Perspectives of Iranian Medical Nurses about Do-Not-Resuscitate (DNR) Orders

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Abstract

Objective: To study the attitudes of Iranian medical nurses towards the do-not-resuscitate (DNR) decision.

Methods: In this cross-sectional study, 200 nurses working in Imam Khomeini Hospital, (affiliated to Tehran University of Medical Sciences, Tehran, Iran) were enrolled. They answered to a questionnaire with two sections: the first one consisted of demographic questions (age, sex, and level of education), and the second included questions about DNR orders derived from a previously conducted study by Hosaka et al.

Results: A total of 168 questionnaires returned (response rate (RR=85%)). About 61% felt that DNR order is sporadically necessary. Near 66% had participated in DNRs in their practice and the most case was the patient with terminal cancer. The most common person who decided DNR orders were physicians. Sixty seven percent believed that DNR cards are useful for establishing in clinical settings.

Conclusion: As DNR is not routine in Iran, enrollment of nurses in this decision should be clearly defined.

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Introduction

For many years, there have been a lot of discussion about end-of-life decisions all over the world and there are discussions regarding different aspects of this decision such as ethics, legalities, culture and appropriate medical indications (1).

Health care providers consider different factors for determining end of life decisions like probability of survival, a patient's wish, previous quality of life and expected quality of life after the acute illness (2-5).

For making DNR decision, patient's autonomy, perspective of medical team and patient's family preferences should all be considered (6). DNR orders are used worldwide but not clearly and debates remain whether to use it or not.

According to culture and religion, this order is not routine in Iran and most of health care providers such as nurses are not familiar with this order.

The goal of this study was to assess attitudes toward DNR among Iranian medical nurses in the largest tertiary hospital of Iran.

Materials and Methods

In this cross-sectional study, which conducted between September 2013 and March 2014, 200 nurses working in Imam Khomeini Hospital (affiliated to Tehran University of Medical Sciences, Tehran, Iran) were enrolled. They were randomly selected by means of simple random selection of nurses list. The enrolled cases were contacted via either email or face-to-face contacts.

They answered to a questionnaire which included two sections: the first section consisted of demographic questions (age, sex, and level of education), and the second included questions about DNR Orders which derived from a previous study conducted by Hosaka et al (7). (We contacted corresponding author's email address (hosaka@is.icc.u-tokai.ac.jp) to obtain the permission, but the address was invalid).

All participants were asked to answer to the questionnaire during one week. We sent a reminder if they did not return the questionnaire after one week.

Statistical analyses performed using SPSS for windows (version 18; SPSS Inc., Chicago, IL, USA). Results are presented as mean ± SDs, and frequencies. P value < 0.05 was considered statistically significant.

Results

A total of 168 questionnaires returned (response rate

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(RR=85%)). Mean age of participants was 33.2±8.1 years and 152 were female (90.8%) (See Table 1).

Discussion

In this study we found that 61% of participants felt that DNR order is sporadically necessary which is lower than the rate reported by Hosaka et al (7). In their study, 86% of nurses felt that DNR order is sporadically necessary while 40% reported that they participated in DNR which is near to our report (38%). In our previous

Table 1. Attitude toward DNR among nurses.

