Terminally ill patients’ do not resuscitate orders from the doctors’ perspective

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Abstract
The do-not-resuscitate order is the explicit statement by patients with advanced disease in progression refusing cardiopulmonary resuscitation. This study aimed to describe the attitude of physicians in relation to this order and the need for its regulation. A questionnaire was applied to 80 physicians in the medical bureau of the Regional Council of Medicine of Joaçaba/SC, Brazil. It was found that 90% of the respondents knew the meaning of do-not-resuscitate, 86.2% agreed to respect it, 91.2% considered it important to be registered in medical records and 92.5% understood as opportune the issuance of a regulation in this regard. It was concluded that most doctors knew about the do-not-resuscitate order, agreed to respect it, valued its registration in medical records and wanted its regulation by the relevant bodies.

Keywords: Terminally ill. Bioethics. Resuscitation orders. Heart massage. Respiration, artificial. Medical futility.

Resumo
Ordem de não reanimar pacientes em fase terminal sob a perspectiva de médicos
Ordem de não reanimar consiste na manifestação expressa da recusa de reanimação cardiopulmonar por paciente com doença avançada em progressão. Objetivou-se descrever a atitude dos médicos em relação à ordem de não reanimar e à necessidade de sua normatização. Foi aplicado questionário a 80 médicos inscritos na delegacia do Conselho Regional de Medicina de Joaçaba/SC, Brasil. Verificou-se que 90% dos participantes conheciam o significado dessa ordem, 86,2% concordavam em acatá-la, 91,2% consideravam importante seu registro em prontuário e 92,5% consideravam oportuna a emissão de normatização a respeito. Concluiu-se que a maioria dos médicos tinha conhecimento sobre Ordem de Não Reanidar, concordava em respeitá-la, valorizava seu registro em prontuário e desejava a normatização por parte dos órgãos competentes.


Resumen
La orden de no reanimar a los pacientes en fase terminal bajo la perspectiva de los médicos
La orden de no reanimar es la manifestación expresa de rechazo de la reanimación cardiopulmonar por parte de pacientes portadores de una enfermedad avanzada en progresión. Este estudio tuvo como objetivo describir la actitud de los médicos con respecto a esta orden y la necesidad de su regulación. Se aplicó un cuestionario a 80 médicos inscriptos en el distrito del Consejo Regional de Medicina de Joaçaba/SC, Brasil. Se encontró que el 90% de los encuestados conocían el significado de esta orden, el 86,2% estaban de acuerdo en cumplirla, el 91,2% consideraban importante el registro en el historial médico y el 92,5% juzgaban oportuna la existencia de una regulación al respecto. Se concluyó que la mayoría de los médicos tenía conocimiento de la orden de no reanimar, estaba de acuerdo en respetarla, valoraba su registro en el historial médico y deseaba su regulación por parte de las instituciones competentes.


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Declaram não haver conflito de interesses.
Do not resuscitate Order (DNR) consists in the deliberation of do not trying cardiopulmonary resuscitation in terminally ill patients, with irreversible loss of conscience or non-treatable cardiac arrest. DNR has been part of the Code of Ethics of the American Medical Association (AMA) since 1992. In Europe, between 50% and 60% of patients who had sudden death in hospitals of countries such as Holland, Switzerland, Denmark and Sweden have declared individual decision of non resuscitation. However, the global scenario related to professionals’ conduct is not uniform, due to the differentiated cultural factor and to the lack of consensus and global guidelines.

In the Brazilian scenario, the ethical discussion has arisen mainly in the past two decades and it was recently fostered by actions taken by the Federal Medical Board (CFM) which stimulate debates in respect of terminality. Those initiatives are evidenced mainly by the publicizing of resolutions CFM 1.805/2006 and 1.995/2012, which approach, respectively, terminal patients' therapeutic limitation and advance directives (living will). In public health, the rejection of treatment is an integrated part of the Letter of the Health Users Rights, issued by the Health Ministry. DNR is presented as a complement to the living will for particular situation in which the patient opts for the non-resuscitation in case of cardiorespiratory arrest.

