Impact of specialty on attitudes of Australian medical practitioners to end-of-life decisions

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ABSTRACT

Objective: To compare attitudes and practices of Australian medical practitioners, by specialty, to a range of medical decisions at the end of life.

Design, setting and participants: As part of an international study, in 2003, a structured questionnaire was mailed to 2964 medical practitioners drawn from membership registers of Australian and Australasian professional colleges. Data from 1478 questionnaires were statistically analysed using validated instruments.

Main outcome measures: Practitioners' willingness to comply with requests from patients and/or their relatives for symptom relief which might also hasten death; provision of terminal sedation and euthanasia, or willingness to provide these on their own initiative.

Results: Respondents reported being much more willing to comply with a patient's request for increasing symptom relief, even at risk of hastening death, than for terminal sedation. Over a quarter of respondents would provide terminal sedation to competent patients on their own initiative. A small number of respondents would intentionally hasten death. There were significant differences by specialty for all three actions. Oncologists, palliative care physicians and geriatricians were least likely to actively hasten death, and more likely to act unilaterally to relieve symptoms as a medical necessity.

Conclusions: Perceptions about the causation of death and aspects of medical culture appear to influence physicians' attitudes towards medical decisions at the end of life. Our findings have implications for medical education, interprofessional communication and discussion between the medical profession and the community.

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Over the past few decades, there has been increasing attention paid to medical decisions at the end of life. Medical practitioners frequently have to make decisions that affect the timing of a patient's death,[1-10] and the frequencies with which medical decisions at the end of life occur differ between countries.[11,12] Determinants of attitudes and practices relating to such decisions include unbearable pain and suffering,[13] incompetence,[14] and patient requests,[15] as well as characteristics of the treating medical practitioner, such as sex, age, religion and specialty.[1,5,16-19]

There is ongoing debate about the involvement of medical practitioners in a range of medical end-of-life decisions, such as withholding or withdrawing life-sustaining treatment,[6,20] use of drugs for possibly life-shortening alleviation of pain and symptoms,[21] or active euthanasia and physician-assisted suicide.[22-24] Given the crucial role that medical practitioners play in this debate, ongoing assessment of their attitudes and practices related to end-of-life decision making is important.

An international study involving researchers in six European countries and Australia was therefore conducted. Results of the study, comparing attitudes and practices across the seven countries have been reported. Findings were that the main predictors of end-of-life decision making were a request from a competent patient, short life expectancy and uncontrolled pain;[25] that there was considerable variation between countries in requirements of institutional ethics committees;[26] and that most of the variation in responses was accounted for by "country".[27]

In this article, we report on the Australian component of the study, conducted in 2003, and present the results of responses, by specialty, to a series of hypothetical situations regarding medical end-of-life decisions.

METHODS

Ethical approval was obtained from the Behavioural and Social Science Ethical Review Committee of the University of Queensland.

After ensuring strict confidentiality and privacy, a maximum of 300 medical practitioners were drawn from the membership registers of Australian and Australasian professional colleges of specialties frequently involved in the care of dying patients.

The structured questionnaire used in all seven countries was piloted in Australia. Respondents were asked to provide demographic information, nominate the main clinical specialty in which they were working, and to answer a series of questions based on four hypothetical cases. The cases, three specified courses of action and the conditions under which respondents would take the specified actions are shown in Box 1. Respondents were also asked if they would prescribe drugs to enable the patient to end his or her life if that was what the patient requested. The nature of this question precluded asking about conditions such as requests from relatives, or practitioners taking the action on their own initiative.

The questionnaire was posted to the sample; anonymity was guaranteed by not numbering the questionnaires. Respondents returned a card, separately from the questionnaire, to indicate that they had responded and to request feedback. Reminder letters and non-response forms were sent 3 weeks after the initial mailing.

