The Use of Do-Not-Hospitalize Orders by Family Physicians in Ohio

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A sample of Ohio family physicians was surveyed by mail questionnaire regarding physician attitudes and practices concerning do-not-hospitalize (DNH) orders. One hundred seventy-three of the 210 physicians who completed the survey provided care for patients in nursing homes. Fifty-eight percent of physicians caring for nursing home patients were familiar with the concept of do not hospitalize, and 42% had utilized a DNH order. The most commonly named reasons for using a DNH order were patient's terminal condition and patient's request. The most common reasons physicians did not use a DNH order were because of family objections and the inability of nursing homes to deliver intravenous antibiotics and fluids. Almost all physicians had encountered a clinical situation where a DNH order might be appropriate, and 73% of physicians familiar with the DNH concept had utilized the order. Familiarizing more physicians with the concept of DNH orders may have great potential for reducing health care costs and preserving patient autonomy. Future studies are needed to validate the concept of do not hospitalize. **J Fam Pract 1990; 30:61-64.**

As medical technology has advanced, the increasing cost of medical care has become an important issue in the United States. Currently medical expenditures account for more than 11% of the gross national product and are continuing to accelerate.[1,2] These rising costs make it imperative that the health care system find ways to control medical expenses. Since elderly patients consume a disproportionately large share of medical expenditures, limiting inappropriate care at the end of life has been proposed as one means to reduce health care costs.[3]

The major focus of reducing cost by limiting care in the aged has been directed toward the acute care facility. The use of resuscitation and heroic measures has received considerable attention, and orders to withhold resuscitation are now widely accepted at hospitals.[4,5] As more patients spend time in nursing homes, treatment limitations in these settings are being more closely examined.[6] In fact, many nursing homes already have resuscitation policies similar to those of hospitals.[7,8]

Despite attention given to withholding resuscitation in nursing homes, a type of treatment limitation unique to nursing homes, a do-not-hospitalize (DNH) order, has not received similar widespread attention. A DNH order focuses on the site of delivery of care with an emphasis on limiting care to that available in the nursing home.[9] In patients who do not wish to be hospitalized or in carefully selected cases in which hospitalization might offer little therapeutic gain, a DNH order can offer tremendous benefit. Restricting the locus of care to the nursing home has the potential not only for limiting cost but also for preserving patient autonomy. Despite these potential advantages, a recent survey showed that only 35% of nursing homes accept DNH orders.[8]

The formulation of health care policy and practice is a complex, multifaceted process. Since physicians are an integral part of this process, one explanation for the limited number of nursing homes accepting DNH orders might be physicians' attitudes and practices regarding DNH orders. To address this issue, answers to some basic questions were sought: Are physicians familiar with DNH orders? How many physicians have utilized a DNH order and under what conditions? What conditions may have prevented physicians from using a DNH order?

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METHODS

Family physicians in Ohio were selected as a suitable group for study. Family physicians were chosen for two reasons: first, they deliver a large proportion of the medical services given to the nursing home population of Ohio; and, second, since geriatric care is considered an important part of family medicine, most family physicians provide care for at least some patients in nursing homes.

A list of all the 1552 physician members of the Ohio Academy of Family Physicians was obtained. One fourth of the members were randomly selected as the study group. A copy of the nursing home survey, a set of directions, and a cover letter explaining the nature of the study were mailed to each subject. The survey contained a combination of multiple choice and open-ended questions concerning physician attitudes and practices regarding DNH orders. The questionnaire was piloted among physician faculty and took approximately 10 minutes to complete. Physicians not providing care to nursing home patients were asked to return the questionnaire unanswered. A follow-up letter and second questionnaire were sent to nonresponders 1 month after the initial mailing. Data regarding age, board certification, and residency training of the Ohio Academy of Family Physicians active members were obtained to verify the similarity of the study group to the entire membership.

Descriptive statistics were used to define the study sample. Means and standard deviations for age and years in practice were calculated as well as frequencies and percentages for type of practice, board certification, residency training, specialized geriatric training, director of nursing home experience, and number of nursing home patients admitted per year.

