

Characteristics of Patients Requesting and Receiving Physician-Assisted Death

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Background: Surveys have shown that physicians in the United States report both receiving and honoring requests for physician assistance with a hastened death. The characteristics of patients requesting and receiving physician aid in dying are important to the development of public policy.

Objective: To determine patient characteristics associated with acts of physician-assisted suicide.

Design: Physicians among specialties involved in care of the seriously ill and responding to a national representative prevalence survey on physician-assisted suicide and euthanasia were asked to describe the demographic and illness characteristics of the most recent patient whose request for assisted dying they refused as well as the most recent request honored.

Results: Of 1902 respondents (63% of those surveyed), 379 described 415 instances of their most recent request

refused and 80 instances of the most recent request honored. Patients requesting assistance were seriously ill, near death, and had a significant burden of pain and physical discomfort. Nearly half were described as depressed at the time of the request. The majority made the request themselves, along with family. In multivariate analysis, physicians were more likely to honor requests from patients making a specific request who were in severe pain (odds ratio, 2.4; 95% confidence interval, 1.01-5.7) or discomfort (odds ratio, 6.5; 95% confidence interval, 2.6-16.1), had a life expectancy of less than 1 month (odds ratio, 4.3; 95% confidence interval, 1.7-10.8), and were not believed to be depressed at the time of the request (odds ratio, 0.2; 95% confidence interval, 0.1-0.5).

Conclusion: Persons requesting and receiving assistance in dying are seriously ill with little time to live and a high burden of physical suffering.

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AMID CONTINUED controversy, national surveys¹⁻⁴ suggest that 1 in 5 physicians in the United States have received at least 1 request to assist a terminally ill patient to die, and approximately 3% to 18% accede to these requests^{1,4-6} despite legal prohibition against the practice in all states but Oregon. With the exception of surveys focused specifically on oncologists,^{3,7} early reports from Oregon after legalization,⁸⁻¹¹ and small studies from single states,^{6,12} little is known about the characteristics of patients requesting aid in dying and what patient characteristics are associated with a physician's decision to honor a request. We previously reported results from a national survey of US physicians' experiences with respect to physician-assisted suicide and euthanasia by lethal injection.¹ In this article,

we report data from the physician respondents' recall of the characteristics of patients making requests as well as characteristics of patients whom they decided to assist.

A patient's request for his or her physician's assistance in dying is a communication of great distress. Some physicians will explore the reasons for the request, and others will avoid the subject, but it is a powerful communication, and one physicians are not likely to forget. Most^{1,3,5-8,10-18} but not all² previous attempts to study the circumstances surrounding a patient's request for aid in dying have used the retrospective memories of physician respondents as proxies for the patient's voice. Reasons for this method include the facts that it is all but impossible to prospectively identify and interview sufficient numbers of seriously ill patients who wish aid in dying; that retrospective interviews of family care-

givers require that physicians identify both deceased patients and families who have either completed or contemplated completing an illegal act; and that physicians are a relatively accessible group for surveys. While the physician as representative of the patient's perspective is imperfect and may be a biased source of information, it is a feasible means of acquiring population data on this rare practice.¹

To this end, using data from a national representative survey (among physician specialists involved in care of the seriously ill) of US physician experiences with requests for and acts of physician-assisted death,¹ we assessed respondents' descriptions of the characteristics of those of their patients making such requests as well as variables associated with the physicians' decisions to honor them.

METHODS

The survey sample, questionnaire development, and data collection procedures are described in detail elsewhere.¹ The sample was designed to represent all practicing physicians in the United States in the 10 specialties determined in other studies most likely to receive requests for assisted death.^{5,12} We drew a stratified probability sample of 3021 doctors of medicine younger than 65 years from the 1996 AMA Physician Master File. Specialists at highest likelihood of receiving requests based on previously reported data were oversampled to maximize reporting of the events of interest.

We mailed the questionnaire to 3021 sampled physicians in August 1996. A series of remailings and telephone reminders resulted in 1902 completed questionnaires for analysis (63% response rate).

