

## **Ethics and cardiopulmonary resuscitation**

### **Introduction**

Ethics is considered a philosophical discipline that deals with the study of morality, morally relevant behavior and its norms. Furthermore, the principles that guide a person's actions in situations where there is a choice based on free will are examined. Human activity is evaluated in terms of good and evil (1).

A specific area is medical ethics. It examines the morale and attitude of healthcare professionals towards the patient.

One of the ethical dilemmas concerns cardiopulmonary resuscitation. In particular, the rescue service's outgoing crews deal with these issues regularly in contact with the critically ill and his family.

### **Ethical principles**

The basic ethical principles include:

Non-maleficency - the principle of harm. If the doctor is not able to treat him properly, he should not hurt. Damage to the patient includes poor diagnosis, incorrect treatment and therapy, poorly performed surgery. In the Czech environment, depersonalization of a patient is often considered damage to the patient, when the patient is considered an object or thing. It is correct to note that the patient's injury is usually not intentional but due to staff negligence.

Beneficence - the goal of the principle is to do good to the patient. The basis of the modern approach is an individualized ad hoc approach to each patient's situation. A question related to the topic of the work arises - is it better to preserve the patient's life against his will, or to respect his autonomy?

Autonomy - the essence of the principle is that the doctor and the patient are partners. Together, they ideally agree on the next steps. A possible alternative to the principle is the paternalistic approach of the physician. It is approached in situations where the patient does not accept another approach.

Justice - the principle of justice in a simplified form deals with the necessary respect for the environment, which may be affected by my illness, eg during infections. It is up to the doctor to explain this rule, or it is possible to use existing legislation. Part of the principle is the so-called right to health care, if the company (state) declares it by law (2, 3, 4).

## **History of ethics**

Medical ethics comes from ancient civilizations. Mentions are in ancient documents, or eg the Hippocratic Oath. The documents focused mainly on the characteristics of health care providers and the relationship between doctors and patients. In modern times, ethics is strictly assessed about cases of ignoring ethics and patients' rights, especially in the last century (5).

## **Cardiopulmonary resuscitation**

Cardiopulmonary resuscitation is a set of consecutive actions that lead to the immediate resumption of oxygenated blood flow through the brain in the event of a failure of basic vital functions.

We distinguish two types of emergency resuscitation. Basic and advanced. Basic resuscitation is a simple procedure without the need for additional specialized aids and is performed by witnesses of the incident. Extended emergency resuscitation is then reserved for professional resuscitation teams with specialized equipment (6).

The first "European" guidelines were issued in 1992 to unify resuscitation efforts. The main principle of issuing these uniform procedures is to ensure adequate care for all patients in civilized countries. Guidelines are based on evidence-based practice. The individual links describe in detail the procedures in the individual age categories and are regularly updated. The recommended procedures also include chapters referring to medical ethics in connection with emergency resuscitation (6).

## **Ethics in emergency resuscitation**

The guidelines issued by the European Resuscitation Council refer to ethical guidelines for use in end-of-life decision-making by children and adults on the following points:

### *Patient preferences and treatment decisions*

- Using a joint decision - doctor + patient to plan future treatment. This increases the agreement between the treatment provided and the patient's expectations.
- Actively plan future care for all patients who are at real risk of cardiac arrest and subsequent low quality of life after successful emergency resuscitation.
- Support the planning of further care at the request of the patient.
- actively record the future care plan through electronic records and registers.

- specify individual steps in care plans, eg securing the airways. The goal is to reduce misunderstandings and prevent unwanted failure to provide treatment where indicated.
- Cardiopulmonary resuscitation should not be provided by healthcare professionals if they deem it in vain.

### *Improving communication*

- Healthcare professionals should be trained in communication and be able to communicate adequately with the patient when communicating bad news.
- It is necessary to provide information about the patient's poor prognosis and health truthfully and honestly.
- It is advisable to involve family members in the discussion on the plan of further care.
- the possibility of recording interview records for retrospective review and analysis is recommended.

