

Accurate Completion of Medical Report on Diagnosing Death

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SUMMARY

Diagnosing death and issuing a Death Diagnosing Form (DDF) represents an activity that carries a great deal of public responsibility for medical professionals of the Emergency Medical Services (EMS) and is perpetually exposed to the control of the general public. Diagnosing death is necessary so as to confirm true, to exclude apparent death and consequentially to avoid burying a person alive, i.e. apparently dead. These expert-methodological guidelines based on the most up-to-date and medically based evidence have the goal of helping the physicians of the EMS in accurately filling out a medical report on diagnosing death. If the outcome of applied cardiopulmonary resuscitation measures is negative or when the person is found dead, the physician is under obligation to diagnose death and correctly fill out the DDF. It is also recommended to perform electrocardiography (EKG) and record asystole in at least two leads. In the process of diagnostics and treatment, it is a moral obligation of each Belgrade EMS physician to apply all available achievements and knowledge of modern medicine acquired from extensive international studies, which have been indeed the major theoretical basis for the creation of these expert-methodological guidelines. Those acting differently do so in accordance with their conscience and risk professional, and even criminal sanctions.

Keywords: expert-methodological guidelines; medical report; diagnosing death

INTRODUCTION

Cardiopulmonary resuscitation (CPR) represents a sequence of procedures with the goal of restoring spontaneous circulation and breathing in resuscitated persons [1].

CARDIAC ARREST

Cardiac arrest (CA) is the leading cause of death in the world, with an annual incidence of about 700,000 cases in Europe alone [2]. As one of the most emergent medical conditions, CA is the most frequent out-of-hospital (OH) occurring event [1]. According to the Utstein definition, CA is the cessation of cardiac mechanical activity as confirmed by the absence of consciousness, palpable pulse and apnea or agonal breathing [3].

Clinical death is the condition occurring immediately after the cessation of breathing and heartbeat, and before the brain cells die, when it is still possible to resuscitate the person by CPR. The time period from the cessation of breathing and/or heartbeat until the brain cells die is variable, but it mostly lasts from three to five minutes. Hypoxic brain injury develops four minutes after CA and is irreversible unless CPR is initiated during the next 12 minutes. Exceptions are children, patients with hypothermia or acute poisoning [1].

The norm is to resuscitate any patient who has a chance of recovery, or when there are no sufficient data on the mechanism of injury, i.e. on the course of the patient's pathological con-

dition [4, 5, 6]. In hypothermic and drowning persons or if CA cause is unclear, the process of resuscitation should be immediately initiated.

CPR is not initiated if CA had lasted for more than 20 minutes, if asystole confirmed in two leads lasts for over 30 minutes, in terminal phase of incurable diseases, in case of evident signs of sure death, signs of tissue decomposition and in case of severe destructive injuries evidently incompatible with life [6, 7].

There are general rules on the duration of CPR [1, 3]. CPR should be continuously applied until spontaneous circulation has been restored or as long as there is pulseless VF/VT. CPR is prolonged in a CA caused by hypothermia.

Cessation of CPR is justified when there are signs of irreversible cardiac death (asystole confirmed in two leads lasting for over 30 minutes despite CPR) [3].

CA is diagnosed by rapid triage of certain and uncertain signs [8].

A. Certain signs of CA: loss of consciousness, cessation of breathing (agonal breathing or apnea) and absent carotid pulses.

B. Uncertain signs of CA: changed color of the skin and visible mucosa, mydriasis and EKG recording.

DIAGNOSING DEATH

Diagnosing death is performed based on the signs of death, which, defined on their confirmed values, are divided into three groups: uncertain, probable and certain [9].

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Type of death

Agony or death rattle is a collection of all events that precede a quick or slow death.

Apparent death is the condition when life activities are reduced to a minimum compatible with life. It can last for hours, but 24 hours at the most. Apparent death can be suspected in the following cases:

- if minimal life activities can be noted,
- if probable and certain signs of death have not manifested within the usual time,
- in sudden death of adults and children,
- in poisoning with psychoactive substances, hypothermia, apoplexy, uremia.

In such cases CPR should be applied rapidly and without exception, in accordance with official protocols.

True death implies an irreversible cessation of the activity of the central nervous system and essential life functions, circulation and breathing, which is followed by the occurrence of the signs of death.

COMPLETION OF MEDICAL REPORT FORM

In the Medical Report Form (MRF) (Figure 1), check the box indicating the degree of emergency, state the time the call was received by the medical emergency telephone service and the time of dispatching it to the Emergency Medical Team (EMT).