The survey (available from the authors on request) queried respondents about experiences they had had with requests for and acts of assisting a patient to die, defined as writing a prescription or administering a lethal injection with the primary intention of ending the patient's life. This terminology was chosen to avoid widespread variable interpretation of the term *euthanasia* and its qualifiers (active, passive, voluntary, involuntary). For the purposes of both the survey and this article, the phrase used in place of "active euthanasia" was "lethal injection with the primary purpose of ending the patient's life." Physicians reporting experience with such requests, regardless of their response to the request, were then asked to describe the most recent request that was refused as well as the most recent request that was honored, if any. These descriptions of the respondents' memory of their most recent patient requests are reported herein.

Physician respondents were asked to describe the source of the request (patient, patient and family, family member, or other); the nature of the request (prescription, lethal injection, or a nonspecific request for either type of assistance); the primary diagnosis; the physician's estimate of the patient's life expectancy; whether the physician believed that the patient was in pain or discomfort; the demographic characteristics of the patient; the patient's cognitive, affective, and functional state; and the duration of the physician-patient relationship. All questions were closed-end. Physician characteristics associated with receiving and acting on requests for an assisted death were reported elsewhere.¹

We used χ^2 tests to compare patient characteristics and demographic variables for patients whose requests were honored or refused. Subsequently, a stepwise logistic regression model to yield predictors of honoring a request was constructed on the basis of all patient characteristics found to be

significant in univariate analysis at a level of $P \leq .15$ or below, as well as variables found to be significant predictors in other studies.^{3-5,7,8,12} As some physicians reported both a request that was honored and one that was refused, we combined aspects of matched and unmatched studies by means of a procedure described by Moreno et al¹⁹ and implemented with PROC PHREG of SAS software (SAS Institute Inc, Cary, NC) as described by Huberman and Langholz.²⁰ Reanalysis excluding the 36 respondents who reported one response of each type had no influence on the results. We excluded from these analyses responses from physicians who stated that they would not honor a patient's request for a hastened death under any circumstances. Similar steps were used to create 2 additional multivariate logistic regression models to identify factors that influenced decisions to honor a request specifically for prescription or injection, respectively.

The study was approved by the Institutional Review Board of the Mount Sinai School of Medicine, New York, NY.