Specific ethical standards in force in Brazil on DNR were not found, but the procedure is evident in the hospitals, as attest the registers in medical records. In that context, the aim of this research was to learn about the physicians’ perspective on DNR and the need for ethical regulation.

Method

It is a descriptive and cross-sectional study performed by means of a questionnaire applied to physicians from Joaçaba’s Regional Council of Medicine medical bureau, in the state of Santa Catarina, who agreed to participate and signed the free and clarified consent term. The physicians were personally contacted from September to November 2014 and when they were unavailable to answer, the survey instrument was delegated to the secretaries, accompanied by the necessary clarifications. The individual questionnaires comprise 14 multiple choice questions, of which three of socio-demographic interest (age, being a specialist or not, workplace) and eleven with particular approach on DNR. The statistical analysis was realized by means of BioEstat 5.0 and GraphPADPrism. The statistical tests used were G and Fisher’s Test, with significance level of 95% (p < 0.05).

Outcome

Of a universe of 160 physicians registered in the Regional Council of Medicine medical bureau, 105 were invited (66%) and 80 agreed to participate in the research (50% of the total registered and 76% of the invited physicians), constituting the sample studied.

The average age was 39.4 years, with standard deviation of ± 11.9; however, 25 (31%) did not inform the age. In regard to the age ranges of those who informed, 22 (28%) were between 25 and 35 years; 22 (28%) between 36 and 45 years; 6 (9%) between 46 and 55 years; and 5 (6%) with age above 55 years. Regarding the specialty, 68 physicians (85%) declared themselves as holders of a certification of specialist and 12 (15%), declared they did not hold a certification of specialist.

Concerning the place of the professional practice, question in which the participants may opt for more than an answer, 49 (61%) informed working in a private clinic, 37 (46%) in hospitals – both public health system and private –, 11 (14%) in a primary care unit (UBS) and 2 (3%) in mobile urgency care service (Samu).

The term “Do Not Resuscitate Order” was known by 72 participants (90%), without significant differences between age ranges and between condition of being a specialist or not (p < 0.05). It is emphasized that only 10% did not know about the procedure.

Questioned about the existence of ethical directives about DNR in Brazil, 59 participants (74%) answered positively. In relation to the need of preparation of guidelines about DNR in Brazil, almost the totality agreed – 74 (92%) –, and only 6 (8%) disagreed. The fact of being a specialist or not, age and workplace did not influence the result (p<0.05).

About the possibility of involvement in lawsuit due to DNR prescription, 42 (53%) disagreed totally, 16 (20%) disagreed a little, 14 (18%) agreed totally and 8 (10%) agreed a little. If the patient had manifested previously the desire of not being resuscitated, 69 participants (86%) would prescribe or execute their determination and 14% would not,
without significant statistical variation due to age ranges and to being a specialist or not \( (p < 0.05) \).

The previous personal participation in assistance to cardiorespiratory arrest patients was confirmed by 71 participants \( (88.7\%) \) and disapproved by 9 \( (11.3\%) \). When asked whether patient’s age would influence decision making in resuscitating or not, 38 \( (48\%) \) answered affirmatively and 42 \( (52\%) \) negatively, and it was verified that the youngest physicians would take into consideration the age of the patient at the time of decision taking \( (p < 0.05) \).

The register of DNR in the patient’s medical records was considered very important by 51 participants \( (63\%) \), important for 22 \( (28\%) \), of little importance for 2 \( (3\%) \), without importance for 4 \( (5\%) \), and 1 \( (1\%) \) did not answer.

Opting for DNR was considered joint prerogative of physicians and relatives by 45 participants \( (55\%) \); of physicians, nurses and relatives by 22 \( (28\%) \); only of the physician by 8 \( (10\%) \); only of the relatives by 3 \( (4\%) \); and 2 \( (3\%) \) did not answer. The options “physician and nurse” or “only nurses” were not chosen.

