REVIEW ARTICLE

Do-Not-Resuscitate Order: A Lacuna in Critical Care in Iran

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Despite a lot of efforts and investigations worldwide, DNR is still a controversial issue in many countries. In Iran although significant achievements are reached in different fields; end of life care is hardly considered as a scientific necessity. Development and implementation of clear policies for DNR orders is required to prevent futile prolongation of death, psychological stress to the patients and their family, high financial costs and waste of limited resources.
Keywords: decision making; ethics; resuscitation orders

Death is a natural and inevitable event at the end of life. Currently in 21st century, due to the advances and innovations in medicine, death has been considered to be a challenging issue with the introduction of new kind of patients with no function of brain and functional vital organs [1]. So, we need a precise definition of death to declare a person who has died physically and legally. In the United States, the Uniform Determination of Death Act (UDDA) stated that a person is dead when either the heart and lungs or the brain and brain stem permanently have no function [2]. However, the sufficient management of pain and distressing symptoms for patients, preventing prolongation of the process of dying, preparing the patients and their family, good communication between patients and physicians and spiritual and emotional sense of completion leads to a positive sense to patients about themselves. Close relationships between patients and their loved ones, are necessary for a good death [3]. Making decisions about cardiopulmonary resuscitation (CPR), artificial nutrition and hydration are medically and ethically challenging issues in terminally ill patients [4].

Some patients request do-not-resuscitate order from their physicians, but about 60-70% of critically ill patients are unable to speak and thus cannot make decisions on limiting the treatment [5]. Many factors should be considered to make decision for resuscitation benefits and side effects. A physician should consider many factors to make decision including financial cost to preserve the suboptimal quality of life [6]. The practicable definition of medical futile treatments is the interventions that do not help the physicians to achieve the intended goal. Based on this definition, some of the life-sustaining treatments will be withheld or withdrawn [7]. There are several ethical concerns about the medical futility. Firstly, how can it be explained? How to prevent being judged by medical staff for futile medical care? The other concern is that the health care with slight benefit may be eliminated accompanied with other cares. The most important concern is that some necessary treatments may be considered as futile care for cost reduction [1].

The concern is more prominent in elderly patients, disabled and patients with low socio- economic status [8]. The physician is the most qualified person to explain the benefits and burdens of interventions near the end of life. This is a difficult step when the patients or family cannot be convinced [7]. The use of advance directives or living wills, are recommended to prevent the ethical problems related to withholding and withdrawing the medical treatment and respect the patient autonomy and choice. However, there are limitations in advance directives that, may affect the health care providers to limit care; and lead to patient concerns about discontinuation of treatments. The other concern is in children and incompetent patients that who should decide especially when parents or executors insist on treatment despite the physician recommendation or in situation that they refuse the treatment [5].

Islamic view of death:

The different cultures and religions have various viewpoints about death that influence their attitudes in this issue. In Islamic viewpoint, the death is a gradual separation of the soul from the body by the angel of death and is a fact in Human Life. Believing in Allah's sagacity and ordained destiny in Islam puts an end to the fear of annihilation in human life. The humanity should rely on philosophers for intellectual understanding of religion. Some Muslim philosophers believe in the theory of immateriality (abstraction of the soul). The Muslim scientists make decision in specific human situations according to valid Islamic sources (Qur'an and Sunnah) which include many rules related to mortality for the community. In the ideology of Islam, life is a holy gift from God and the death undoubtedly justly occurs with the will of God. However, legally, there is more emphasis on the continuation of the advanced treatments, except when death has been considered inevitable by the physician [5-9].

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Evolution of cardio-pulmonary resuscitation

Cardiopulmonary resuscitation consists of a series of procedures to preserve oxygenation and perfusion in patients with cardiac arrest that was introduced in the 1960s in western medicine. About 6.5-15% of patients with in-hospital cardiac arrest are survived to discharge from hospital and this rate is estimated to be 15-20% at best. Consequently, the overall success rate is low and it can be concluded that these procedures would not be helpful for all patients and only prolong the process of dying by hours or days in many patients [10].