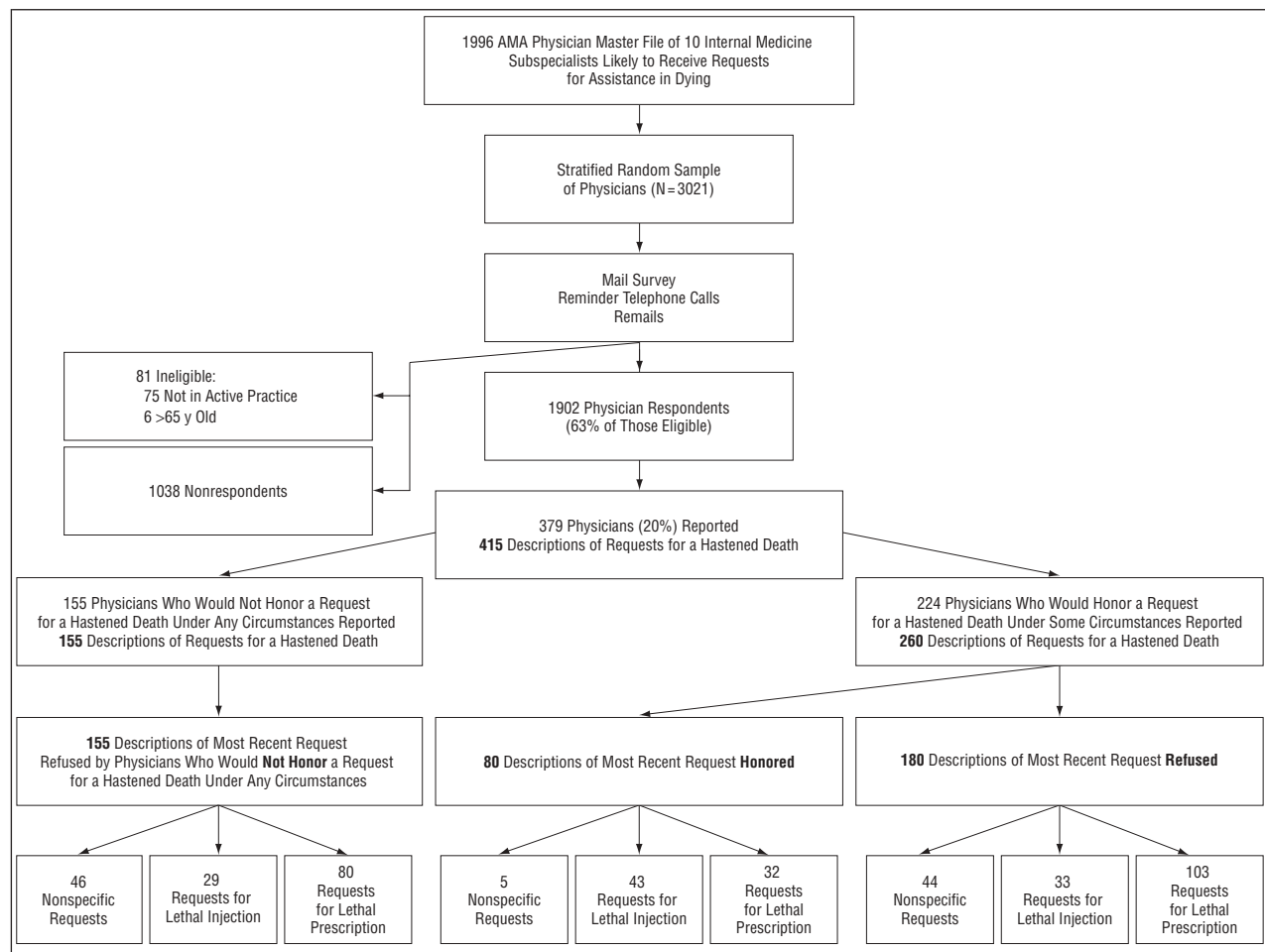
RESULTS

SOURCE OF THE SAMPLE

The **Figure** describes the origins of the sample. Of the 3021 eligible physicians surveyed, 1902 (63%) responded by returning a completed survey. Of these, 379 described characteristics of their most recent request for an assisted death. One hundred fifty-five physicians (41%) stated that they would not honor a patient's request for a hastened death under any circumstances. Of the remaining 224 physicians who stated that they would be willing to honor a request, we report 260 descriptions of their most recent request: 80 physician descriptions of patients whose requests for assistance in hastening death were honored, as well as 180 physician descriptions of patients whose requests were refused. Thirty-six physicians reported 1 request of each type (a request honored and a request refused).

CHARACTERISTICS OF PATIENTS MAKING A REQUEST

Table 1 contains physician descriptions of their most recent patient and family requests for assistance in dying. These patients were predominantly male (61%), 46 to 75 years old (56%), of white European descent (89%), Christian (78%), and middle class (71%). Almost 50% were college graduates. Almost half (47%) had a primary diagnosis of cancer, and a large number were experiencing severe pain (38%) or severe discomfort other than pain (42%). Many were described by their physicians as dependent (53%), bedridden (42%), and expected to live less than 1 month (28%). The majority (90%) were lucid, but had experienced a recent deterioration in functional status (87%). Almost half (49%) were believed by their physicians to be depressed at the time of their initial request. Most requested a lethal prescription (52%) vs a lethal injection (25%) or did not specify the type of assistance they wanted (23%). In the majority of requests (89%), the patient made the initial request, either alone or with a spouse or other family member. More than half of these patients (53%) had known



Patients requesting and/or receiving physician aid in dying, based on a national representative survey of US physicians.

the physician to whom the request was directed for a year or more.

Characteristics of patients requesting lethal prescription as compared with lethal injection are also in Table 1. Multivariate logistic regression (model not shown) with type of request (injection or prescription) as the dependent variable was used to compare patient characteristics. Patients requesting a prescription were less likely to be bedridden (odds ratio, 0.4; 95% confidence interval, 0.2-0.8), more likely to have an estimated life expectancy of longer than 1 month (odds ratio, 4.0; 95% confidence interval, 2.0-8.3), and more likely to have made the request themselves (odds ratio, 4.3; 95% confidence interval, 1.3-14.0).

DECISIONS TO HONOR OR REFUSE A REQUEST FOR AID IN DYING FOR ALL PATIENTS

Overall, respondents reported 415 requests for aid in dying. Of the 260 requests (63% of total requests) made to physicians who reported that they would, under some conditions, honor such a request, 135 (52% of 260) were made for a prescription, 76 (29%) for an injection, and 49 (19%) for either. Respondents reported honoring 32 requests for prescriptions (40% of 80 requests hon-

ored), 43 requests for injections (54%), and 5 nonspecific requests for either type of assistance (6%).