The physicians were also questioned about non-resuscitation of a relative in a terminal situation, in case there were no available therapeutic conditions for the cure and this was his will. 74 participants declared to be favorable \( (93\%) \), and 6 \( (7\%) \) to be unfavorable.

The participants were questioned if they, in case they were in a terminal stage of an irreversible disease, would desire that their previous manifestation be taken into consideration in case of cardiorespiratory arrest. From the total of the interviewees, 75 \( (94\%) \) answered affirmatively and 5 \( (6\%) \) negatively. Of the physicians who would desire to have their DNR respected, 67 \( (89\%) \) would respect the DNR of their patients and 8 \( (11\%) \) would not. Of the 5 physicians who would not desire their DNR to be respected, 2 \( (40\%) \) would respect the DNR of their patients and 3 \( (60\%) \) would not \( (p < 0.05) \).

**Discussion**

The term “Do Not Resuscitate Order” was known by 90% of the surveyed physicians. The fact some of them not knowing about it seemed exceptional, considering it is a procedure to be always considered in case of patient’s cardiorespiratory arrest when the procedure is configured as futile.

International studies which have investigated physicians’ knowledge about DNR are rare. However, a study performed in the United States presented an even greater unfamiliarity, considering that among a hundred resident physicians of a hospital, a third part had never heard about DNR \(^6\).

The minority of the surveyed physicians \( (26\%) \) answered correctly that there is no regulation on DNR in Brazil. Our country is still in the legislative shade regarding some aspects of terminality. However, advance in the ethical scope is already noticeable, mainly with to issue of Resolution CFM 1.805/2006 \(^6\) and of article 41 of the Código de Ética Médica (Medical Ethical Code) \(^11\) which admit therapeutic limitation in cases correctly indicated, after obtaining the consent.

As observed in the results, few physicians still had not participated in cardiorespiratory resuscitation maneuvers. A study performed in the inland of the State of São Paulo verified that only 65% of the physicians had experience with terminal patients \(^12\). However, the opportunity to participate of patients’ resuscitation may occur at hospital emergencies in general, justifying that most of them had had that experience at some point.

The majority of the surveyed physicians \( (85\%) \) answered that they would execute or prescribe DNR authorized by the patient. A study in a hospital in Israel has shown that 67% of the physicians would accept the DNR of the patients, but among the relatives, only 33% would be favorable, evidencing the difference of conception between physicians and the family \(^13\). Another study in units for burned patients, with American and European intensivist, has detected an acceptance rate a little lower among professionals: 54% \(^14\). In the assistance to patients who opted for the DNR and that were previously subjected to extra-hospital resuscitation maneuvers, there were procedures limitation such as blood transfusion, cardiac catheterization and **by-pass** implantation, evidencing the respect to the directives, when existent \(^15\).

This study verified that the physicians were divided in relation to the patient’s age factor for decision-making regarding DNR, which was considered relevant for the younger physicians. An international study has shown that, although the increase of age makes the cardiopulmonary resuscitation results worse, this factor did not influence the assistant physician in the decision \(^16\). On the other hand, when analyzing the electronic system records of two hospitals in Nashville, it was verified that older patients, and with more severe disease presented in
greater numbers of records about procedures that they desired to receive or not in the terminal phase of life making the procedure easier. However, when some requests made to the ethics committee of Massachusetts General Hospital, in Boston, were reviewed, it was verified that restriction of resuscitation maneuvers were not more frequent in older patients.

As the situation implies in a decision dependent on several factors, in which age evidently reduces the rate of success of cardiorespiratory resuscitation, some professionals take it into consideration. Considering the fact that the youngest professionals interviewed in this research consider the relevance of the age of the patients for a decision, whose cause was not questioned, allows for reflections. On the one hand, it is possible that older physicians, due to their education or to their proximity to the end of life, tend to accept the execution of procedures to extend life. On the other hand, it may be presumed younger physicians due to ethical directives and scientific information received more recently, adopt a less receptive position.