### *Deciding when to start and when to stop cardiopulmonary resuscitation*

#### Withholding and Withdrawing CPR

- Cardiopulmonary resuscitation should be considered a conditional treatment by the public and healthcare professionals.
- Criteria for not starting or ending cardiopulmonary resuscitation must be included in accordance with legislation and cultural practices.
- Clear and measurable criteria must be established for not initiating or terminating emergency resuscitation. A specific factor is a previously expressed wish. The recommended procedures define criteria that are not a separate reason for not starting or ending emergency resuscitation.
- each case of non-initiation or termination must be recorded in the medical records. these cases should be reviewed retrospectively.
- A specific group of patients are indicated for transport during continuous resuscitation to the hospital.
- The Guidelines make it clear that health professionals should not be involved in so-called "play" resuscitation. E.g. poor emergency resuscitation, resuscitation for social reasons.
- In times of pandemic, it is necessary to consider the use of specific resources with regard to their availability. The quality of life of a patient with successful emergency resuscitation must be considered. Evaluation criteria must not be general, such as the patient's age.

### *Family presence during resuscitation*

The resuscitation team should consider the presence of the family during an ongoing emergency resuscitation if the family expresses an interest. At the same time, it is necessary to set aside one member of the resuscitation team, who will be available to the watching family. Healthcare professionals must be trained to communicate with family members during emergency resuscitation.

### *Patient outcomes and ethical considerations*

Healthcare systems should evaluate the emergency resuscitation performed and take steps to reduce system variability. Emergency resuscitation research should have a clearly defined data set (7.8). The quality of emergency resuscitation is monitored on a long-term basis. The Czech Republic was part of an extensive study evaluating the results of emergency resuscitation. The results achieved by the rescue services in the Czech Republic are very positive and in many criteria exceed the expected values (9).

### *Previously expressed wishes and Do not resuscitate (DNR)*

Do not resuscitate is indicated by the attending physician based on an evaluation of quality of life and expected treatment outcomes. If intensive care is not promising or the patient's expected quality of life is very low, a decision is made in consultation not to initiate emergency resuscitation in the event of a failure of vital functions. As mentioned above, all treatment should be effective. Recently, the COVID19 pandemic may have a higher incidence of DNR indications due to insufficient hospital capacity (10).

The previously stated wish is relatively new in the Czech legal context. In the Health Services Act no. 372/2011 Sb. it states that "the patient may, in the event that he or she finds himself or herself in a state in which he or she is unable to express consent or disagreement with the provision of health services and the way in which they are provided, give his or her prior consent". At the same time, it is forbidden to discontinue such treatment if it leads to the death of the patient, unless a previously stated wish has been known and substantiated and treatment has already begun. It is possible to make a previously expressed wish even before the performance itself. This will be done before the witnesses, the entry in the medical records and the witnesses will sign the declaration.

## *Hollywood resuscitation*

Unofficial name for resuscitation, which is provided by professional teams. This resuscitation is ineffective, playful and feigned. Why do resuscitation teams do it? The main reason is reassuring the family that everyone is trying to save human life. Another reason may be the effort to avoid confrontation of the family and surroundings, that the effort to resuscitation is not enough. Communication and communication of annoying messages are also a problem (9). Does mock resuscitation happen today? Yes, it's happening. It was yesterday, it is today and it will be tomorrow. Although this is contrary to the rules set out above and against ethics, the elimination of this theater is unlikely. Data is missing, nobody brags about it.

From the second point of view, if we imagine a situation where a layman provides quality emergency resuscitation in an effort to save a human life, the rescue crew arrives and says immediately that it does not make sense. Result? Absolute demotivation for the lay savior. He tried, the professionals wouldn't even try. Isn't it better to play resuscitation for a while?

## **Conclusion**

Ethics and medical ethics are very extensive scientific disciplines. Their development has been going on for thousands of years and is still not over. The essay deals only with the marginal part of ethics - ethics in cardiopulmonary resuscitation. The rules are based on Guidelines, which are regularly updated and expanded. Nevertheless, there are debatable chapters that can be considered unethical from one point of view, and at the same time motivational for the surroundings.

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