Independent predictors of having a request for aid in dying honored are given in **Table 2**. Compared with those making a nonspecific request, specific requests for assistance were significantly more likely to be honored for either prescription or injection. Other independent predictors of a physician's decision to honor a patient's request for assistance in dying included severe pain, severe physical discomfort, and life expectancy of less than 1 month. Although 21 (26%) of 80 patients receiving assistance in dying were believed by their physicians to be depressed when the request was made, physicians were significantly less likely to honor a request if they believed the patient was depressed at the time of the request.

Because of how the survey was constructed, location (home, hospital, or other) at the time of the request was obtained only on honored requests. About 50% of the respondents describing such a patient did not respond to that question at all. For this reason (missing data), location at time of request was not included in the regression models. Among the 32 patients who received a lethal prescription, 13 (41%) were at home at the time of the request, none were reported as having been in the hospital, and 19 (59%) of the data points were missing.

Table 1. Characteristics of Patients in Sample: Overall and by Type of Request

| | No. (%) | | |
|---|-------------------------|---|--------------------------------------|
| | Total Sample* (n = 415) | Requested Lethal Prescription (n = 215) | Requested Lethal Injection (n = 105) |
| Female sex | 155 (39) | 74 (35) | 39 (39) |
| White race/ethnicity | 346 (89) | 183 (90) | 87 (86) |
| Religion | | | |
| Roman Catholic | 55 (17) | 23 (14) | 16 (20) |
| Other Christian | 199 (61) | 103 (62) | 55 (68) |
| Jewish | 31 (10) | 20 (12) | 5 (6) |
| Other | 8 (3) | 3 (2) | 1 (1) |
| None | 31 (10) | 18 (11) | 4 (5) |
| Age, y | | | |
| 19-45 | 72 (18) | 38 (18) | 24 (23) |
| 46-75 | 226 (56) | 125 (59) | 52 (50) |
| >75 | 103 (26) | 49 (23) | 28 (27) |
| Social class | | | |
| Upper | 61 (15) | 27 (13) | 17 (17) |
| Middle | 285 (71) | 149 (71) | 74 (73) |
| Lower | 54 (14) | 33 (16) | 11 (11) |
| Education | | | |
| None or elementary school | 35 (10) | 11 (6) | 19 (23)† |
| High school graduate | 146 (43) | 84 (46) | 35 (43) |
| College graduate | 161 (47) | 88 (48) | 28 (34) |
| Primary diagnosis | | | |
| Human immunodeficiency virus | 55 (13) | 31 (14) | 12 (11) |
| Cancer | 194 (47) | 100 (47) | 45 (43) |
| Neurologic disease | 53 (13) | 29 (14) | 13 (12) |
| Other | 113 (27) | 55 (26) | 35 (33) |
| Experiencing severe pain | 156 (38) | 71 (33) | 40 (39) |
| Experiencing severe discomfort other than pain | 170 (42) | 77 (36) | 54 (52)‡ |
| Confused | 39 (10) | 15 (7) | 22 (21)† |
| Depressed at time of request | 202 (49) | 108 (52) | 43 (41) |
| Experienced recent deterioration in functional status | 313 (87) | 150 (86) | 89 (87) |
| Dependent for most or all of personal care | 217 (53) | 96 (45) | 71 (68)† |
| Bedridden | 173 (42) | 62 (29) | 68 (65)† |
| Physicians' estimate of life expectancy | | | |
| <1 mo | 114 (28) | 27 (13) | 63 (61)† |
| ≥1 mo | 294 (72) | 185 (87) | 40 (39) |
| Duration of patient-physician relationship | | | |
| <1 mo | 68 (19) | 24 (13) | 27 (30)† |
| 1 mo to 1 y | 100 (28) | 62 (33) | 15 (17) |
| >1 y | 191 (53) | 101 (54) | 47 (53) |
| Source of request | | | |
| Patient or patient with family | 361 (89) | 201 (95) | 72 (71)† |
| Family only | 46 (11) | 11 (5) | 30 (29) |
| Type of request | | | |
| Lethal prescription | 215 (52) | 215 (100) | 0 |
| Lethal injection | 105 (25) | 0 | 105 (100) |
| Either prescription or injection | 95 (23) | 0 | 0 |

*Total sample included 215 who requested a lethal prescription, 105 who requested a lethal injection, and 95 who made a nonspecific request.