Statistical analysis

Questionnaires were coded and data were entered into EPI Info, version 6 (Centers for Disease Control and Prevention, Atlanta, Ga, USA) and transferred to SPSS, version 10 (SPSS Inc, Chicago, Ill, USA) for analysis. Double entry was undertaken to ensure accuracy. Weighting factors were used to correct for the different sampling fractions of each specialty and response percentages in the different strata.

RESULTS

Questionnaires were sent to 2964 medical practitioners. After deleting those who were "no longer at this address", had retired, were overseas or deceased, we had a possible sample of 2896. Completed questionnaires were received from 1540 respondents, giving a response rate of 53%. The 62 respondents who were no longer working as medical practitioners were removed, giving a valid sample of 1478 respondents (Box 2).

1 Hypothetical cases, specified actions and conditions

Each case relates to a 71-year-old patient with extensive brain and bone metastases who has undergone burdensome chemotherapy twice.

- Case 1: The patient is clear-headed and can still communicate well. You estimate the patient's life expectancy to be no more than 2 weeks. The patient has pain that is difficult to control, despite the use of analgesics in high doses.
- Case 2: The patient is clear-headed and can still communicate well. You estimate the patient's life expectancy to be at least 3 months. Pain can be adequately controlled, but the patient is extremely tired, short of breath and bedridden.
- Case 3: The patient is drowsy or subcomatose and communication is not possible. You estimate the patient's life expectancy to be no more than 2 weeks. Pain can be adequately controlled, but the patient is extremely tired, short of breath and bedridden.
- Case 4: The patient is drowsy or subcomatose and communication is not possible. You estimate the patient's life expectancy to be at least 3 months. The patient has pain that is difficult to control, despite the use of analgesics in high doses.

Specified actions

- Would you intensify the alleviation of symptoms by using drugs, taking into account the probability or certainty that this could hasten the end of the patient's life?
- Would you give drugs, such as benzodiazepines or barbiturates, to keep the patient in deep sedation until death occurs (referred to henceforth as terminal sedation)?
- Would you administer drugs with the explicit intention of hastening the patient's end of life?

Conditions under which respondents would take the specified actions

- If that is what the patient requests (Cases 1 and 2) or requested in an advance directive (Cases 3 and 4).
- Without first informing the patient (Cases 1 and 2) if that is what the relatives request (all Cases).
- On your own initiative to reduce suffering.

Response options were on a five-point scale (yes; probably; undecided; probably not; no). ◆

Demographic characteristics

Respondents were predominantly male (78%), and more than 70% were aged 40 or more years; 32% had no religious affiliation or spiritual philosophy; 45% claimed affiliation with the three mainstream Australian Christian churches (Anglican, Catholic and Uniting Church), while 15% belonged to a range of other religions and 8% held a non-religious philosophy. Fifty-four per cent of respondents stated that their belief/philosophy was very important or important in their professional attitude towards end-of-life decision making, while 46% said their belief/philosophy was not very or not at all important.

2 Reported clinical specialties of respondents

Specialty	No. on college registers sent questionnaires*	No. of respondents
Anaesthesia	300	170
General practice	300	125
Geriatric medicine	198	121
Intensive care	300	170
Internal medicine	498†	111
Neurology	262	111
Obstetrics and gynaecology	300	130
Oncology	198	123
Palliative medicine	28	29‡
Surgery	300	130
Thoracic medicine	280	147
Other§	na	109
Unknown	na	2¶
Total	2964	1478

na = not applicable. * Numbers less than 300 are totals in college registers. † Included all medical practitioners registered in a number of specialties (eg, general medicine, internal medicine, emergency medicine, vascular medicine, hypertension medicine). ‡ More respondents self-identified with this specialty than were on the college register. § Includes cardiology (27), endocrinology (8), gastroenterology (15), haematology (13), infectious diseases (9), nephrology (12), rheumatology (12) and various other specialties (13). ¶ Did not identify a specialty. ◆

Clinical specialty

Respondents' self-reported clinical specialties are shown in Box 2; some respondents nominated a primary specialty which was not in accord with their college membership.

