The intention to hasten death: a survey of attitudes and practices of surgeons in Australia

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Abstract

Objective: To determine attitudes among surgeons in Australia to assisted death, and the proportion of surgeons who have intentionally hastened death with or without an explicit request.

Design: Anonymous, cross-sectional, mail-out survey between August and November 1999.

Participants: 683 out of 992 eligible general surgeons (68.9% response rate).

Main outcome measures: Proportion of respondents answering affirmatively to questions about administering excessive doses of medication with an intention to hasten death.

Results: 247 respondents (36.2%; 95% CI, 32.6%-39.9%) reported that, for the purpose of relieving a patient's suffering, they have given drugs in doses that they perceived to be *greater* than those required to relieve symptoms with the *intention* of hastening death. More than half of these (139 respondents; 20.4% of all respondents; 95% CI, 17.4%-23.6%) reported that they had never received an unambiguous request for a lethal dose of medication. Of all respondents, only 36 (5.3%; 95% CI, 2.9%-6.1%) reported that they had given a *bolus* lethal injection, or had provided the means to commit suicide, in response to an unambiguous request.

Conclusions: More than a third of surgeons surveyed reported giving drugs with an intention to hasten death, often in the absence of an explicit request. However, in many instances, this may involve the use of an infusion of analgesics or sedatives, and such actions may be difficult to distinguish from accepted palliative care, except on the basis of the doctor's self-reported intention. Legal and moral distinctions based solely on a doctor's intention are problematic.

The use of drugs to intentionally hasten the death of a terminally ill patient is prohibited in most countries, including Australia. The only country that has openly allowed medically assisted deaths is the Netherlands, where 3.4% of all deaths are reported as (intentional) medically assisted deaths.[1] Most of these are voluntary euthanasia or assisted suicide, but about a quarter are "life-terminating acts without explicit and persistent request".[2] The most recent survey indicates that 53% of Dutch doctors have practised euthanasia or assisted suicide and 23% report that they have performed "life-terminating acts without explicit and persistent request".[1]

Medically assisted deaths also occur in countries where they are prohibited and

the figures have been remarkably consistent — in the United States,[3-6] Denmark,[7] England[8] and Australia,[9] between 2.2% and 12.3% of doctors report that they have assisted death in response to an explicit request. Outside of the Netherlands, however, few studies have broadened the question of assisted death to include instances where there has been no explicit request. In a study comparing North American and Dutch physicians, 2% and 15%, respectively, reported "ending of life without an explicit request from the patient", but the numbers were small and the difference not statistically significant.[10] In Australia, it has been claimed that 3.5% *of all deaths* are cases of "ending life without explicit request".[11]

A potentially confounding issue faced by all researchers of assisted deaths is that of intention. Doctors sometimes give large doses of *potentially* lethal drugs to terminally ill patients to treat symptoms, *foreseeing* but not necessarily *intending* a medically hastened death. This kind of action has been shown consistently to have the approval of more than 80% of doctors.[1,5,7,12] However, there may be considerable ambiguity about a doctor's intention,[13] and some studies have indeed noted partial or dual intentions (to relieve pain and to hasten death) when analgesic drugs are given.[1] An intention to hasten death has been suggested as being best distinguished by the use of drugs in doses greater than those required for symptom control.[14]

Our study incorporates such a distinction. Our objective was to conduct a survey of attitudes to and practices regarding assisted death using questions that were absolutely explicit about the agent's intention.

Methods

Sample

A list was obtained of all doctors with Australian mailing addresses registered as general surgeons with the Royal Australasian College of Surgeons (*n* = 1218). No attempt was made to exclude those who had recently retired or who had subspecialised. After excluding 200 surgeons who had been randomly selected for pretesting and those who had moved, were ill or deceased (26), a final eligible sample of 992 remained.

