, their faculty and the academic workplaces where they study.

3. Students should realize that they represent their University and the faculty in the public, they do not harm its reputation by their behaviour, but set a good model to others by their behaviour, thinking, communication, and action.
4. Students are to have a positive attitude to the property of the University and the faculty; they are to regard it, save and protect it because thanks to it they can learn. The same applies to the protection of intellectual property from which they draw knowledge.

### **Article 2 Relationship of students to study**

1. Students shall have the right to enjoy academic freedoms and rights in accordance with the principles of democracy, humanity, moral standards, and legislation.
2. During their education, students shall take a professional attitude to their study and their study requirements.
3. Students are to strive for their ongoing professional advancement and development of their professional skills that are to be consistent with their personality and moral maturation. They are to acknowledge that honest training for future employment requires a lot of work and effort.
4. Students shall take a responsible approach to their study. They are to actively participate in the educational process throughout the semester, to timely perform their assignments and during the semester and take a honest approach to their assessment and evaluation output during the examination period. During their study, they shall avoid any plagiarism and unacceptable forms of compilations.
5. During their field trainings, teaching activities, study sojourns or other types of stays outside the University, students shall behave courteously, politely, and shall perform their obligations in a responsible way. In this way, they shall confirm not only their academic, intellectual, and moral qualities, but also the level and reputation of the University.
6. Students should dress decently, in accordance with good manners and appropriate for individual events held under the auspices of the University.

### **Article 3 Relationship of students to teachers and other staff**

1. Students are to pay tribute to and show respect for academic officers, teachers, and other employees. By doing so, they develop their identity of a student and open up to deep humanity that forms mutual trust.

2. Students in their personal and electronic communication are courteous, polite, they express the facts and have adequate realistic expectations. They honour professional etiquette and good manners.
3. Students avoid manipulation of teachers and other staff, as well as refrain from misleading them for the purpose of winning short-term benefits and advantages.
4. Students reject any form of corruption.
5. Students reject any benefits that might follow from their relationship to their teachers. They organize their study by avoiding being taught by a direct relative as far as practicable. If this is not possible, assessment by a relative without the assistance of colleagues from the academic workplace on a decision of the head of the department is ethically unacceptable.

#### **Article 4 Relationship of students to other students**

1. Students behave to other students and colleagues with respect and dignity. They are obliged to respect their human dignity and refrain from any action that would limit or disparage it.
2. During their internal and external learning activities, or, respectively, in the premises of the University or the faculty, students shall not implement any activities that could damage the reputation of the University and would fail to respect the legal and moral order.
3. Students try to help other students in studying and learning activities in accordance with morality and moral standards.
4. Students shall refrain from any form of discrimination against their colleagues. They shall not do anything to insult and degrade their human dignity.

#### **Article 5 Sanctions**

1. The purpose of the Code of Student Conduct is not imposing sanctions, but call for mutual respect, decency, and moral standard that should be characteristic of the human being and his/her dignity. Let us act in accordance with the golden rule of morality: *Let us not do to others what we do not want others do to us.*
2. In the event of proven infringement of the Code of Conduct by students, each member of the UPJŠ academic community may take the initiative to have the case investigated by the UPJŠ Ethics Committee President that will judge the seriousness of the breach of this Code of Student Conduct in accordance with its rules of procedure. Based on the opinion of the Ethics Committee, the Rector notifies the student of the breach of the UPJŠ Code of Student Conduct. The Rector will send a copy of the notice of violation of the Code of Student Conduct to the incentive submitter and to the dean of the faculty.

### **Article 6 Final provisions**

This Code of Conduct shall enter into force on the date of its approval by the UPJŠ Academic Senate, i.e. on 18/09/2014.

Prof. MUDr. Ladislav Mirossay, DrSc.  
UPJŠ Rector

Assoc. Prof. Imrich Kanárik, CSc.  
UPJŠ AS President

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<https://www.britannica.com/topic/Hippocratic-oath>

## MEDICAL ETHICS

*Textbook*

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**Publisher:** Pavol Jozef Šafárik University in Košice

**Technical Advice:** University Library at Pavol Jozef Šafárik University in Košice  
<http://www.upjs.sk/pracoviska/univerzitna-kniznica>

**Year:** 2017

**Pages:** 119

**Author's sheets:** 7,08

**Edition:** first

**Available at:** <https://unibook.upjs.sk>

**Publication date:** October 2017

ISBN 978-80-8152-545-2