Response rates ranged from 42% for general practice to 62% for oncology; for palliative medicine, there was a sample of 28, but 29 respondents self-identified with this specialty (Box 2).

Requests from relatives

Differences between specialty groups did not reach significance for any of the specified actions shown in Box 1 when the patient was competent (Cases 1 and 2), or for increasing drug therapy when the patient was no longer competent (Cases 3 and 4). However, differences reached or approached significance for providing terminal sedation and for giving drugs to hasten the end of the patient's life in Cases 3 and 4. The range of responses among the specialty groups are shown in Box 3.

Requests from patient/practitioner's own initiative

Increasing drug therapy: As shown in Box 4, most respondents in every specialist group would accede to a current request from a competent patient (Cases 1 and 2) to provide relief from pain and symptoms by increasing drug therapy, even if this might hasten the end of the patient's life. In both Cases 1 and 2, palliative care

3 Range of responses among specialties for three specific actions at the request of relatives

Case	Increasing drug therapy	Providing terminal sedation	Giving drugs to hasten end of patient's life
1	13% (thoracic medicine) to 24% (surgery)	0 (palliative care) to 12% (O & G)	0 (palliative care) to 4% (internal medicine, other)
2	6% (anaesthesia) to 14% (geriatrics, other)	0 (palliative care) to 7% (general practice)	0 (palliative care, surgery, thoracic medicine) to 2% (geriatrics, other)
3	74% (palliative care) to 90% (intensive care)	37% (palliative care) to 65% (O & G) (χ^2_{11}, 19.037; $P = 0.0604$)	4% (palliative care) to 25% (anaesthesia) (χ^2_{11}, 36.734; $P < 0.0001$)
4	76% (palliative care) to 91% (geriatrics)	27% (palliative care) to 63% (O & G) (χ^2_{11}, 42.082; $P < 0.0001$)	0 (palliative care) to 23% (O & G) (χ^2_{11}, 42.726; $P < 0.0001$)

O & G = obstetrics and gynaecology. ◆

specialists were least likely to report that they would do so, with oncologists also least likely in Case 2. There was greater support from respondents for taking this action on their own initiative in Case 1 than in Case 2.

In both Cases 3 and 4 (patient no longer competent), most respondents reported that they would accede to the patient's request in an advance directive to increase drug therapy, even at the risk of hastening death. Most also reported that they would take this action on their own initiative. Six of the specialist groups in Case 3 and seven in Case 4 were more likely to take such action on their own initiative than to do so at the request of relatives.

Providing terminal sedation: There was less support for providing terminal sedation, for all four Cases and under all three conditions (Box 5), than for increasing drug therapy which might hasten death. For Case 1 (competent patient in pain, with life expectancy of 2 weeks), geriatricians were least likely to provide terminal sedation, either at the request of the patient or on their own initiative, obstetricians/gynaecologists were the most likely to do so when the patient

4 Percentage (95% CI) of each specialist group answering yes/probably to the specific action of increasing drug therapy with the probability of hastening death