Survey instrument

The survey instrument was an anonymous, self-administered, mail-out questionnaire (available on the MJA website at <http://www.mja.com.au.ezproxy2.library.usyd.edu.au>. The questionnaire was developed from a review of the literature, discussion within a multidisciplinary research group and extensive pretesting, including 13 interviews and consistency checks on the responses to 200 mailed questionnaires. Advice was sought on specific questions from three independent ethicists with substantially different ethical backgrounds in ethics. All questions were closed (mostly "Yes/No"), but

respondents were invited to make additional comments on the final page of the survey. The survey instrument included a clinical vignette (see Appendix), and some of the questions alluded to this vignette.

Our main question on experience with assisted death (Question 1, Box 2) was presented alone under a separate heading and was prefaced by the comment "All further questions address general issues and are not specific to the scenario [clinical vignette] . . .". Key words in Question 1 ("greater" and "intention") were printed in bold and underlined. Further testing of the understanding of this question was undertaken by interview with 10 general physicians after they had completed the entire questionnaire.

Administration of questionnaire

The questionnaire and three subsequent reminder letters were sent according to a set protocol[15] commencing in August 1999. Intention to participate was indicated by return of a labelled consent or refusal card separate from the unmarked questionnaire, and reminders were sent to those who had not returned a consent or refusal card.

Statistical analysis

Affirmative responses are reported as a proportion of *all respondents* (not just those answering the question), except where explicitly stated. The rate of missing data was less than 4.4% for all questions and less than 2.3% for questions reported here.

The Wilson procedure with correction for continuity was used to calculate 95% confidence intervals (CI) for single proportions.[16] To determine the influence of the five demographic variables (Box 1) on attitudes and practice, logistic regression analysis was performed using SAS for Windows.[17] Variables which were significant at $\alpha = 0.2$ (Pearson's χ^2 or Fisher's exact test) were entered into the logistic regression model and then eliminated in a backward stepwise procedure until only those variables remained that were statistically significantly associated with an affirmative response.

Ethical approval

Ethical approval for our study was obtained from the Hunter Area Research Ethics Committee, from the Human Research Ethics Committee of the University of Newcastle, and from the Ethics Committee of the Royal Australasian College of Surgeons.

Results

Of the eligible sample of 992 surgeons, 683 returned questionnaires (response rate, 68.9%). This sample size was associated with a precision of ± 4% (95% CI). Six

hundred and fifty-four surgeons (65.9%) returned a separate consent card or other communication indicating intention to participate; 166 (16.7%) indicated that they did not wish to participate and 172 (17.3%) did not respond. Of those who declined to participate, 25 volunteered reasons. Of the respondents, 210 (30.7%) volunteered additional comments.

Demographic features of respondents are summarised in Box 1. Only age, sex and years in practice were available for non-respondents. There were no sex differences between respondents and non-respondents, but older surgeons and those who had been in practice for longer were slightly less likely to respond. Results for selected questions are given in Box 2, with wording and textual emphasis unchanged from that in the questionnaire.

Use of drugs with the intention of ending life or hastening death

Twenty-nine respondents (4.2%) reported having given a bolus lethal injection *"in response to a sincere and unambiguous request"*, 13 (1.9%) reported assisting with suicide (Questions 3, 4, 5 and 6 in Box 2), and 36 respondents (5.3%; 95% CI, 3.8%-7.3%) had done one or both of these. Two hundred and forty-seven respondents (36.2%) reported that they had, for the purpose of relieving a patient's suffering, given drugs in doses greater than those required to relieve symptoms with the intention of hastening death (Question 1, Box 2). Of these, 139 indicated (in response to questions 3, 5 and 6, Box 2) that they had never received a sincere and unambiguous request for a lethal injection, and had never granted a request for assisted suicide. Thus, *at least* 20.4% of the entire sample (139/683; 95% CI, 17.4%-23.6%) have apparently given drugs with the intention of hastening death, but without the explicit request of the patient. Of the remaining 108 respondents who reported having given drugs with the intention of hastening death, it is unknown whether they have ever done so in the absence of a request.

Effect of religion

Religious affiliation was a significant predictor of response to questions on attitudes to and practice of intentionally assisted death. Roman Catholics were about 4-10 times more likely, and Protestants about 2-3 times more likely, to give a negative answer than colleagues who had no religious affiliation (Box 3).