Medical futility

Medical futility is a medical judgment by physicians in order to withhold/withdraw the care that is considered pointless. The medical futility implies two main concepts including low chance of survival and low quality of life that are determined by the underlying disease and the expected health condition after resuscitation. Indeed, withholding or withdrawal of futile medical care doesn't mean euthanasia, but it could be considered as a passive euthanasia [11]. Actually, the aim of the medical futility concept is that the resources could be better used elsewhere. So, in this situation, only life-sustaining procedures including CPR, life- saving surgery, ventilators, balloon pumps, pacemakers, dialysis, vasopressors, blood, antibiotics and insulin infusion are withheld or withdrawn while, parenteral and enteral fluids or nutrition will be typically continued [12-13].

According to the Ethical and Moral Guidelines approved by the American College of Chest Physicians/SCCM Consensus Panel, decision regarding preservation or withdrawal of intensive care should not be made according to the patient's productivity or economic value [14]. Considering the statement of the Indian Society of Critical Care Medicine's Ethics Committee regarding futile treatment in Intensive Care Unit, the physician is committed to inform the capable patient/family about the poor prognosis of disease honestly and clearly and explain that further aggressive treatment is not beneficial, but all supportive cares should be continued.

There are three approaches for limiting life-supporting interventions including, withdrawing and withholding life-support and do-not-resuscitate status that should be identified. The physician should discuss the consequences of forgoing the aggressive interventions with the capable patient/family and decision-making process should be participatory because the capable patient has autonomy and could be involved in making an informed choice of therapy. It is necessary to document decision-making process and final decision in order to avoid the future misunderstanding. The attending physician/intensivist of the patient is the main person who makes decision and the other members of care giver team should cooperate with the physician's order. If the capable patient/family tends to withdraw the life support interventions and the physician believes that the aggressive treatments are not beneficial, in this situation, the treating team is ethically obliged to withdraw with consideration of the existing laws. Also, the physician is responsible to consider the emotional needs of family and provide the palliative care to the patient compassionately and effectively [15].

Advance directives (ADs) and Do Not Attempt Resuscitation (DNAR)

The patient's right to make a decision about one's own body is introduced as the patient's autonomy and is an accepted legal principle in most countries. The autonomy is practiced through the patient's informed consent which provides the possibility of refusal of life-sustaining treatment for the competent individual. Such documents signed by the patients are called advance directives. Do Not Resuscitation (DNR) is a documented and accepted advance directive in most developed countries [11]. The existence of such directives has led to fundamental changes in the health care.

The use of CPR for all cases of cardio-pulmonary arrest, as is usual in our country has led to many problems. In fact, the CPR is not beneficial for some patients, as if just prolongs their suboptimal life and delays the death process. However, in many medical centers, medical staffs believed that CPR is futile. In such a circumstances, special signs including (no code) on the patient's record or in staff's dialogues, are usually applied [16]. DNR more formally recorded in the patient's charts in the beginning of 1970S and at first, the formal record of DNR was considered in 1974 by the American Medical Association [17].

The necessity of guidelines for DNR orders

In the late 1960s, some publications noted that the frequent CPRs resulted in intense suffering in critically ill patients and concluded that the CPR was not a beneficial approach for all patients. However, dealing with these patients and making decision to continue the treatments were very difficult for medical staffs due to the existence of the scientific, religious, ethical and legal challenges [16]. Despite different studies conducted worldwide, it is still a challenging issue among doctors and medical staffs. There is no specified rule for DNR orders in different cases, so according to the importance of the patient's life in Islamic culture; it is needed to develop guidelines for DNR orders with the aim of preventing the intervention of unscientific, non-professional and personal factors [16].

The Islamic jurisprudence perspective

Unlike the euthanasia, the DNR order seems to be considered more as a medical issue and responsibility of the physicians in jurisprudence and Shia fatwa. The lack of attempt to preserve the patient's life in order to abstain the patient from pain and suffering (even with the patient's consent) or to avoid the use of medical resources and heavy costs imposed on society and families are not accepted in Islamic principles [18-19]. According to the supreme leader of Iran (Ayatollah Khamenei)'s fatwa, all types of euthanasia including: I- active euthanasia (death due to medication prescribed by physician), II- passive euthanasia (Refusal of continuing treatment and keeping a dying patient alive), and III - indirect euthanasia (putting the medications available in order to attempt to end the life by patients themselves) implies that keeping a dying patient alive and delaying death is not necessary so, type II is permitted but every action which leads to death, is not permissible [20].