		Case 1		Case 2		Case 3		Case 4	
Specialty	No.*	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative
Anaesthesia	168	98.8 (97.2–100.5)	69.5 (62.4–76.6)	94.0 (90.4–97.6)	53.4 (45.6–61.1)	95.9 (92.8–98.9)	80.7 (74.7–86.8)	97.0 (94.5–99.6)	84.3 (78.8–89.9)
General practice	121	95.0 (91.1–99.0)	59.3 (50.3–68.3)	88.4 (82.6–94.2)	38.7 (29.8–47.5)	95.8 (92.2–99.5)	80.8 (73.7–88.0)	97.5 (94.6–100.3)	81.8 (74.8–88.8)
Geriatric medicine	121	96.7 (93.4–99.9)	70.1 (61.7–78.5)	93.4 (88.9–97.9)	58.1 (49.0–67.2)	95.8 (92.2–99.5)	86.7 (80.5–92.8)	96.6 (93.2–99.9)	89.0 (83.3–94.7)
Intensive care	170	100	62.3 (54.8–69.7)	99.4 (98.3–100.6)	52.4 (44.7–60.1)	98.8 (97.1–100.5)	87.4 (82.3–92.5)	98.2 (96.2–100.2)	85.1 (79.7–90.6)
Internal medicine	108	95.3 (91.2–99.4)	64.8 (55.7–74.0)	92.6 (87.6–97.6)	50.0 (40.4–59.6)	93.4 (88.6–98.2)	89.9 (84.2–95.7)	93.5 (88.7–98.2)	91.4 (86.0–96.9)
Neurology	110	97.3 (94.2–100.4)	57.0 (47.5–66.5)	92.7 (87.7–97.6)	44.1 (34.3–53.9)	98.2 (95.7–100.7)	74.8 (66.4–83.1)	98.2 (95.7–100.7)	79.6 (71.9–87.3)
Obstetrics and gynaecology	128	99.2 (97.7–100.8)	51.2 (42.2–60.3)	95.3 (91.6–99.0)	31.1 (22.8–39.5)	96.9 (93.8–99.9)	74.6 (66.8–82.4)	96.9 (93.8–99.9)	78.7 (71.3–86.1)
Oncology	118	94.0 (89.6–98.4)	78.8 (71.3–86.3)	83.9 (77.2–90.6)	62.7 (53.9–71.6)	93.2 (88.6–97.8)	91.8 (86.9–96.7)	95.7 (91.9–99.4)	92.4 (87.5–97.2)
Palliative medicine	27	88.5 (75.3–101.6)	61.5 (41.5–81.6)	84.6 (69.8–99.5)	40.7 (20.9–60.5)	88.9 (76.2–101.6)	82.1 (67.0–97.3)	96.2 (88.2–104.1)	80.8 (64.5–97.0)
Surgery	124	96.0 (92.5–99.5)	67.8 (59.3–76.2)	91.1 (86.1–96.2)	50.0 (40.8–59.2)	91.7 (86.8–96.7)	81.8 (74.8–88.8)	94.3 (90.1–98.4)	84.2 (77.5–90.8)
Thoracic medicine	147	99.3 (98.0–100.7)	76.9 (69.9–83.9)	94.6 (90.8–98.3)	59.0 (50.9–67.2)	97.2 (94.5–99.9)	90.3 (85.5–95.2)	96.6 (93.5–99.6)	88.4 (83.1–93.6)
Other	107	99.1 (97.2–100.9)	76.0 (67.6–84.3)	93.5 (88.7–98.2)	57.3 (47.6–67.0)	96.3 (92.7–99.9)	86.8 (80.2–93.3)	97.2 (94.1–100.4)	88.7 (82.5–94.8)
Total	**1449**	**97.4 (96.5–98.2)**	**66.7 (64.2–69.1)**	**92.8 (91.5–94.1)**	**50.7 (48.1–53.3)**	**95.8 (94.7–96.8)**	**84.2 (82.3–86.1)**	**96.6 (95.6–97.5)**	**85.6 (83.8–87.4)**
χ^2_{11}		29.774	42.178	34.132	44.279	18.007	33.288	8.228	20.294
P		0.0017	< 0.0001	0.0003	< 0.0001	0.0814	0.0004	0.6927	0.0414

* Maximum number of respondents for any Case or condition. † Current request for Cases 1 and 2 and by advance directive for Cases 3 and 4. ◆

5 Percentage (95% CI) of each specialist group answering yes/probably to the specific action of providing terminal sedation