Discussion

Our finding that very few doctors report having given a bolus lethal injection in response to a patient's request agrees with the findings of previous reports.[3-9] Our study also reveals that many doctors report giving drugs in doses *greater* than those required to relieve symptoms, with the *intention* of hastening death, often in the absence of an explicit request. Outside the Netherlands, this has not been widely reported.

Our main question on experience with assisted death was deliberately written to

include the use of infusions of drugs, with or without a request. That some doctors are prepared to hasten death by infusion (but not by bolus) was confirmed by volunteered comments:

"It is difficult to actually administer a lethal injection, but setting up a potentially lethal system allows a degree of psychological and physical separation from the actual event."

"The giving of a single lethal injection would be unusual. Increasing infusion is a far preferable and controllable method."

"I also appreciate the inconsistency between being prepared to 'up the dose', but not being prepared to give it as a bolus — but that's the way I feel . . ."

"I have frequently used large doses of morphine (previously heroin!) to hasten death . . . I can't see the ethical difference between this and a bolus injection in a fully informed patient . . . but simply would not be capable of the deed myself."

"Talk of bolus injections in fully competent patients is not the real-life situation. We help very ill patients to die by a combination of sustenance withdrawal, increasing analgesia and 'masterly inactivity'."

Clearly, surveys that have limited their inquiry to the administration of a bolus lethal injection are likely to have underestimated doctors' involvement with assisted death. It may be that researchers have avoided addressing the use of infusions because of uncertainty about a doctor's intentions in such circumstances. However, it is possible to be unambiguous. Our question specified an intention to hasten death, *and* a dose of drug *greater* than that required to treat symptoms. Physician interviews confirmed that the question was indeed understood by most respondents, but there is also quantitative evidence of this from the survey itself.

Firstly, there was internal consistency: 95% of those who answered affirmatively to Question 1 also answered affirmatively to a question on the *morality* of giving drugs by slow intravenous infusion with the *intention* of hastening death (Question 2, Box 3), although the questions were separated in the questionnaire.

Secondly, there was a profound effect of religious affiliation on responses to both Questions 1 and 2, with odds ratios that were similar to those measured for questions relating to euthanasia by bolus lethal injection or assisted suicide (Box 3). The only plausible explanation for this strong association is that the respondents understood Questions 1 and 2 to be about the *intentional* hastening of a patient's death. In contrast, responses to a question about the use of an infusion of drugs that might *incidentally* hasten death (Question 7, Box 3) showed *no* effect of religion, with more than 90% of respondents supporting such action regardless of religious affiliation.

Our question specified a dose of drugs greater than that required to relieve symptoms, but it may be difficult to assess symptoms once consciousness has begun to deteriorate in a dying patient. Possibly the only way to be *sure* that a patient is not suffering at this point is to render him or her deeply unconscious by giving generous doses of opiates and/or sedatives. It would then be *probable*, but not certain, that the doses used were greater than those required to relieve symptoms. One respondent volunteered a comment to this effect:

"Intravenous infusion may be used to induce an unconscious state at a rate equal or greater than that to relieve symptoms, whereby the practitioner and family are then guaranteed that all the patient's symptoms are relieved . . ."

Whether the use of generous doses of analgesic or sedative drugs constitutes "good palliative care" or "non-voluntary euthanasia" depends, according to a widely held view, on the doctor's self-professed intention.[14] Question 1 clearly specified an *intention* to hasten death. Doctors who responded affirmatively to this question have therefore crossed a legal threshold and, according to some, a moral threshold. However, it is not clear that they have acted differently from their colleagues other than by reporting their own mental state differently. Furthermore, it may be hard to distinguish many of their actions from those of Dutch doctors who have performed "life-terminating acts without explicit request". At least 20% of our entire sample appears to have given drugs with the intention of hastening death in the absence of an explicit request, similar to the 23% of Dutch doctors who report performing "life-terminating acts without explicit request".[1]

There is a discrepancy between the relatively large proportion (36.2%) of surgeons who report giving drugs with the intention of hastening death, and the small proportion (5.3%) who report giving a bolus lethal injection or assisted suicide in response to an explicit request. We believe that many of those who make up this difference have given generous doses of analgesics or sedatives by infusion to dying patients. The circumstances of these deaths, other than in the agent's reported intention, may not differ substantially from what is widely accepted as good palliative care.