State the patient's personal data obtained by the dispatcher and the patient's address, and whether the intervention is in a public place or at the patient's residence or other location. State the reason for the call to the EMT. Unless police officers are already present, and the EMT assesses that their assistance would be needed, inform the dispatcher about it. Call the police in case of any of the following:

- Unsafe approach to event location;
- Verbal or physical attack on the EMT;
- Impossibility to identify the deceased;
- Death of a foreigner or death at someone else's residence;
- Sudden death;
- Obscure circumstances of death occurrence;
- Violent death;
- Evidence of violence;
- Death at a public site;
- Death in the emergency vehicle during transport and
- Unwitnessed death.

On arrival at the site, state data from the identification document (ID) with a photo of the bearer (ID card, passport, refugee ID, driver's license): patient's first name and surname, Unique Master Citizen Identifier (UMCI), address, place of residence and ID number [10].

For deceased newborns without a registered name in the Register of Births prior to death, the following data is stated: male/female newborn with maternal first name, middle name and surname.

If reliable identification of the deceased is not possible in any of the aforementioned ways, the physician is obliged

to pass the information immediately to the competent police office. MRF with personal data obtained heteroanamnestically cannot be issued for an unidentified deceased person; instead, such a person is referred to by a placeholder name N.N., with stated gender and approximately assessed age.

For children up to the age of seven days, also fill in hour and minute of birth from the medical record or heteroanamnesis in case of newborns born at home before the arrival of the EMT.

State the place of residence from the ID, house number and name of the street or inhabited settlement, municipality, and the republic of the last (permanent) place of residence of the deceased.

For foreigners who die on the territory of Serbia the following is to be stated: place of residence and the country of origin, i.e. permanent place of residence until the moment of death.

For refugees and displaced persons from the territory of Kosovo and Metohija state the following: name of the street and house number, place and municipality of the last residence.

As the place of residence of a deceased newborn state the paternal place of residence if father is the citizen of the Republic of Serbia while mother is a foreigner with the place of residence abroad.

Stated time entries are the crucial part of the MRF and sometimes only they can successfully defend us at court proceedings! [5]

For these reasons it is necessary to indicate exact date of intervention and precisely fill in all the times in the MRF:

- Time of call received by the medical emergency telephone service;
- Time when the call was dispatched to the EMT;
- Time of the EMT arrival at site of event and
- Time when the intervention is completed and the EMT informs the dispatcher of being free for the next dispatch.

Taking anamnestic/heteroanamnestic data

This is the most significant part of the MRF in case of diagnosing death; therefore, data should be taken precisely and carefully filled in. It is necessary to state data on previous diseases and treatment obtained anamnestic/heteroanamnestically and from medical records if available [11].

If the patient is encountered with vital signs, but death occurred during the intervention [12], the following should be done:

- Describe main complaints;
- Indicate the time of complaints onset, describe their course and dynamics;
- Indicate the time of CA onset during intervention and previously applied diagnostic and therapeutic measures;
- Describe encountered body position;
- Describe circumstances under which CA developed;

DEATH DIAGNOSING FORM	
0 0 0 0 0 0 0	
SURNAME, PATERNAL NAME AND FIRST NAME OF DECEASED	SEX M <input type="checkbox"/> F <input type="checkbox"/>

PLACE AND DATE OF BIRTH:	TIME OF DEATH DIAGNOSING:
_____	_____
PLACE OF DEATH:	PRESENT YES <input type="checkbox"/>
_____	(CALLED) POLICE NO <input type="checkbox"/>
(Street and number)	_____
In _____	_____
_____ year	(Signature and facsimile of physician certifying death)
Note: This form cannot be used to bury the deceased. For further procedures contact the Office for Certification of Time and Cause of Death, and in suburbs a relevant healthcare center. Tel. 011/323-14-23; 0-24h.	

Figure 2. Death Diagnosing Form

- Indicate initial rhythm of CA and state the changes of rhythm if developed;
- Indicate if CPR was performed and define the diagnostic algorithms, and describe the response to applied CPR measures;
- If CPR is not performed, state reasons for this decision.

If the patient is encountered without vital signs, state the following significant heteroanamnestic data obtained by the present persons:

- Whether CA occurred in the presence of witnesses, and state as precisely as possible the time from which the person was without signs of life, and duration of the state;
- Whether basic resuscitation measures were applied by witnesses before EMT arrival, which ones and their duration;
- If CA occurred without the presence of witnesses, state the time of the last contact with the victim;
- Circumstances under which CA occurred;
- Position in which the person was encountered;
- All visible signs of CA, visible signs of violence, visible injuries [5];
- Uncertain, probable or certain signs of death if present;
- Data on previous diseases and treatment;

- If CPR is not performed, state reasons for this decision [13].