		Case 1		Case 2		Case 3		Case 4	
Specialty	No.*	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative
Anaesthesia	169	60.7 (53.3–68.2)	22.7 (16.2–29.2)	40.8 (33.3–48.3)	13.6 (8.2–18.9)	66.7 (59.5–73.9)	42.4 (34.8–50.0)	65.1 (57.8–72.3)	38.0 (30.5–45.4)
General practice	123	66.7 (58.2–75.1)	22.9 (15.2–30.6)	40.2 (31.3–49.0)	16.1 (9.4–22.8)	77.5 (69.9–85.1)	60.2 (51.2–69.1)	77.5 (69.9–85.1)	54.9 (46.0–63.9)
Geriatric medicine	119	50.4 (41.3–59.5)	21.0 (13.6–28.4)	22.0 (14.4–29.6)	6.8 (2.2–11.5)	59.0 (49.9–68.0)	42.9 (33.8–51.9)	54.3 (45.1–63.5)	42.4 (33.3–51.4)
Intensive care	170	56.5 (48.9–64.0)	21.1 (14.8–27.4)	34.1 (26.9–41.3)	10.7 (6.0–15.4)	58.1 (50.5–65.6)	42.4 (34.8–50.0)	52.7 (45.1–60.3)	38.2 (30.7–45.7)
Internal medicine	109	53.7 (44.1–63.3)	29.9 (21.1–38.7)	36.7 (27.5–45.9)	13.0 (6.5–19.4)	72.0 (63.3–80.6)	53.8 (44.1–63.4)	63.6 (54.3–72.8)	48.1 (38.6–57.7)
Neurology	111	55.9 (46.5–65.2)	22.4 (14.4–30.5)	27.9 (19.5–36.4)	7.5 (2.4–12.7)	66.7 (57.8–75.6)	44.4 (34.9–54.0)	58.6 (49.3–67.9)	39.8 (30.4–49.2)
Obstetrics and gynaecology	127	77.0 (69.5–84.4)	25.4 (17.6–33.2)	55.6 (46.8–64.4)	14.9 (8.4–21.3)	84.3 (77.8–90.7)	53.3 (44.3–62.3)	83.5 (76.9–90.0)	55.7 (46.8–64.7)
Oncology	121	55.5 (46.4–64.5)	34.8 (25.9–43.6)	21.7 (14.2–29.1)	14.8 (8.2–21.4)	62.5 (53.7–71.3)	61.2 (52.3–70.0)	54.7 (45.5–63.9)	52.6 (43.4–61.8)
Palliative medicine	29	53.6 (33.9–73.3)	37.9 (19.1–56.7)	28.6 (10.7–46.5)	20.7 (5.0–36.4)	59.3 (39.5–79.1)	51.9 (31.7–72.0)	50.0 (29.4–70.6)	37.0 (17.6–56.5)
Surgery	125	61.8 (53.1–70.5)	28.1 (20.0–36.2)	37.6 (29.0–46.2)	11.0 (5.3–16.7)	68.0 (59.6–76.4)	52.9 (43.9–61.9)	59.8 (51.0–68.7)	46.3 (37.4–55.3)
Thoracic medicine	146	58.6 (50.5–66.7)	30.3 (22.8–37.9)	33.8 (26.0–41.6)	15.3 (9.3–21.2)	65.1 (57.2–72.9)	57.2 (49.1–65.4)	50.0 (41.7–58.3)	39.3 (31.3–47.4)
Other	108	56.5 (47.0–66.0)	28.8 (20.0–37.7)	38.9 (29.5–48.2)	11.5 (5.3–17.8)	70.4 (61.6–79.1)	54.7 (45.1–64.3)	58.9 (49.4–68.4)	45.7 (36.0–55.4)
Total	**1457**	**59.4 (56.9–61.9)**	**26.1 (23.8–28.4)**	**35.5 (33.0–38.0)**	**12.6 (10.8–14.3)**	**67.6 (65.2–70.1)**	**50.9 (48.3–53.5)**	**61.3 (58.7–63.8)**	**44.8 (42.2–47.4)**
χ^2_{11}		27.450	15.556	49.310	12.134	36.489	27.296	60.526	24.296
P		0.0039	0.1584	< 0.0001	0.3536	< 0.0001	0.0041	< 0.0001	0.0115

* Maximum number of respondents for any Case or condition. † Current request for Cases 1 and 2 and by advance directive for Cases 3 and 4. ◆

requested it, and palliative care specialists were most likely to do so on their own initiative; all respondents were more willing to provide it on their own initiative than at the request of relatives. For Case 2 (competent patient with pain controlled, but with symptoms of tiredness, shortness of breath, and bedridden with a life expectancy of 3 months), oncologists were least likely, and obstetricians/gynaecologists most likely, to provide terminal sedation at the patient's request, and geriatricians were least likely and palliative care specialists most likely to do so on their own initiative, again with all respondents more willing to provide terminal sedation on their own initiative than at the request of relatives.