Two analyses were used to examine whether differences in physician characteristics existed between subjects who had used DNH orders and those who had not. Tests were done to determine whether age or experience differences were present. Chi-square tests of independence were used to examine for differences in the frequency data for the characteristics described.

RESULTS

Characteristics of Participants

Of the 388 family physicians selected for survey, 28 were unable to participate: 12 physicians had retired, and 2 had switched specialties; 14 surveys were returned because the physicians had moved and left no forwarding address. Of the remaining 360 physicians available for study, 249 physicians (69%) responded. Thirty-nine of these physicians declined to participate and returned the survey unanswered. Of the remaining 210 participants (58%), 37 did not provide care for nursing home patients and were excluded from answering questions regarding nursing home care.

TABLE 1. CHARACTERISTICS OF THE PARTICIPANTS (N = 210)

Participant Characteristics	Number	Percent*
Mean age (range 30–81 years)	47.5†	
Years in practice (range 1–50 years)	18.9‡	
Type of practice		
Urban	47	22
Suburban	84	40
Rural	68	32
Combination	11	5
Board certified	169	80
Residency trained	111	53
Specialized geriatrics training	3	1
Current or former medical director of nursing home	60	29
Number of nursing home patients admitted/year		
None	37	18
<5	17	8
5–15	53	25
>15	103	49

*Percentages rounded
†Standard deviation 12.6 years
‡Standard deviation 18.9 years

The study participants ranged in age from 30 to 81 years, with a mean of 47.5 years. Years in practice (mean = 18.9) ranged from 1 to 50. Most participants were board certified, but only three had received special training in geriatrics. The characteristics of the study group are summarized in Table 1. Data obtained from the Ohio Academy of Family Physicians (personal communication, Florence Landis, April 1989) for age (45.6 years), board certification (75%), and residency training (53%) were similar to the study group.

Use of Do-Not-Hospitalize Order

Of the 173 survey participants providing care for nursing home patients, 100 physicians (58%) were familiar with the concept of DNH orders, and 73 physicians (42%) had used a DNH order. Therefore, 73% of physicians familiar with the concept of a DNH order had used the order at least once. Physicians' years in practice, practice location, and board certification were not significant factors in distinguishing physicians who used DNH orders from those who did not. Physicians who served as medical directors of nursing homes, however, were more likely to be familiar with and to use DNH orders than were physicians who were not directors ($\chi^2 = 7.45$, $df = 1$, $P < .01$).

TABLE 2. REASONS FOR PHYSICIANS USING DO-NOT-HOSPITALIZE ORDERS

Reasons	Percent
Patient request	70
Terminally ill	61
Poor quality of life	40
Demented patient	34
Other	3

The most common criterion for physician use of a DNH order was patient request. Other conditions under which physicians would utilize a DNH order are summarized in Table 2.

Conditions Preventing Use of Do-Not-Hospitalize Orders

Almost all physicians had encountered a situation in which a DNH order might be appropriate, and only 15% felt that such an order was morally unacceptable. Almost all physicians, however, felt there were conditions that might prevent them from using a DNH order. The most frequently named reason not to use a DNH order was the objection of the family. Other situations that might prevent physicians from using DNH orders are summarized in Table 3. The most commonly named other condition was that physicians felt they would transfer a patient with a reversible medical problem to an acute care facility.

DISCUSSION

Ethically acceptable treatment limitations in long-term care are becoming more important since one in four elderly patients will spend time in a nursing home.[10] This survey found 58% of the participants who provide care for nursing home patients were familiar with one type of treatment limitation, a DNH order. Forty-two percent of respondents had actually written a DNH order. Although about one half of the physicians surveyed were familiar with a DNH order, almost all had encountered a clinical situation where a DNH order would be appropriate. These findings imply that patients may be hospitalized without the option of considering a DNH order since many physicians are unfamiliar with the concept. Failure to consider a DNH order can lead to a loss of autonomy with undesired, expensive, and extensive stays in acute care facilities. Although physicians may assume that they know which patients would desire hospitalization, previous studies addressing the issue of withholding resuscitation found that physicians are poor predictors of their patients' desires[11] and that many nursing home patients do not desire resuscitation.[12] It seems reasonable that many patients would similarly refuse hospitalization if the risks and benefits were discussed.