In respect to the importance of the registering of the DNR in medical records, the majority has considered “very important” or “important”, regardless of age ranges or workplace (p > 0.05). In that aspect, recent guidance has arisen from Resolution CFM 1.995/2012, which has considered valid the register, in the medical records, of the wills of the patient concerning the cares he wants to receive or not when unable to communicate. The lack of DNR regulation in Brazil may cause, among physicians, concern both in discussing the issue with the patients and in registering such procedure in the medical records.

In this sense, the research identified the existence of divergence between the register in medical records and the practice of not resuscitating a child patient in a terminal stage, as there was no register of that directive, 40 in a total of 176 cardiorespiratory arrests did not receive cardiopulmonary resuscitation. The physicians, participants in this survey, regarded important the register of non-resuscitation in the medical records, being one of the possible steps to demystify the issue. However, it is rare in the medical records the register of the communication to relatives about terminality of life, and such aspect needs to be improved by means of particular directives and directed medical education.

In those places where DNR has already been established, the acceptance and the engagement of the patients are more frequent. In Indiana University Hospital, in the United States, it was confirmed that 64.2% of the deaths in surgical hospitalization and 77.3% of the deaths in clinical hospitalization presented DNR in medical records. Another survey also in the United States verified that the fact of having opted for DNR gave the oncological non-responsive patients a better quality of life in the last week of existence. DNR is a tool of fundamental importance for care in terminality, but should receive a delicate approach and in the due moment during the patient’s hospitalization, preventing unnecessary stress in situations at low risk.

When asked about who should opt for do not resuscitate order, most participants indicated the physicians together with relatives. In a previous study on preparation of the living will, there was a preference, both among patients or among their companions, for the participation of the physician together with the family. That agreement is repeated now, as the majority believes that physician and family should participate in the preparation of the DNR. Despite the frequency, it is observed that DNR texts continue being strictly technical and of difficult understanding for the lay audience, besides having insufficient discussions among physicians and patients/family, delaying the treatment or not dealing with regular and uncomfortable situations which occur in the terminality of life, such as nausea, ache, dehydration, delirium, among others. In this study it was observed that physicians are interested in discussing DNR, although until this moment there are no specific ethical directives in Brazil, nor even about its form of preparation.

It was verified that, in this paper, physicians prefer to discuss the DNR with relatives. In that aspect, another study verified that most intensivist care physicians of Intensive Therapy Units (ITU) for burn patients would have preferred to take that decision alone, involving the family or the patient in smaller proportion; however, even then, the majority (81%) would respect the family’s opinion, corroborating the results of this research. In the preparation of the do not resuscitate order in ITU for burn patients, the medical team was involved in 88% of the cases registered, and the nursing team in 46%, but the patients’ families should always be involved, as per the opinion of 66% of the physicians. The tendency to seek engagement of physicians and relatives for the decision was also evident in this study, followed by the inclusion of nursing professionals, a second-place alternative.

The majority of the interviewees (56.25%) reported that the decisions regarding DNR should be
taken by the physician jointly with the family. Another study\(^2\) confirmed that the patients’ wishes about DNR were usually met, and, when they were not evident, it was the physician’s responsibility to take the decision. On the other hand, the good communication between relatives and multidisciplinary team members can be established with training and it constitutes a determining factor for the families’ satisfaction with patients in ITU and for the compliance with of the patient’s will\(^2\).

Almost the totality of the surveyed physicians (93%) would accept the DNR of their relatives, percentage higher than the 62%\(^1\) verified among the resident physicians of PUC’s Medical College of Sorocaba. It is estimated that the results’ variation results from the different times in which the survey was done (2009 and 2014), reflecting the chronological change of perception.

Few physicians would not desire to have their DNR respected in case of cardiorespiratory arrest when in a terminal stage of an illness. No explanation was found for the fact, but it is estimated that eventually they prefer to leave that decision to the workmates, due to the diversity of factors which influence the choice. It was observed that almost all physicians did not have a wish to be resuscitated in the situations in which there is indication (94%). But, in a study performed with residents, that rate fell to 70%\(^2\). In the past an American physician with a metastatic cancer was subjected to several maneuvers of resuscitation against his/her will and, after much suffering, died brainless, which has given rise to lots of questions\(^2\).

