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Do-Not-Resuscitate (DNR)

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Abstract

Do-Not-Resuscitate (DNR) is well conceptualized, understood and implemented in developed countries in comparison to developing countries. DNR, DNAR (Do-Not-Attempt-Resuscitation), and AND (Allow-Natural-Death) are the same instructions or orders with an equal meaning. DNR is a therapeutic decision made before incident of cardiac or respiratory (cardiopulmonary) arrest with the consent of patient, or proxy consent of next of kin or authorized person if patient is not competent and sound. In this case, healthcare professionals provide no requisite CPR (Cardiopulmonary Resuscitation) without stopping any degree of normal care and therapy given to the patient.

It is essential to consider who should discuss the DNR status and with whom, what and when it should be discussed, how should discussion be done and documented and who shall sign the DNR consent. Documentation in the patient's medical record of a decision with regard to DNR and not to perform CPR must be incorporated both in clinician's order and in the progress notes of the patient. The Nepal Medical Council's guidelines for DNR are very clear and well spelt out but the implementation process is not documented. Healthcare decision must be taken on ethical ground besides clinical and technical ground. Healthcare professionals must be trained to become ethically competent. To effectively use and prevent misuse of DNR order, health professional must be educated about DNR.

Key words: Allow-Natural-Death (AND); Cardiopulmonary Resuscitation (CPR); Do-Not-Attempt-Resuscitation (DNAR); Do-Not-Resuscitate (DNR); Healthcare Professionals

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INTRODUCTION

All of us aspire a living san suffering. Everyone lives to lead possible quality of life and it is natural right of an individual. But when death is impending due to terminal diseases and someone is lying in bed with machines sustaining vital organ functions; there appears the dilemma of choice. With healthcare professionals, most of the times cardiopulmonary resuscitation (CPR) may remain to be last choice to save the life of a terminally ill patient; other medical modalities and medicine can be perceived as worthless by healthcare professionals and patient's family[1].

To prolong someone's life anyhow and at any cost without quality of life with possible harms and burdens of treatment is not appropriate and worthy. It is better to weigh risks and benefits of treatment and balance between risks and benefits and then decide to use any therapy including CPR.

Practically in every sort of healthcare, it can sometimes be considered or is anticipated that patient is likely to have a poor outcome and may not survive with CPR for cardiac or respiratory (cardiorespiratory) arrest, or survive with poor function and quality of life; a Do-Not-Resuscitate (DNR) order can then be made by the responsible healthcare professional/s.

CPR was started in 1960 and in 1974, American Heart Association (AHA) approved it for clinical use. As a policy, first DNR order was published in 1976.

Do-Not-Resuscitate (DNR)

A DNR order is the order for the healthcare professionals not to perform CPR on a patient with cardiac arrest or pulmonary arrest (cardio-respiratory arrest)[3-8, 9].

DNR orders are unique in that neither basic (heart compressions and ventilation) nor advanced

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(defibrillator or medicine) resuscitation is attempted[3,8]. CPR is the only medical intervention that requires an order not to perform it. CPR is the process of restoring the cardiac or pulmonary (cardiopulmonary) function back to normal, fully or partially, after a cardiac or respiratory (cardiopulmonary) arrest[8, 9].

DNR is a therapeutic decision made prior to occurrence of cardiac or respiratory (cardiopulmonary) arrest, with the consent of patient, or if it is not possible, proxy consent of next of kin (family members or relative) or authorized person where healthcare professionals provide no requisite CPR without stopping any degree of normal care and therapy given to the patient[6-9, 10].

DNR is clearly conceptualized and understood in developed countries compared to developing world[9,11]. DNR order does not involve stopping routine care like oxygen inhalation, intravenous or oral fluid therapy or oral, parenteral or intravenous nutrition or withdrawing life support system if patient is on ventilator or inotropes[9].

Terminology

CPR- Cardio-Pulmonary-Resuscitation

CPR is a set of emergency procedures performed on person during cardiac and/or respiratory arrest (when a patient's heart stops beating effectively and/or breathing stops) attempted to restore functions of the heart and lungs through the use of chest compressions, artificial respiration, medications and electrical shock/s[6].

DNR, DNAR, and AND

DNR, DNAR, and AND are the same commands, instructions or orders with an equal meaning, used by healthcare professionals when patients should not be resuscitated if he/she develops cardiopulmonary arrest[6].

DNR (Do-Not-Resuscitate)

It is a medical instruction, ordered by a clinician (physician or surgeons) or written in an advance directive (AD) by the patients to direct healthcare providers not to perform CPR if he/she stops breathing or his/her heart no longer beats[1].

DNAR (Do-Not-Attempt-Resuscitation)

The language of DNR has been modified to "Do Not Attempt Resuscitation" (DNAR) or "Allow Natural Death" (AND). Both of these changes clarify confusion and Allow-Natural-Death (AND) is more gentle way of communicating do not resuscitate. American Heart Association (AHA) adopted DNAR to replace DNR in their CPR and Emergency Cardiovascular Care guidelines[12, 13].

AND (Allow-Natural-Death)

If a healthcare professional notifies the family that therapeutic modalities no longer will be administer to the patient in case of cardiopulmonary arrest; the family member might later regret why they agreed the DNR and reflect that something else could have been done. So, "Allow Natural Death" would likely be more customary and acceptable to the family rather than DNR[1].