If indications are determined for CPR initiation or CPR continuation if already started by laymen, state the following: whether CPR was performed and under which algorithms [1]; time of CPR initiation; initial rhythm of CA; response to applied CPR measures, state changes of CA initial rhythm if developed; final outcome of CPR.

In physical findings describe vital functions, changes of vital parameters, if developed, and the time when the changes were detected. Also, describe visible injuries and signs of violence if present, and mark initial arrest rhythm and its changes, if developed [14].

In the part of the MRF referring to therapeutic measures and procedures state the following:

- Applied CPR measures;
- Administered drugs, the dosage, as well as the mode and time of drug administration [1, 5].

If the outcome of CPR was negative, record EKG findings and note asystole in at least two leads. Attach the recording to the Death Diagnosing Form (DDF) – it is advised to make the recording in two copies; a copy is filed with a copy of the DDF [15, 16].

In the adequate box of the MRF state the number of the DDF and the time of the diagnosed death [17]. Also, in

the provided box, state the working diagnosis, as well as other diagnoses, with appropriate ICD codes. The physician has an obligation to confirm the completed MRF with a signature and a valid facsimile[10].

COMPLETION OF THE DEATH DIAGNOSING FORM

If an intervention ends with a lethal outcome for the patient, the physician is under obligation to complete the DDF (Figure 2). This form is printed in duplicate. The original of the form is left to the relatives of the deceased or police officers if present at the intervention, while the duplicate is kept by the physician [18].

Paternal first name, deceased's name, surname and place and date of birth – these data are obtained from the ID with a photo of the bearer. If such a document is unavailable, then the deceased is given a placeholder name N.N., and only gender and age according to the physician's evaluation are stated.

Place of death – state the exact address where death was pronounced.

Time of ascertained death (day, hour and minute) [10, 15]. If, based on the available data and performed examination, the physician assesses that there are no indications for initiating CPR, the time when this decision is made as well as the time of diagnosed death are filled into the form.

If CPR was necessary and performed sufficiently long according to the corresponding protocol, but with a negative outcome, the time of ascertained death is the time when the decision was made to stop CPR, which is when, at the end, asystole is confirmed by EKG in at least two leads. It is also recommended that such an EKG recording should be attached to the DDF.

The number of the DDF is entered into the MRF in the appropriate box, as well as the time of diagnosed death.

And finally, the physician is obliged to put a readable signature and a valid facsimile at the end of the form.

Note: It is not allowed to bury the deceased using this form only. The Office for the Certification of the Time and Cause of Death is authorized for further procedures regarding deceased persons on the territory of Belgrade, Serbia. Telephone number of this Office is stated at the right footer of the page. In the city suburbs the relevant healthcare center has the same role.

At the end, moral obligation of each EMT physician is to apply, in the process of diagnostics and treatment, all available achievements and knowledge of modern medicine acquired from extensive international studies, which have been indeed the major theoretical basis for the creation of these expert-methodological guidelines [19]. Those acting differently do so in accordance with their conscience and risk professional, and even criminal sanctions [20].

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Правилно попуњавање лекарског извештаја приликом констатације смрти

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КРАТАК САДРЖАЈ

Дијагностиковање смрти и издавање потврде о утврђивању смрти је одговорна и професионална јавна активност лекара службе хитне медицинске помоћи (ХМП), која је стално изложена контроли грађана и јавности уопште. Дијагностиковање смрти је неопходно како би се потврдила права смрт и искључила привидна смрт, тј. да би се на тај начин избегло сахрањивање живих, односно привидно мртвих особа. Циљ овог стручно-методолошког упутства, заснованог на савременим медицинским подацима, јесте да помогне лекарима ХМП при правилном попуњавању лекарског извештаја о дијагностиковању смрти. Уколико је исход примењених мера реанимације негативан или када је особа пронађена мртва, лекар је дужан да дијагностикује смрт и

правилно попуни формулар о дијагностиковању смрти. Такође се препоручује ЕКГ преглед и да се региструје асистолија у најмање два одвода. Морална обавеза сваког лекара ХМП јесте да током поступка дијагностиковања и лечења примени сва расположива достигнућа и знања савремене медицине, стечена на основу екстензивних међународних студија, што је свакако била главна теоријска основа за стварање овог стручно-методолошког упутства. Они који се у своме раду понашају другачије чине то по својој савести, долазећи у ситуацију да због тога професионално – па и кривично – одговарају.

Кључне речи: стручно-методолошко упутство; извештај лекара; дијагностиковање смрти

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