† $P < .001$ (unadjusted comparisons of lethal prescription vs lethal injection).

‡ $P = .007$ (unadjusted comparison of lethal prescription vs lethal injection).

Among the 43 patients who received a lethal injection, 25 (58%) were in the hospital at the time of the request, 3 (7%) were at home, and 15 (35%) of the data points were missing.

Table 2. Independent Patient-Related Factors Associated With Physicians Honoring a Request for a Hastened Death*

| | Odds Ratio | 95% CI | P Value |
|--|------------|----------|---------|
| Type of request† | | | |
| Prescription | 43 | 4-440 | .002 |
| Injection | 106 | 10-1100 | <.001 |
| Patient depressed at time of request | 0.2 | 0.1-0.5 | <.001 |
| Patient in severe pain | 2.4 | 1.01-5.7 | .049 |
| Patient in severe discomfort other than pain | 6.5 | 2.6-16.1 | <.001 |
| Patient life expectancy <1 mo | 4.3 | 1.7-10.8 | .002 |

Abbreviation: CI, confidence interval.

*Responses from physicians who stated that they would not honor a patient's request for assistance in dying under any circumstances were excluded from the analysis.

†Reference category was nonspecific request for prescription or injection.

Table 3. Independent Patient-Related Factors Associated With Physicians Honoring a Request for a Hastened Death by Lethal Injection or Lethal Prescription*

| | Odds Ratio | 95% CI | P Value |
|--|------------|-----------|---------|
| Lethal Injection | | | |
| Patient depressed at time of request | 0.1 | 0.2-0.4 | .002 |
| Patient in severe discomfort other than pain | 3.8 | 1.02-14.4 | .04 |
| Patient life expectancy <1 mo | 12.9 | 3.0-56.1 | .001 |
| Lethal Prescription | | | |
| Patient depressed at time of request | 0.12 | 0.03-0.5 | .004 |
| Patient in severe pain | 9.3 | 2.2-39.6 | .003 |
| Patient in severe discomfort other than pain | 21.4 | 4.6-100.8 | <.001 |
| Duration of physician-patient relationship | 1.1 | 0.99-1.2 | .07 |

Abbreviation: CI, confidence interval.

*Responses from physicians who stated that they would not honor a patient's request for assistance in dying under any circumstances were excluded from the analysis.

DECISIONS TO HONOR OR REFUSE REQUESTS FOR PATIENTS REQUESTING PRESCRIPTION AND FOR PATIENTS REQUESTING INJECTION

We performed 2 subanalyses to identify factors associated with honoring a request for aid in dying for patients requesting a prescription and for patients requesting an injection (**Table 3**). In multivariate analyses of patients requesting a prescription, patients with severe pain and severe physical discomfort other than pain were significantly more likely to have their request honored. While 10 (31%) of 32 patients receiving a prescription were reported by their physicians to be depressed at the time of their request, depressed patients were significantly less likely to have their request honored than patients not described as depressed at the time of the request.

For those requesting a lethal injection, patients with severe physical discomfort other than pain and patients with a life expectancy of less than 1 month were significantly more likely to have their request honored in the multivariate analysis. Again, although 9 (21%) of 43 pa-

tients receiving a lethal injection were described as depressed at the time of the request, depressed patients were significantly less likely to have their request honored.

COMMENT

The major finding of this analysis is that patients receiving a physician's assistance in hastening their death are making specific requests, have a substantial burden of physical pain and distress, and are expected to die of their illness within a short time. Persons receiving a lethal prescription tended to meet the criteria published before this survey,²¹ and now codified in the Oregon Death With Dignity Act.²² Requests for prescriptions are made by patients who appear to have time and capacity to deliberate before making their decision to ask for a hastened death. For their part, physicians appear to decide to honor their patients' requests for a lethal prescription among highly symptomatic individuals, a finding also reported by other investigators.^{1,3,7,12,17,18}

Requests for a lethal injection, in contrast, tended to apply to imminently dying, bedridden, and severely uncomfortable patients. Compared with those whose request was refused or those who requested a prescription, persons receiving a lethal injection had shorter life expectancies and more severe discomfort, consistent with previous work.^{12,17} The majority of acts of physician-assisted death in this study were defined by the survey's physician respondents as lethal injections (54% of 80 honored requests) as opposed to lethal prescription (40% of honored requests). While both acts were illegal at the time of this survey, only physician-administered lethal prescription is now legalized in Oregon.

