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Essay

Do not resuscitate orders and anesthesia☆

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ABSTRACT

Given the poor results derived from cardio-pulmonary resuscitation (CPR), some decades ago, so-called do not resuscitate orders were established. These include unilateral medical decisions taken in extreme situations when the survival rate or recuperation of the patient is considered nil. Currently, and given the development of individual guaranties and their adoption in clinical practice, do not resuscitate orders are understood as agreements between physicians and patients (or their legal representatives) to not undertake CPR in the case of cardiac arrest. The definition of the clinical practice limits has slowly been accepted in view of the subsequent results in individuals' lives. However, the compatibility of these decisions – considered restrictive – on patients who will be treated under anesthesia is not yet clear. The purpose of this article is to present a conceptual framework for this dilemma and to provide answers to the formulation, consequences, and implications of do not resuscitate orders in the perianesthesia period.

Órdenes de no reanimación y anestesia

Palabras clave:
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RESUMEN

Conocidos los pobres desenlaces derivados de la reanimación cardio pulmonar se adoptaron, hace varias décadas, las llamadas órdenes de no reanimación, entendidas como las decisiones médicas unilaterales que se adoptaban en situaciones extremas cuando no se esperaba la recuperación o sobrevida de un enfermo. De manera más actual y dado el desarrollo de las garantías individuales y su adopción en la práctica clínica, se entiende por órdenes de no reanimación las decisiones concertadas entre los médicos y sus pacientes o

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ESSAY

representantes de no ser sometidos a una reanimación cardio cerebro pulmonar en el evento de sufrir un paro cardíaco. Poco a poco se ha ido aceptando la definición de límites en la actividad asistencial en consideración a sus resultados ulteriores en la vida de las personas, sin embargo, aún no es clara la compatibilidad de este tipo de decisiones – calificadas como restrictivas – en pacientes que van a ser llevados a procedimientos bajo anestesia. El objetivo de este artículo es establecer el marco conceptual de este dilema y ofrecer una respuesta sobre la formulación, consecuencias e implicaciones de una orden de no reanimación en el periodo peri anestésico.

Introduction

Through evidence based on clinical experience, the conclusion has been reached that cardio-pulmonary resuscitation (CPR) maneuvers in adults are successful in only a small minority of patients; failure of CPR and later patient death is the most frequent outcome with a survival rate after leaving the hospital oscillating between 6.5 and 24%, most with variable neurological damage.[1–6] The low success rate of CPR and its outcomes have been, for more than three decades, fundamental for the creation of do not resuscitate (DNR) orders.

Do not resuscitate orders

Due to the growing development – both theoretical and judicial – of individuals' autonomy, people have the right to understand their state of health or disease and to make decisions regarding the suggested medical treatment based on a proper description of their situation and alternatives. As such, medical decisions today should be the result of a dialog between the patient and the medical team, and in no case should they be understood as a unilateral prerogative of the health professional.[7–9]

In CPR, the approach should be the same and even more strict, since a high rate of associated sequelae with considerable severity. The patient has the right to know ahead of time if they are at risk for cardiac arrest. If so, together with their physician, they have the right to determine if they wish or not to be subjected to CPR.[10,11] There will be patients that do not wish to go through CPR and others who wish to hold on to minimal possibilities of survival, even with a poor quality of life, and this decision should be respected.

Why has CPR been routinely recommended in all cardiac arrests despite the known poor subsequent prognosis? It could be argued that it is the only alternative to death, but is the wellness of the patient and of society being considered? Or is the only consideration keeping the patient alive at any cost without taking their future quality of life into account? Here is where asking the patient – in advance, clearly, and respectfully – what they wish in the case of a cardiac arrest is fundamental. He or she will decide if they prefer to live no matter the result or to die without undergoing CPR.

This questioning has increased (starting in the last decade) the number of DNR in clinical practice, so much so that in some countries, like England, more than 80% of patients that die in hospital have a DNR. In this way, dying in hospital does not necessarily mean having to undergo CPR.[12,13]

The term "resuscitate" in do not resuscitate orders refers only to the non-administration of CPR should the patient suffer cardiac arrest and does not imply a restriction or with-drawal of other medical and nursing care that the patient needs and deserves. Making the care provided dependent on the existence or absence of a DNR is absolutely disproportionate.

