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The issue of establishing and declaring death by Medical Emergency Teams of the State Emergency Medical Services

Problematyka stwierdzania i rozpoznawania zgonów przez zespoły ratownictwa medycznego systemu Państwowego Ratownictwa Medycznego

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S u m m a r y

Withdrawing and withholding medical emergency treatment by medical emergency teams in the context of establishing and declaring death are one of the most difficult decisions the healthcare professionals must face. These issues are often raised by the practitioners, mainly due to their significance. The legislator also addressed these matters and indicated that basic medical emergency teams in the course of performing their statutory duties may be involved in the events in which they need to withdraw the medical assistance and subsequently declare death. However, if there is no physician in the team, the personnel has limited possibilities.

Therefore, the primary objective of this paper is to present the concept of withdrawal from medical emergency treatment in the context of establishing and declaring death by the medical emergency teams (METs).

When we analyse legal acts and specialised literature on this topic, we will conclude that they are problematic and ambiguous.

At this point it is essential to have the authority to declare death and issue death certificate. The solutions employed to date are far from perfect – they entail doubling the teams to assist one incident – initially basic medical emergency teams are delegated, then specialised medical emergency teams are sent to the first team to help them, but often only to declare death. That is why it is necessary to implement new solutions in this field which will be more suitable to the current needs.

S t r e s z c z e n i e

Odstąpienie od medycznych czynności ratunkowych oraz niepodejmowanie medycznych czynności ratunkowych przez zespoły ratownictwa medycznego w kontekście stwierdzenia i rozpoznania zgonu są jednymi z najtrudniejszych decyzji, z jakimi borykają się pracownicy ochrony zdrowia. Kwestie te podnoszone są bardzo często przez praktyków, głównie ze względu na znaczenie wspomnianych decyzji. Są one poruszane także przez ustawodawcę, który wskazuje, że podstawowe zespoły ratownictwa medycznego, realizując swoje statutowe zadania, również mogą uczestniczyć w zdarzeniach skutkujących koniecznością odstąpienia od wspomnianych czynności i następczym stwierdzeniem zgonu, ale nie posiadając lekarza w zespole mają one ograniczone możliwości działania.

W związku z tym zasadniczym celem artykułu jest przedstawienie zagadnień odstąpienia od medycznych czynności ratunkowych w kontekście rozpoznania i stwierdzenia zgonu przez zespoły ratownictwa medycznego (ZRM).

Analiza obowiązujących aktów prawnych oraz piśmiennictwa specjalistycznego dotyczącego charakteryzowanego zagadnienia wskazuje, że są one problematyczne oraz niejednoznaczne. Istotne znaczenie ma tutaj możliwość stwierdzenia zgonu oraz wystawienia karty zgonu. Dotychczasowe rozwiązania nie są idealne i przyczyniają się do podwójnego dysponowania zespołów ratownictwa medycznego do tego samego zdarzenia – początkowo podstawowych zespołów ratownictwa medycznego, a następnie zespołów specjalistycznych, które przybywają na miejsce zdarzenia w celu pomocy ZRM „P”, co nie rzadko kończy się jedynie stwierdzeniem zgonu. Dlatego też konieczne jest wprowadzenie nowych rozwiązań w tym zakresie, które będą bardziej adekwatne do współczesnych realiów.

THE CONCEPTS OF ESTABLISHING AND DECLARING DEATH

Death, often termed as cessation of life (Latin *mors, exitus letalis*) is a state of cessation of all signs of life caused by irreversible disturbance of functional balance and destruction of integrity of the human body. The factors usually leading to death include physiological process of ageing of an organism, extreme malnutrition, severe dehydration, certain diseases, and suicide (1).

For many centuries, the definition of death encompassed the cessation of all respiratory and circulatory functions, with the moment of death being the last breath or the last heart beat which could be heard (2). Nowadays, technological advancements in resuscitation and anaesthesiology allow to sustain ventilation of the lungs and circulation with the use of artificial methods. Hence, a new definition of death had to be adopted. According to the new definition, the basic element to establish death is to state the brain death. It is generally known fact however, that the brain cells do not die simultaneously, thus new modifications of the definition of death followed and it has been stated that death may be declared the moment the brain stem dies which implies the brain death as a whole. But here it should be emphasised that when death of the brain stem is established, all the other brain cells are dead (2).

However, according to the Act of 1 July 2005 on collecting, storing and transplanting the cells, tissues and organs, a person is assumed dead, if permanent, irreversible cessation of brain function (brain death) or irreversible cessation of circulation can be established (3). Here it should be also underlined that the detailed criteria and description of the manner of establishing death and irreversible cessation of circulation are defined in the attachments to announcement of the Minister of Health of 17 July 2007 and 9 August 2010.

In it, the provided definitions regulate the concept of death in the legal context. But the process of dying itself cannot be reduced to only one moment. In the medical context, this process involves several stages. One of them is agony – a state of labile balance between life and death which includes (4):

- reduced life, that is a state which involves a weakening of physiological processes and functions of the body's systems and organs,

- minimal life, that is a state in which there is further slowdown of the functions of the body as a whole and its particular systems,
- apparent death, often termed lethargy, it is a stage of minimal life in which vital functions of the organism are reduced to such an extent that they may often be undetectable by the physician who uses conventional physical methods (he is not able to feel the pulse and hear the heart sounds).

Other states that are strictly connected with the human death are as follows (4):

- clinical death, that is a complete cessation of functioning of circulatory and respiratory system, however this state is reversible. Clinical death is a moment separating the agony with its characteristic, reversible changes from the interlethal stage where irreversible changes occur,
- interlethal stage in which two states simultaneously occur in human: the state of intermediate life, where it is possible to obtain adequate reaction of organs or systems and the state of biological death, in which a cessation of all the vital processes of the cells, tissues, organs and systems occur.