LSTM (Life-sustaining Treatment Measures)

Life-sustaining Treatment Measures are methods or modalities that sustain life like ventilation, central line placement, renal replacement[9].

DNR status

It is imperative to consider who should discuss the DNR status, with whom DNR status be discussed, what should be discussed, when it should be discussed, how should discussion be done and documented and who shall sign the DNR consent. It's crucial for the primary clinician (physician or surgeon) to do initial discussion. Later on, healthcare team including nurses reinforces it. It should be discussed with patient if s/he is competent and sound to do so; else the discussion should be done with next to kin of the patient or any authorized person. It is better to discuss prior to admission in palliative care, during care in emergency or intensive care if prognosis is expected to be poor. DNR discussion must broadly focus on understanding patient about his/her illness, prognosis, goal of care, awareness about the benefits and burdens of CPR and process of DNR. If patient is not competent and sound, then DNR status must be discussed with next of kin or authorized person. DNR shall be signed by a competent terminally ill patient or next to kin or authorized person if patient is no longer capable of taking decision[9-14, 15].

Decision-making in DNR

Decision-making in implementing DNR is a complicated process with moral and legal concerns[5].

Peterson et al mentioned that mostly the decisions for DNR orders are taken quite late. Sometimes decision taken just on the day of patient's death or just before patient's death. Many clinicians think DNR decision must be taken early. Most of the physician are not acquainted when to issue and implement DNR orders and with whom to discuss and negotiate. There is also difference of opinion among healthcare professionals[3, 5].

The DNR decision-making process varies in different countries and among countries[1, 16].The difference of opinion in belief, acceptance, acknowledgment and

approval with regards to performance, morality and legality have been observed in different societies, cultures, ethnicities and religions[5-17, 18].

To effectively use and prevent misuse of DNR orders, health professional must be educated about DNR[19].

DNR: Ethical competence

Healthcare decision must be made on clinical, technical and ethical ground; most of the times ethical aspects are ignored or overlooked or unrecognized. DNR decisions are frequently made by primary treating clinician (physician or surgeon) and also nurses. Sometimes they face ethical dilemma because of ignorance or not aware of. So, they must be ethically competent to take decision. The ethical competence is a capacity of healthcare professional to handle and resolve an ethical dilemma in adequate and ethically responsible manner. Healthcare professionals must be trained to become ethically competent; this is one of the core competencies of healthcare professionals[3, 6].

Documentation of DNR orders

Documentation in the patient's medical record of a decision regarding DNR and not to perform CPR is critical; the orders must be incorporated both in clinician's order and patients' progress notes. It's better to develop/use the standardized DNR Order Form for documentation. It is also worth to develop/use checklist for discussion on DNR with patient or next to kin or authorized person. What is to be done or not done if DNR orders are activated must clearly be included/mentioned in DNR Order Form. Hierarchy for decision-making in DNR and consent for DNR must be followed as per norms or rules of country[9, 20].

DNR: Nepal perspective

Nepal Medical Council has revised its "Code of Ethics & Professional Conduct" guidelines in 2017. DNR is described under section "Duties of medical practitioner towards patient" in "Care of the terminally ill patients".

"In the terminally ill patient 'Do Not Resuscitate' or 'DNR' does not mean 'Do Not Treat'. It actually signifies refusal of administration of CPR in case of sudden cardiac arrest. Hence all the required treatments should be continued as usual except the CPR"[21].

The guidelines on DNR are very well-defined and rationalized. It is further explained in details as:

"If a patient is terminally ill, medical practitioners need to consider whether treatments will offer any benefit to the patient at all or if in the patient's situation they will only cause harm. If a treatment will not work, if it will only prolong death, if it will increase suffering and make death more painful, the treatment is futile and should not be offered. This includes CPR and life support. To offer treatments that are not aimed at alleviating pain and discomfort; in other words, treatments that are not palliative in these situations would fall outside the medical standard of care"[21].

"If it becomes clear when caring for a terminally ill patient that the treatment isn't working and that any treatment that is not palliative in nature is futile, e.g., terminally ill patient admitted in ICU with ventilator support, medical practitioners should discuss the situation empathically with the patient's family as soon as possible regarding discontinuation of life supportive measures keeping in mind the best interest of the patient"[21].

The guidelines in principle are very clear, but the implementation process is not documented.

DNR orders are being practiced in various hospitals mostly in intensive care but variation in implementation & documentation has been observed. This is crude statement. Study related to implementation and documentation of DNR orders is required as to know about the situation in Nepal.

CONCLUSION

In making healthcare decision, ethical aspect must not be ignored. DNR, DNAR, and AND are the identical orders with an equal meaning used by healthcare professionals. DNR orders are unique in that neither basic (heart compressions and ventilation) nor advanced (defibrillator or medicine) resuscitation is attempted. DNR order does not mean discontinuing routine care like oxygen inhalation, intravenous or oral fluid therapy or oral, parenteral or intravenous nutrition or withdrawing life support system if patient is on ventilator or inotropes.

It is essential to follow the guidelines for DNR orders and understand the role of clinician, nurse, patient and patient's family and authority and consider who should discuss the DNR status, with whom DNR status be discussed, what should be discussed, when should be discussed, how should discussion be done and documented and who shall sign the DNR consent. Healthcare professionals must be trained in implementation of DNR orders.

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