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Essay

Do not resuscitate orders and anesthesia☆

Fritz Eduardo Gempeler-Rueda[a,*], *Ana María De Brigard-Pérez*[b]

[a] *Department of Anesthesiology, Pontificia Universidad Javeriana, Bogotá, Colombia*
[b] *Especialización en Derecho Médico, Potificia Universidad Javeriana, Bogotá, Colombia*

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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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* *Corresponding author at*: Carrera 7 N° 40-62 4 Hospital Universitario de San Ignacio, Pontificia Universidad Javeriana, Bogotá D.C., Colombia.
E-mail address: gempeler@javeriana.edu.co (F.E. Gempeler-Rueda).

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 withdrawal 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.