When analysed as a legal event, death is the result of dying of a natural person which entails effecting a number of legal provisions and which has many legal consequences. Death itself is stated in the death record based the issued death certificate. If no death certificate was prepared or if it is not possible to prepare it, death is declared by means of the procedure to establish death or by presumption of death (4).

THE PROCEDURE OF DECLARING DEATH

According to the provisions in force for many decades and often inadequate to the current situation, death and its cause are stated in the death certificate. The person responsible for declaring death in this situation is the physician who has been treating the patient's most recent condition (5). In practice, it is usually the physician who has provided healthcare services to this patient in the last 30 days before death occurred. Here it should be stressed however, that there are exceptions to this rule. These exceptions concern situations in which if the physician attending the patient in

his/her last disease cannot issue the death certificate, then other physician or person appointed by a competent district governor may declare death after examining the body (5, 6). In view of the above and in the current legal situation, it is assumed that only the physician can declare the patient's death. The physician is also responsible for issuance of death certificate. It is assumed however, that the death certificate should be issued by the doctor whom the patient had chosen as a primary care doctor (6). This is a typical procedure in the case of deaths caused by long-lasting or severe illness of the patient.

However, different procedure is applied if death is caused by serious accident or other sudden, life-threatening incident.

In these circumstances, the obligation of the primary care doctor who attended the patient to issue death certificate has been abolished. This obligation has been passed to the physician sent to the incident. It often happens that such physician is the leader of specialised medical emergency team sent to the incident. This physician must also fill in the death certificate (6).

In the context described above, the important fact is that from 1 January 2007 by way of amendments to the Act on the State Emergency Medical Services there are two types of medical emergency teams within the emergency medical system in Poland (7), mainly:

- specialised medical emergency teams consisting of paramedics, nurses of the emergency medical system and doctors,
- basic medical emergency teams consisting of paramedics and nurses of the emergency medical system.

It is not difficult to notice in the above described division that basic medical emergency teams, which account for over half of all medical emergency teams, do not have physicians authorised to issue death certificates among their personnel. At the same time, taking into account the number of basic medical emergency teams, it should be assumed that part of the incidents where there is a need to declare death and issue the death certificate receive the emergency teams with no physician among its members. In such cases, the paramedic or nurse of emergency system coordinates the rescue operation on the basis of their qualifications. Based on his/her qualifications, medical emergency technician is also empowered to withdraw from performing medical emergency care (8). Simultaneously, while exercising his/her rights and refraining from medical emergency treatment, the paramedic has no legal tools to declare death (6). In the cases when the patient dies, the paramedic has to inform the medical dispatcher about this incident, who can send specialised medical emergency team to the site to finalise the order (6, 7).

Practice shows that such procedure requires sending two medical emergency teams to one incident. This, in turn, may reduce the safety of the region covered by emergency medical services during formal procedure of declaring death. Not to mention the fact

that such action raises the cost assigned to finalise a single order (6).

ATTEMPTS TO SOLVE THE PROBLEM

All the factors described above cause that medical circles, organisations and associations connected to emergency medical services want to create common solutions in this field. They are also trying to make the competent Minister of Health perform his/her duty under Article 43 of the Act on the State Emergency Medical Services. Under this provision, the competent Minister of Health is obliged to issue, by way of regulation, standards of procedure for medical emergency teams and the person coordinating medical action. Such standards would also include standard procedure of withdrawal from medical emergency treatment, withholding medical emergency treatment and declaration of death. Up till now, medical emergency technicians must abide by the provisions of the announcement of the Minister of Health of 9 August 2010 concerning criteria and the manner of declaring irreversible cardiac arrest (6, 9). It should be noted that the said announcement was not prepared to facilitate the work of medical emergency teams but rather for the purposes of the Act of 1 July 2005 on collecting, storing and transplanting the cells, tissues and organs (3, 6).

CONCLUSIONS

Research up to date on the functioning of the Polish healthcare system and one of its components – the State Emergency Medical Services indicate quite clearly that basic medical emergency teams are often sent to the incidents involving sudden cardiac arrest. The analysis also shows that in such situations basic medical emergency teams have no problems with making correct diagnosis of cardiac arrest and institution of medical emergency treatment which is adequate to the victim's condition. Thanks to their actions spontaneous circulation often returns without the help of specialised medical emergency teams. Unfortunately, there are situations in which the victim dies as a result of the incident even before medical emergency team arrives or in spite of numerous efforts undertaken by the nurses and technicians of basic medical emergency team the circulation and respiration cannot be resumed (10).

Analysis of the applicable legal provisions and specialised literature related to withdrawing and withholding medical emergency treatment indicates that these issues are still problematic and unclear. The essential issue in this context is the ability to declare death and issue the death certificate mainly by indicating persons directly responsible for these actions.

Specialists also point out that the discussed problem is of interest not only to medical circles but also the whole society as well as the Ombuds-

man. Additionally, local administrative authorities are interested in finding the best possible solution to this issue. They are reluctant to bear additional costs connected with the need to declare death by specialised team which must be additionally sent to the incident (6).

The proposed solutions regarding ability of the paramedics to declare death raise many doubts. It cannot be overlooked though that the paramed-

ics already have the right to withhold medical emergency treatment. At the same time, it seems unrealistic to introduce algorithms which would enable to arrange the emergency teams as early as at the stage of calling an ambulance to select the calls that stand a chance to save the life and health of a victim from those which require declaration of death and issuance of proper documentation (2).

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