When the patient was no longer competent, support for terminal sedation was higher; for Case 3 (pain controlled and life expectancy of 2 weeks), a majority in every specialty said they would provide terminal sedation when the patient had requested it in an advance directive, with intensive care specialists being least likely to do so and obstetricians/gynaecologists most likely to do so. Proportions of specialty groups who would provide terminal sedation on their own initiative ranged from 42.4% (anaesthetists and intensive care specialists) to 61.2% (oncologists); six groups were more willing to provide terminal sedation on their own initiative than at the request of relatives. For Case 4 (patient in pain, with life expectancy of 3 months), at least half of the respondents in each group said that they would provide terminal sedation if the patient had requested it in an advance directive (range, 50% [surgeons] to 83% [obstetricians/gynaecologists]). Few would provide terminal sedation on their own initiative, with palliative care specialists (37%) being least likely and obstetricians/gynaecologists (55.7%) being most likely to do so. Despite the fact that less than half of the respondents in eight specialty groups reported that they would provide terminal sedation on their own initiative, five groups were more willing to provide it on their own initiative than at the request of relatives.

Giving drugs to end a patient's life: As expected, giving drugs explicitly to hasten the end of the patient's life received lower levels of support in all four Cases and under all conditions than either of the other specific actions (Box 6). For competent patients (Cases 1 and 2), differences between the specialty groups reached significance under the condition of a direct request from the patient in both Cases, with palliative care specialists and oncologists least likely to do so, and anaesthetists most likely to do so. Differences reached significance under the condition of respondents taking this action on their own initiative only for Case 1

6 Percentage (95% CI) of each specialist group answering yes/probably to the specific action of giving drugs to hasten the end of a patient's life