Previous descriptive studies of seriously and terminally ill persons,²³⁻²⁵ as opposed to studies of persons requesting a hastened death, have looked at somewhat different patient populations than those described in the present study. For example, the patients described herein, all of whom requested some type of assistance in hastening death, were more likely to have cancer, to have completed more than a high school education, to be white, and to be Jewish than the patient groups described in studies of seriously ill and dying patients who had not made such a request.^{2,23-25} By contrast, other studies of patients requesting and/or receiving assistance in dying have identified, similar to the present work, a higher proportion of men than women,^{1,8,12} whites than other ethnic groups,^{2,4,8,16} college level of education,^{2,8,16} cancer diagnosis^{1,8,9,12-14,16,25}; a higher likelihood of care needs or confinement to bed^{1,2,8,12,16}; and a high reported prevalence of significant pain or discomfort.^{2,9,12} Thus, patients and their family caregivers who request assistance in hastening death do not appear to be similar to the general population of seriously ill and dying persons in the United States.

Our results are limited to patients of physicians in the selected specialties. Because of how the sample was drawn and the instrument constructed, we do not have data on a comparison group of seriously ill patients who did not request assistance and therefore cannot identify patient characteristics associated with making a request. Patient data reported herein do not represent a ran-

dom sample, but they were cared for by a representative sample of US physicians in specialties most likely to be involved in care of the seriously ill and dying. The patient characteristics described depend entirely for their accuracy on the memory of physicians for events that may have occurred in the distant past. Physicians' retrospective perceptions and memories of patients who requested or received assistance in dying may have been colored by a desire to appear adherent with commonly understood guidelines for the practice of assisting a patient to die. Finally, although lethal injection was carefully defined in the questionnaire as an action "with the primary intention of ending the patient's life," some respondents may have confused this action with the use of analgesic or sedative agents to induce unconsciousness for the relief of intractable suffering.¹

While our respondents were less likely to honor a request for assistance in dying from a depressed patient, nonetheless physicians did assist some individuals whom they believed were depressed at the time of their request. Although it cannot be determined from the data available to us, physicians may reason that it is normal to be depressed or may be unable to distinguish depression from sadness under circumstances of terminal illness, may believe that depression in this clinical context is untreatable, or may have tried and failed to treat their patient's depression. It is also possible that they believed that depression was not interfering with decisional capacity and was not the primary reason for the request, and was therefore of less salience in their decision to honor it. Finally, although physician respondents in this survey were most willing to assist with their patient's hastened death if the patient had substantial physical suffering, studies of patient desire for a hastened death have identified hopelessness, lack of social support, and sense of meaninglessness as the primary reasons for wanting to die.^{2,4,9,10,13,14,17,26-35} This dichotomy suggests the need for physician education on the typical basis underlying a patient's request for a hastened death to increase the likelihood of an appropriate therapeutic response to such expressions of suffering and despair. Specifically, education of physicians about the prevalence and potential treatability of depression in the seriously ill, as well as the strong association of depression with interest in and endorsement of a desire for a hastened death,^{2,17,26-32} is necessary.

Because of the persistent independent association of physical pain and discomfort with both requests for and acts of hastened death of both types, the need for physician education on effective palliation of physical distress is clear as well.³⁶ It is especially critical that physicians receive training in approaches to pharmacologic management of pain, nonpain sources of physical distress, and difficult terminal symptoms such as agitated delirium. Such training should include guidance to physicians on the important distinction between sedation to unconsciousness in the face of intractable terminal distress for the purpose of relief of suffering, and a lethal injection given for the express purpose of causing death.^{33-35,37} The acts of physician-assisted death described herein were responses to explicit requests made of physicians by suffering and terminally ill patients and

their families. To respond appropriately to these expressions of despair, physicians must be confident that they have done everything in their power to ensure patients' comfort and to relieve distress as much as possible.

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