The adoption of non-resuscitation in cases which present clinical indication and patient’s consent constitutes the accomplishment of the bioethics principle of nonmaleficence, considering that the measures to be taken would cause more damages than benefits and would even configure dysthanasia practice. In that context, it is presumed that the current knowledge about the adverse cardiorespiratory resuscitation’s consequences without a clinic indication has influenced the high rejection of the procedures among the researched participants.

### Final Considerations

The majority of the participating physicians knew about the do not resuscitate order and agreed to prescribe it, believed this to be the correct moment for regulation and for the younger ones, the patient’s age was significant for the decision. Almost all physicians agreed in not resuscitating relatives in progressive illness terminal stage, upon their request and consent. The majority also considered relevant the register of the DNR in the medical records, without the fear of being sued, and that the physician jointly with the family should take part in the decision.

The non-resuscitation of patients in terminal stage progressive illness is a humanistic act which aims to meet the bioethical principle of nonmaleficence with the primordial objective of reducing human distress and avoid the practice of dysthanasia. The results found in this survey allows us to infer that it is a right moment for the preparation of ethical directives on the do not resuscitate order in Brazil, filling the existing regulation gap in the law.

### Referências

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Participation of the authors
Elzio Luiz Putzel and Klisman Drescher Hillesheim have participated integrally in the research and in the writing of the article. Elcio Luiz Bonamigo was the responsible for conducting the research and has participated in the writing of the article. All authors have approved the final writing of the work.
Appendix

Questionnaire

1. Age:
2. Are you a medical specialist? If yes, which are your specialty?
3. Which is your workplace?
   a. ( ) Hospital
   b. ( ) Primary Care Unit (UBS)
   c. ( ) Mobile Urgency Care Service - Samu
   d. ( ) Private Clinic
4. Do you know the meaning of “Do Not Resuscitate Order”? 
   a. ( ) Yes  b. ( ) No
5. In your opinion there are ethical directives about “do not resuscitate order” in Brazil?
   a. ( ) Yes  b. ( ) No
6. In your professional activity have you already seen or have you had to assist a patient in a cardio-respiratory arrest?
   a. ( ) Yes  b. ( ) No
7. If you were the assistant physician of terminal patient, would you prescribe or would you execute the ‘do not resuscitate order’?
   a. ( ) Yes  b. ( ) No
8. In your opinion, does the age of the patient interfere in the decision-making for resuscitating or not?
   a. ( ) Yes  b. ( ) No
9. Do you think it is appropriate in current times that directives on the ‘do not resuscitate order’ should exists or be prepared in Brazil?
   a. ( ) Yes  b. ( ) No
10. Do you consider important the register of the ‘do not resuscitate order’ in the medical records?
    a. ( ) Very important
    b. ( ) Important
    c. ( ) Of little importance
    d. ( ) Without importance
11. In your opinion who should decide about the ‘do not resuscitate order’?
    a. ( ) Physicians
    b. ( ) Physicians and nurses
    c. ( ) Nurses
    d. ( ) Physicians, nurses and family
    e. ( ) Family
    f. ( ) Physicians and family
12. If your relative were in a terminal situation and/or there were no available therapeutic conditions and it was his/her will not allowing the execution of maneuvers of cardiopulmonary resuscitation, would you be in favor of the ‘do not resuscitate order’?
    a. ( ) Yes  b. ( ) No
13. Can the physician be sued if he decides or takes part in the ‘do not resuscitate order’ of a terminal patient?
    a. ( ) I completely agree
    b. ( ) I agree partially
    c. ( ) I disagree partially
    d. ( ) I completely disagree
14. If you were in a terminal stage of an incurable disease, would you like that your anticipated directives of will be taken into consideration, that is, the desire of being resuscitated or not in case of cardio-respiratory arrest?
    a. ( ) Yes  b. ( ) No