When a DNR is implemented, it should be formalized by recording it appropriately in the medical history and communicating it to the entire medical and nursing team responsible for the patient's care. Also, the information should be transmitted in shift changes to ensure that CPR is not performed should cardiac arrest occur. DNRs are not final and the patient is free, at any time in their evolution, to change their mind about whether CPR is right for them.

Eventually, if a patient presents cardiac arrest and no advance directive or DNR exists, and there has not been any discussion regarding CPR between the patient and/or their family and the medical team (as is common in emergencies, for example), the medical decision should be based on initiating CPR in a rational way according to the international recommendations, always taking into account the benefits expected from the intervention versus the burdens and risks for the patient.

DNR and anesthesia

Up until the last decade in the UK and the USA, anesthesiologists required patients with an established DNR to suspend it temporarily while undergoing procedures involving anesthesia.[2] In other words, access to the operating room depended on the withdrawal of the DNR, albeit temporarily.[14–16]

They argued that their activities were very similar to those of CPR (tracheal intubation, mechanical ventilation, administration of vasopressors, etc.) and that if the patient suffered cardiac arrest, it was the consequence of an involuntary iatrogenic act, either surgical or anesthetic, that should be attended to with all the available therapeutic arsenal.[2] As such, a DNR would come in conflict with the anesthetic procedure itself.

ESSAY

How to act? Against the express will of the patient? Or accepting the risk of being questioned for having committed a possible euthanasia by interpreting the cardiac arrest as caused by the anesthesia or the procedure rather than the base disease? This leads to a challenging dilemma of clinical ethics.[14]

Even today, with no clear limits between anesthetic interventions and CPR, many anesthesiologists continue to refuse to accept DNRs in procedures under anesthesia.[2,14]

Current approach

The current approach recognizes that cardiac arrest is defined as the cessation of the spontaneous activity of the heart (asystole, ventricular fibrillation, or pulseless electrical activity). A DNR means that cardiac massage or defibrillation in the case of cardiac arrest is not performed. Thus all procedures of anesthesia (tracheal intubation, mechanical ventilation, and the use of inotropes or vasoconstrictors, among others) are totally compatible with the presence of a DNR, as long as the patient has spontaneous circulation. If the patient deteriorates despite the treatment to the point of entering cardiac arrest, the treatment should be interrupted from this point on the grounds that, without cardiac activity, the clinical management is no longer appropriate for the patient. In that order of ideas, it can be argued that the administration of compressions and heart defibrillation could be seen as a medical and ethical limit between CPR and normal anesthetic care.[15–17]

Currently, it is accepted that an adult patient is fully capable of rejecting any treatment, even when this rejection implies a possible increased risk of death. This does not mean that patients should be rejected by physicians nor that physicians can be investigated for any kind of wrongful conduct for omitting the treatment rejected by the patient.[8,17,18] Making accepting eventual CPR a condition of a certain surgical intervention is an unethical barrier to access and a way of denying the right of individuals to develop their own, personal ways to live their own lives and encroaches on the rights of patients.[17] It is illogical for an anesthesiologist to refuse to administer anesthesia to a patient that has previously signed or decided on a DNR, especially if we consider that many of these cases involve patients that suffer from a previous base pathology that they do not expect to recover from and that procedures in these patients aim, in one way or another, to improve their quality of life and offer them certain well-being. Obviously, the patient should be informed of the probability of survival under anesthesia, which is possibly greater than under other services, but it will depend on the general and specific condition of each patient.

The anesthesiologist may adduce objections of conscience, as long as they may refer the patient to another anesthesiologist that can administer the anesthesia. However, the temporary or definitive suspension of a DNR should not be a condition of their activity.

It is undeniable that DNRs, apart from being a medical dilemma, is an ethical and legal dilemma.

Ethical bases

In clinical practice, on occasion, with the false basis of the unlimited defense of life, we fall into therapeutic excesses that paradoxically only achieve a prolongation of the process of dying. The individual, as a complete individual, is forgotten and we focus only on keeping them alive at any cost, even while going against their wishes and expectations.