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Appendix: Abridged version of the clinical vignette

Mrs S, a 60-year-old widow, presents to hospital with peritonitis and confusion and is found at operation to have a perforated carcinoma of the rectosigmoid junction which is unresectable, and is associated with peritoneal metastases. You perform a limited resection and end-colostomy.

After 10 days she has recovered from her sepsis, but has persistent pain from her metastatic disease, and is devastated to find that she has a colostomy. She says she has "had enough" and she repeats this on several occasions over the next week. You organise consultations with a psychiatrist (who does not believe she is clinically depressed), a social worker, a stomal therapist and a palliative-care specialist who prescribes oral slow-release morphine and a co-analgesic and sees her daily to adjust doses.

Five weeks after her operation, Mrs S remains in hospital because of general weakness, lack of a carer at home, and because of her pain, which is still not adequately controlled with oral analgesia. She says that she doesn't want to go on living, and that it is not just the severe pain. She complains of having lost her independence, that she is uncomfortable, and that she dislikes living with a stoma. She says that she has had a good life, but that she is "ready to go". Mrs S then asks if you will help her to die.

Subsequent questions clarified explicitly what Mrs S meant by "help her to die". The complete vignette is included in the survey instrument which is available at <http://www.mja.com.au.ezproxy2.library.usyd.edu.au>.

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1: Demographic characteristics of general surgeons — respondents and non-respondents

	Frequency	
Demographic characteristic	Respondents	Non-respondents
Age*	***n*=680**	***n*=342**

35 or less	27 (4.0%)	5 (1.5%)
36-45	147 (21.6%)	71 (20.8%)
46-55	199 (29.3%)	72 (21.1%)
56-65	154 (22.6%)	90 (26.4%)
More than 65	153 (22.5%)	104 (30.5%)
Sex†	***n*=680**	***n*=341**
Male	651 (95.7%)	330 (96.8%)
Female	29 (4.3%)	11 (3.2%)
Years in practice‡	***n*=680**	***n*=342**
Less than 10	12 (1.8%)	2 (0.6%)
11-20	150 (22.1%)	70 (20.5%)
21-30	205 (30.1%)	71 (20.8%)
31-40	162 (23.8%)	86 (25.2%)
More than 40	151 (22.5%)	113 (33.1%)
Practice setting	***n*=674**	
Teaching hospital	368 (54.6%)	
Other urban hospital	167 (24.8%)	
Rural hospital	139 (20.6%)	
Religious group	***n*=675**	
Roman Catholic	115 (17.0%)	
Protestant	225 (33.3%)	
Jewish	24 (3.6%)	

Other	25 (3.7%)
No religion	286 (42.4%)

*<0.01 (χ^2=17.4). †=0.10. ‡<0.01 (χ^2=20.5).

2: Frequency of affirmative responses to selected questions. Data are number of affirmative responses and percentage of entire sample, with 95% CIs in parentheses

Question*	Affirmative responses	
Administration of drugs with the intention to hasten death		
1. Have you ever, for the purpose of relieving a patient's suffering, given drugs (orally or parenterally, by bolus or by infusion) in doses **greater** than those required to relieve symptoms, with the intention of hastening the patient's death?	247	36.2% (32.6%-39.9%)
2. Do you believe that there are **any** circumstances in which it is morally acceptable to give a terminally ill patient sedatives or analgesics by slow intravenous infusion, in doses greater than those required to relieve symptoms, with the **intention** of hastening the patient's death?	370	54.1% (50.4%-58.0%)
Administration of lethal drugs by bolus injection on request*		