The survey also found that most physicians considered a DNH order morally acceptable in selected cases and had encountered clinical situations in which such an order would be appropriate. These attitudes and experiences suggest this group found a DNH order an ethically acceptable and practical concept. Although apparently no study has specifically examined the cost savings of DNH orders, it seems logical that limiting treatment to the site of the nursing home would result in a reduction of overall health care expenditures. Since the majority of physicians familiar with DNH orders have used them, the use of DNH orders would be more widespread were more physicians familiar with the DNH concept.

The most commonly cited reason in the study for physicians not using a DNH order was the objection of the family. Education of the public might help to correct the common misconception that since some conditions are treatable, all conditions should be treated. If this misconception were corrected, then more families might understand and agree with a DNH order if a physician felt hospitalization would be medically futile. Since "care and comfort" is a primary treatment goal for many patients, improving the ability of nursing homes to provide such treatment might also enable physicians to be more confident in limiting treatment to nursing homes and help convince families to accept a DNH order. Litigation was also a commonly named concern. Promoting better understanding of DNH orders by family members should lessen the fear of litigation.

Nearly one half of the respondents named two other related barriers to the use of DNH orders: a nursing home's inability to administer (1) intravenous antibiotics and (2) intravenous fluids. A recent study[13] concluded that the most common reason for patient transfer to an acute care facility was infection. The study also found that

TABLE 3. REASONS FOR PHYSICIANS NOT USING DO-NOT-HOSPITALIZE ORDERS

Reasons	Percent
Family objections	84
Nursing homes unable to give intravenous fluids	56
Nursing homes unable to give intravenous antibiotics	53
Fear of litigation	49
Nursing home does not accept do-not-hospitalize orders	27
Unable to obtain laboratory studies	25
Unable to obtain x-ray examination	25
Morally unacceptable	15
Never encountered clinical situation in which do not hospitalize appropriate	6
Other	4

although most infections were correctly diagnosed in nursing homes, transfer to an acute care facility was required because of the inability to administer intravenous therapy. The ability to provide such intravenous treatment at nursing homes could obviate the need for patient transfer and promote the treatment of patients at the site of the nursing home.

Although this study showed that fewer than 60% of physicians are familiar with DNH orders, the results must be interpreted cautiously. First, only family physicians were surveyed. It is possible that other groups of physicians, such as general practitioners and internists, may differ significantly in their attitudes and practices. Second, although the formal concept of DNH orders might be unfamiliar, the practical equivalent might already be occurring in nursing homes. For example, despite not having a formal DNH order written, a nursing home patient with a DNH order may not be transferred regardless of clinical state. This situation is similar to the use of a "slow code" as a substitute for a do-not-resuscitate order. A formal DNH order prevents confusion during a crisis, clarifies goals, and avoids the unwarranted transfer of a patient if the patient's usual primary care physician is unavailable. Third, the physician sample might represent regional attitudes and practices that are not applicable nationally. For example, only three physicians in the survey had specialized geriatric training. In areas where there are more geriatricians, practices might be different. Finally, the participation rate for this study was 58%. Although this rate is not ideal, there is no reason to believe that the participants differed significantly from the nonparticipants. The study group's average age, board certification, and levels of residency training were all similar to the profiles of the entire Ohio Academy of Family Physicians membership.

In conclusion, this study found 58% of physicians were familiar with the do-not-hospitalize concept and 42% had actually used a DNH order. The most commonly named objections to using DNH orders were family objections and the nursing home's inability to give intravenous fluids and antibiotics. Familiarizing more physicians and educating the public might help the concept to be more widely known and utilized. Although the authors cautiously advocate the use of DNH orders in special circumstances, further study is needed to determine its effect on the quality of care and to validate its potential for limiting costs.

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