Questions	Choices	Responses
1. Do you think that DNR is sporadically necessary?	a) Yes, and took part	65 (38.7%)
	b) Yes, but did not take part	46 (27.3%)
	c) No	36 (21.4%)
	d) Uncertain	21 (12.5%)
If you selected (a) or (b) to Q1:	a) Dignified death would be expected	30 (27.5%)
2. What are the reasons? (Two or more answers are permissible)	b) Dignified death would be expected	17 (15.6%)
	c) Dignified death would be expected	32 (29.4%)
	d) a & b	9 (8.3%)
	e) a & b	4 (3.7%)
	f) b & c	2 (2%)
3. Is patient's consent necessary in determining DNR?	a) Patient's consent (or living wills or alternatives) is indispensable	39 (23.2%)
	b) Patient's consent would be preferable, but if not available, the patien's family and the physician can decide	117 (69.6%)
	c) Others	12 (7.1%)
4. Who should make the final decision of DNR?	a) Patient, family, and doctor in charge	100 (59.5%)
	b) Doctor in charge and Ward director	18 (10.7%)
	c) Direction from the hospital committee (e.g. DNR committee)	50 (29.7%)
5. If you selected (c) to Q1, what was your reason?	a) To prolong patient's life as long as possible is the physician's duty	14 (35.8%)
	b) DNR is still legally problematic	14 (35.8%)
	c) It is uncertain when the decision should be made	4 (10.2%)
	d) It is uncertain who should make the decision	5 (12.8%)
6. After DNR is decided, what would you do?	a) CPR will not be performed, but other treatment (hyperalimentation, antibiotics, pressor agents, etc.) will be done when possible	113 (67.2%)
	b) Others	55 (32.7%)
7. Did you take part in DNRs?	a) Yes	111 (66%)
	b) No	57 (33.9%)
8. If you selected (a) to previous question: which disease?	a) Terminal cancer	60 (35.7%)
	b) Burn	8 (4.7%)
	c) Encephalopathy	9 (5.3%)
	d) Heart arrest	11 (6.5%)
	e) Patient with HIV disease	6 (3.5%)
	f) Patient with TB	3 (1.7%)
	g) Coma due to trauma	6 (3.5%)
	h) Infant with congenital diseases	8 (4.7%)
9. Who proposed DNRs? (Two or more answers are permissible)	a) Patients	3 (2.7%)
	b) Patients family	11 (9.9%)
	c) Doctor in charge	47 (42.3%)
	d) Patient's family and Doctor in charge	33 (29.7%)
	e) Other	17 (15.3%)
10. Would the establishment of a DNR order sheet be helpful?	a) Yes	95 (56.5%)
	b) No idea	53 (31.5%)
	c) No	20 (11.9%)
11. Is it helpful to have DNR card?	d) Yes	114 (67.8%)
	e) No	54 (32.1%)

study, we found that 74% of residents and 53% of interns felt that DNR order is sporadically necessary (8). In another study, Arai et al. reported that 97% of Japanese physicians believed that DNR is indispensable and near 70% had participated in DNR (9).

We also found that 35% of the nurses answered that the patient's consent (or living wills or alternatives) are indispensable in DNRs which is less than the rate reported in Hosaka et al study (35%) (7). Only 11% of participants in Arai et al study believed that patient's consent is indispensable for DNR (9). In Yang et al study, only 5% of physicians believed that patients or patient's family's consent is essential (10).

DNR decision is not legally accepted in Iran and in some other countries (according to their religion and culture). Thus, for deciding to not resuscitate a patient, different factors such as patient's medical situation, religious beliefs, patient autonomy and available medical settings should be considered.

Near 60% of nurses believed that final DNR decision should be made by physicians which is compatible with our previous study. Most residents and interns in our previous study believed that final DNR decision should be made by doctors in charge (8).

Nurses participated in DNR order of terminal cancer patients more than other diseases and physicians in charge were the most proposers of DNR orders.

In our previous study, patients with terminal cancer were the most cases that interns and residents participated in their DNR order and doctors in charge were the most proposer of the decision (8). These findings show that patients and their families are not fully considered in DNR order. This could be because of unfamiliarity of patients and their families with this term.

Fifty five percent of participants believed that it is helpful to have DNR order sheet and 67% believed that DNR cards will be helpful. It should be mentioned that religion plays an important role in this issue. As a rule, resuscitation should be done for all cases referred to hospital in Iran. Therefore, DNR concept is not common and the DNR order is established considering culture, religion, patient's autonomy and physicians' preference.

Conclusion

As DNR is not routine in Iran, enrollment of nurses in this decision should be clearly defined.

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