3. Have you ever received a similar request (that is, a sincere and unambiguous request, from a competent patient, **for you to administer a lethal dose of a drug)?**	187	27.4% (24.1%-30.9%)
4. Have you ever granted such a request **by giving a bolus lethal injection?**	29	4.2% (2.9%-6.1%)
Assisted suicide*		
5. Have you ever received such a request (ie, an apparently sincere request, from a competent patient, **to provide him or her with the means to commit suicide)?**	70	10.2% (8.1%-12.8%)
6. Have you ever agreed to and carried out such an action?	13	1.9% (1.1%-3.3%)
Treatment of pain by analgesic infusion*		
7. Would you be prepared to commence an opioid analgesic infusion for Mrs S's pain, and to run this at whatever dose is necessary to keep Mrs S comfortable (even if this may, **incidentally**, hasten her death)?	641	93.9% (91.7%-95.5%)
8. Suppose Mrs S continues to complain of pain until the infusion has been increased to a rate at which she is drowsy but rousable. She is apparently comfortable, and the infusion is left at this rate overnight. The following morning, the nursing staff inform you that her respiratory rate has dropped to 6, that she is no longer rousable, and that her oxygen saturation is 82%. What would you do now?		
-Reduce the infusion rate to see if she is comfortable at a lower dose	318	46.6% (42.8%-50.4%)

-Continue the infusion at the current rate	296	43.3% (39.6%-47.2%)
-Increase the infusion rate	24	3.5% (2.3%-5.3%)

*Questions 3, 4, 5, 6, 7, and 8 refer to the clinical vignette (see Appendix). All questions are "Yes/No" questions, except Question 7, which included "undecided" as an alternative, and Question 8, which offered the three alternatives indicated. The numbering and grouping of questions have been changed from the original questionnaire, but the wording and textual emphasis are identical. The headings used in this Box were not used in the original questionnaire.

3: Influence of religious affiliation on response to selected questions.* Results are proportions in each religious group responding affirmatively (odds ratios [OR] are relative to "No religion", with 95% CIs in parentheses). (The numbering of the questions coincides with that for Box 2.)

1. Have you ever, for the purpose of relieving a patient's suffering, given drugs (orally or parenterally, by bolus or by infusion) in doses **greater** than those required to relieve symptoms, with the **intention** of hastening a patient's death?

Roman Catholic	**Protestant**	**Jewish**	**Other**	**No religion**
19.3% OR, 0.28 (0.16-0.47) *P*	33.9% OR, 0.59 (0.41-0.86) *P*	33.3% OR, 0.58 (0.24-1.4) *P*=0.22	36.0% OR, 0.65 (0.28-1.52) *P*=0.32	46.4% OR, 1.00

2. Do you believe that there are **any** circumstances in which it is

morally acceptable to give a terminally ill patient sedatives or analgesics by slow intravenous infusion, in doses **greater** than those required to relieve symptoms, with the **intention** of hastening the patient's death?

Roman Catholic	**Protestant**	**Jewish**	**Other**	**No religion**
31.0% OR, 0.19 (0.12-0.31) *P*	48.6% OR, 0.40 (0.28-0.59) *P*	62.5% OR, 0.71 (0.29-1.75) *P*=0.46	60.0% OR, 0.61 (0.26-1.44) *P*=0.49	70.0% OR, 1.00

7. Would you be prepared to commence an opioid analgesic infusion for Mrs S's pain, and to run this at whatever dose is necessary to keep Mrs S comfortable (even if this may, **incidentally**, hasten her death)? (see Appendix)†

Roman Catholic	**Protestant**	**Jewish**	**Other**	**No religion**
93.0%	95.1%	100%	96.6%	92.7%

*Question 7 refers to the clinical vignette (see Appendix).
†Because of the small numbers of negative responses to this question, χ^2 analysis was potentially invalid using the categories listed. Analysis was repeated with all religious groups combined. The results were: religious groups, 94.9%; no religion, 92.7% (*P*=0.22).