Ethics and advanced directives

The ethical principles such as individual autonomy, beneficence, non-maleficence, justice and fidelity should be considered in decision making [7]. Despite extensive studies worldwide, there is still complexity and confusion in the meaning of ADs. The moral motivations behind ADs and informed consent are definitely for respecting patient's wishes and patient's family role in refusal of treatment and permission to perform interventions [21].

The attitude of various countries about DNR

The performance of medical staffs on issues related to the end of life varies in different countries. The physicians, nurses and other medical care staffs have prominent role in the approach to the end of life care. Social and cultural factors are affected by ethical policies in different countries and determine the health care personnel approach [16]. Several investigations in the assessment of the ethics policies associated with the end of life care were conducted and in the assessment of 19 studies (between 1981 and 2006) the investigators reported that there was more focus on procedural and technical aspects instead of on an attention to special ethical considerations of DNR [22].

The factors affecting decision making about DNR orders by medical staffs were assessed in another investigation. It was concluded that the medicine specialty, years of training and experience had important role in strength of DNR order recommendations [23]. Granja et al described that the level of medical health training and degree of involvement with the patient's daily care were positively associated to the frequency of DNR decisions [24]. The differences between physicians and nurses viewpoints were pointed by Eliasson et al. while DNR orders were more recommended by physicians over a similar time [25].

Attitudes and policies about DNR in various countries were investigated in different articles. Although, frequent reviews were conducted on this issue, there is still a lack of consensus among different countries. In 1970s, Critical Care Committee at the Massachusetts General Hospital for the first time developed guidelines for DNR in order to clarify the nurse's response to the patient's request. Currently, all hospitals need to develop the written policy to obtain a license from the Joint Commission on Accreditation of Healthcare Organizations in USA [16] and most of medical and nursing communities and hospitals have guidelines. (American Society of Anesthesiologist (ASA), American College of Surgeons (ACS), and Association of Operating Room Nurses (AORN) [26-28].

In Brazil, the oral orders are preferred because sharing decision making and consideration of the cultural and religious situations are important factors affecting decision [29-30]. Advance refusal of treatment is the policy in UK to achieve the better end-of-life care outcomes and has legal force. The DNR orders should be documented by senior physicians and clearly discussed with patient's parents and relatives in Ireland [31]. In France, the main decisions are made in academic sessions and the patient's family or relatives or any decision maker have only consultative role [32]. Euthanasia and self-written advance directives are legal requirements in Netherland [33]. The Societá Italiana di Anestesia Analgesia Rianimazione e Terapia intensive (SIAART, not law) are routinely applied as guidelines in Italy [34].

There are more strict policies in Israel due to strong ethical and religious belief in the Jewish community. They believe that death event is not a potentially reversible medical emergency and it is a peaceful, uninterrupted transition for human beings [35]. It could be said that the least strict policy in DNR orders are organized in Japan so that the physicians could give the DNR orders even without consulting the family, when they recognize that the CPR is futile [36].

There are no special guidelines in Asian countries especially in the Muslim countries. Just Saudi Arabia has organized and completed a guideline based on the Religious mullah's fatwa and the implementation of this guideline is legally required. The first guideline for DNR orders was implemented in the King Faisal Specialist Hospital [37]. After the consensus of three physicians on uselessness of resuscitation and low quality of patient's life the patient and family are informed and the treatments will be stopped [38].

In 2013, Shiraz was elected as the place for 4th national congress on Medicine and Judiciary where physicians, judges, heads of medical councils and legal medicine organizations, heads of justice departments of different provinces of Iran join biannually to discuss on important aspects on medicine ethics and legal issues. During this event the authors planned for a task force and a panel about DNR orders in Iran. After very productive discussions the final statement of the congress declared the urgent need to clarify and provide legislative measure to limit unnecessary and persecutor cares at the end of life [39]. The authors also organized a multidisciplinary team with members from physicians, nurses, jurists and ethicists and recommended a guideline for DNR orders to Islamic Republic of Iran Judiciary and Ministry of Health for approval.

Conclusion

Although various efforts and investigations are conducted worldwide in recent years; DNR is still a controversial problem in many countries. In our country despite significant achievements in different fields; end of life care is considered less as a scientific necessity. Development and implementation of clear policies for DNR orders is required to prevent prolonged painful death, psychological pressure on patient's family, high financial costs and waste of limited resources.

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