		Case 1		Case 2		Case 3		Case 4	
Specialty	No.*	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative	Patient's request†	Own initiative
Anaesthesia	169	31.7 (24.6–38.9)	13.9 (8.6–19.3)	28.6 (21.7–35.5)	6.1 (2.4–9.9)	35.5 (28.2–42.8)	24.1 (17.5–30.7)	35.3 (28.0–42.7)	25.1 (18.5–31.8)
General practice	123	22.8 (15.2–30.3)	3.4 (0.1–6.7)	16.4 (9.7–23.1)	2.6 (–0.3 to 5.5)	29.4 (21.1–37.7)	18.0 (11.1–25.0)	25.8 (17.9–33.8)	12.3 (6.4–18.2)
Geriatric medicine	120	11.8 (5.9–17.6)	5.9 (1.6–10.2)	5.8 (1.6–10.1)	0.8 (–0.8 to 2.5)	7.6 (2.7–12.4)	7.6 (2.7–12.4)	7.7 (2.8–12.6)	9.2 (4.0–14.5)
Intensive care	169	18.3 (12.4–24.2)	5.9 (2.3–9.5)	14.3 (8.9–19.6)	2.4 (0.1–4.7)	19.2 (13.1– 25.2)	11.5 (6.6–16.4)	18.9 (13.0–24.9)	10.8 (6.1–15.6)
Internal medicine	111	17.1 (10.0–24.2)	11.1 (5.1–17.1)	12.7 (6.4–19.1)	3.7 (0.1–7.4)	23.1 (15.1–31.2)	18.3 (11.0–25.7)	22.2 (14.3–30.2)	13.8 (7.2–20.3)
Neurology	111	27.0 (18.6–35.4)	11.3 (5.2–17.5)	15.5 (8.6–22.3)	2.9 (–0.4 to 6.2)	24.3 (16.2–32.4)	16.7 (9.5–23.8)	23.4 (15.4–31.4)	14.8 (8.0–21.6)
Obstetrics and gynaecology	127	29.9 (21.8–38.0)	7.3 (2.6–12.0)	23.6 (16.1–31.1)	6.6 (2.1–11.0)	33.1 (24.8–41.4)	20.0 (12.7–27.3)	32.3 (24.0–40.5)	22.8 (15.2–30.3)
Oncology	122	3.3 (0.1–6.5)	4.2 (0.5–7.9)	2.5 (–0.3 to 5.3)	0.8 (–0.8 to 2.5)	8.3 (3.3–13.2)	8.2 (3.3–13.1)	9.4 (4.0–14.8)	5.2 (1.1–9.3)
Palliative medicine	29	3.6 (–3.8 to 10.9)	3.4 (–3.6 to 10.5)	3.6 (–3.8 to 10.9)	3.6 (–3.8 to 10.9)	7.4 (–3.2 to 18.0)	7.1 (–3.0 to 17.3)	7.4 (–3.2 to 18.0)	3.6 (–3.8 to 10.9)
Surgery	125	24.4 (16.7–32.1)	13.6 (7.3–19.8)	8.8 (3.8–13.8)	6.8 (2.2–11.4)	24.2 (16.6–31.8)	17.1 (10.2–24.0)	24.0 (16.4–31.6)	17.6 (10.7–24.6)
Thoracic medicine	146	16.4 (10.4–22.5)	6.3 (2.2–10.3)	10.3 (5.3–15.3)	4.1 (0.9–7.4)	21.2 (14.5–27.9)	16.6 (10.4–22.7)	16.7 (10.5–22.8)	7.7 (3.3–12.1)
Other	108	24.3 (16.0–32.6)	10.5 (4.5–16.4)	13.9 (7.3–20.5)	5.8 (1.2–10.3)	25.2 (16.9–33.6)	20.6 (12.8–28.3)	27.1 (18.5–35.7)	22.2 (14.3–30.2)
Total	**1460**	**20.5 (18.4–22.6)**	**8.4 (6.9–9.8)**	**14.1 (12.3–15.9)**	**3.9 (2.9–4.9)**	**22.8 (20.7–25.0)**	**16.1 (14.2–18.0)**	**22.1 (20.0–24.2)**	**14.6 (12.7–16.4)**
χ^2_{11}		60.648	24.357	66.885	15.882	61.953	27.947	59.437	49.170
P		< 0.0001	0.0113	< 0.0001	0.1455	< 0.0001	0.0032	< 0.0001	< 0.0001

* Maximum number of respondents for any Case or condition. † Current request for Cases 1 and 2 and by advance directive for Cases 3 and 4. ◆

(ranging from 3.4% for general practitioners and palliative care specialists to 13.6% for surgeons and 13.9% for anaesthetists). In both Cases 1 and 2, almost all respondents were more likely to undertake the action on their own initiative than at the request of relatives.

For Cases 3 and 4, differences between the groups reached significance under both conditions. More respondents reported that they would give drugs to hasten the end of the patient's life if requested by a patient in an advance directive than would do so when the patient was competent. In both Cases and under both conditions, anaesthetists were most likely and palliative care specialists and geriatricians least likely to do so. Almost all groups were more willing to give drugs with the explicit intention of hastening the end of the patient's life on their own initiative than at the request of relatives in Case 3, and seven groups were more willing to do so in Case 4.

Physician-assisted suicide: The proportion of respondents who reported that they would prescribe drugs to enable the patient to end his or her life if that was what the patient requested was 13% in Case 1 and 10% in Case 2. Significant differences by specialty for this question were revealed by χ^2 analysis (Box 7).