In the field of CPR, it is generally thought that good is being done, that one is "trying to save their life".[12] If the patient is not asked beforehand about their wishes, physicians will only continue to attempt more interventions with the idealism of "saving lives" while exposing patients to undesired procedures and often prolonging their suffering. It is here that the principle of beneficence and autonomy becomes important. No effect of a medical procedure, including CPR, is, in principle, beneficial for the patient unless he or she considers it to be so. Autonomy (patients' wishes) defines the benefit and origin of any intervention, since only the patient, invested with the right to decide, has the option to accept or reject the suggested treatment plan, though their personal judgment may be different than the physician's.

It is not ethically appropriate to condemn all patients with chronic, debilitating and progressive conditions with DNRs to not performing surgery or procedures requiring anesthesia on them. It must be taken into account that DNRs are the practical manifestation of personal autonomy in which what is acceptable, desirable, or tolerable for a certain individual is expressed in accordance with their beliefs, religion, and life plans. To respect a DNR in any space is to respect autonomy and to advance on the road of the humanization of medicine.[12]

Obviously, when cardiac arrest occurs is not the moment for analysis and reflection. This discussion must be held before the fact.[19] In hospitalization services, and even in emergency wards, an effort should be made to identify patients with a medical condition for which cardiac arrest is probable in order to inform them and establish in advance, with them or their family members, a management plan for this possibility that is in accordance with their wishes and preferences.[3] For many patients, quality of life and respect for autonomy may be more important than the quantity of life offered.

Legal bases

Based on the constitutional definition of the fundamental rights of persons, the law and jurisprudence has consistently moved forward recognizing competent, adult individuals as the only party responsible for decisions about their health. It is evident – for modern legal thinking – that the minimum that can be done for a person who will have to face their own condition is to make sure that they are aware of it and have accepted it beforehand. The imposition of a therapy or of a specific way of understanding life, like any other form of human subordination, is inacceptable given the predicable equality of all individuals and the right to self-determination that they hold.[20]

That a physician has greater preparation than the general population regarding illnesses or specific interventions is not ignored. However, this does not authorize them to "go behind the patient's back," and even less to act against their will. The way that has been prescribed to ensure greater balance between the knowledge and experience of the physician and the apparent ignorance of the patient is through information. Physicians are obliged, from the ethical, humane, and legal standpoints, to provide their patients with sufficient information so that they can effectively exercise their right to decide. A decision, in the terms described by the law, may only be mature, free, and conscious when the decision-maker is aware of the different variables implicit in each of the options offered to them.

The recognition of the individual as the determiner of their own existence in the legal world is more accepted every day, even if this vision differs from that of the majority. In this context, the imposition of living at any cost has given way to the recognition of life as a legal asset which – with clear limitations – the right holder may manage as they see fit.[20]

An individual may reject a certain intervention suggested by a physician, even if this rejection implies (as in the case of a Jehovah's Witness) an increase in the threat to their life. The same thing occurs with DNRs, but without implying that the patient must renounce any other form of medical care.[21]

The idea of the legal will of the patient is only acceptable when they decide that a certain therapeutic proposal in unacceptable. A true decision is one in which both *yes* and *no* are possible responses.

To end, we must conclude that DNRs do not exclude other forms of care or medical intervention nor should they be suspended or withdrawn as a condition for accessing certain services. Information is basic to the legitimate exercise of the right to decide. The quality and sufficiency of this exercise depends on the appropriateness of the response with the individual's life project. An individual who is insufficiently informed about the possible sequelae that could come after CPR would have the right to claim reparation of the unfair burden imposed on them without the physician's explanation of having performed CPR in an attempt to temporarily prolong life being admissible.

Beneficence, as a modern bioethical concept, implies permanently debating between what can be done and what should be done, ensuring that any medical determination coincides – whenever possible – with what, were it possible to communicate directly to the patient, would be what he or she would have aimed for or desired. Greater coincidence between what is offered and done and what is desired will be the greatest evidence of the correct understanding of medical ethics in the 21st century.

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