Groups most likely to report that they would prescribe drugs for the purposes of suicide if the patient requested this in both cases were anaesthetists, followed by obstetricians/gynaecologists, and a further 11% of both groups were undecided about whether or not they would do so. Oncologists and geriatricians were the least likely to report that they would take this action, and were the two groups most likely to report that they would not do so.

DISCUSSION

Overall, our results reflect strong medical support for patient self-determination, but also the acceptance of decision-making responsibility by relatives once competence is lost. Intensifying drug therapy for pain, which could hasten death, was strongly supported for competent patients, but there was far less support for providing terminal sedation, even if requested by a competent patient. This may reflect a feeling that providing terminal sedation is a more direct method of hastening death than increasing pain relief, and is thus less acceptable within medical culture. However, we also note that 26.1% of medical practitioners would be willing to provide terminal sedation on their own initiative to competent patients with poorly controlled pain and 2 weeks to live. For these respondents, the extreme conditions of Case 1 appear to extinguish the

7 Percentage of each specialist group answering yes/probably to the question on physician-assisted suicide*

Specialty	No. of respondents	Case 1	Case 2
Anaesthesia	169	25%	22%
General practice	121	18%	12%
Geriatric medicine	120	2%	1%
Intensive care	166	16%	11%
Internal medicine	111	14%	10%
Neurology	109	15%	10%
Obstetrics and gynaecology	126	21%	20%
Oncology	121	1%	1%
Palliative medicine	29	10%	7%
Surgery	127	15%	9%
Thoracic medicine	146	6%	3%
Other	107	14%	8%
Total	1452	13%	10%
χ^2_{11}		67.509	70.788
P		< 0.001	< 0.001

* Applicable only to competent patients (Cases 1 and 2). ◆

need for a request from the patient before taking such action. For patients who have lost their competence, the proportion of medical practitioners willing to institute terminal sedation rises (although not to the levels of willingness to intensify pain treatment), and this is the same if requested by relatives or on the doctor's own initiative.

Like those of other studies,[2] our results indicate that low but significant proportions of medical practitioners would give drugs intentionally to hasten death in different situations, despite the fact that this is unlawful in Australia. Overall, more respondents would, on their own initiative, intentionally hasten the death of incompetent patients than competent patients, but the fact that any medical practitioners would take such unilateral action in relation to competent patients is cause for concern. While we believe that the case descriptions, actions and conditions presented to respondents were unambiguous, it is possible that some of the respondents interpreted "on your own initiative" to mean that they would be willing to broach the subject of giving drugs to hasten death, and to then respond positively to a competent patient's request — still unlawful, but ethically far less problematic.

Some of the trends discussed for the whole sample are different for individual specialty groups. The intensification of drug therapy, which is legal in Australia if appropriate for the relief of symptoms, was strongly supported across the specialties, although for Case 1, palliative care specialists, and for Case 2, palliative care specialists and oncologists, were least likely to do this. Patients with a 2-week life expectancy and poorly controlled pain received least support for terminal sedation at their own request from geriatricians, and somewhat low levels of support from palliative care specialists and oncologists; conversely, most support for terminal sedation, when initiated by the medical practitioner, came from palliative care specialists and oncologists. For patients with controlled pain and a longer life expectancy, oncologists were least likely to accede to the patient's request for terminal sedation, and palliative care specialists were most likely to provide terminal sedation on their own initiative. The results suggest that these specialties are less responsive to patient requests for procedures that will lead to death, but more prepared than others to initiate such procedures without patient consultation. We suggest that this may result from a perception that responding to patient requests is more closely associated with actively hastening death than initiating treatment, which may be more easily understood as fulfilling the duty to relieve symptoms as a medical necessity.

Palliative care specialists, oncologists and geriatricians were least likely to respond positively to a request from a competent patient for drugs to hasten death, or to give drugs intended to hasten death in cases of incompetent patients who requested this through an advance directive, irrespective of life expectancy. These low figures were also replicated for these specialties in relation to practitioners being willing to hasten a patient's death on their own initiative. This reflects expected low levels of support in these groups for active euthanasia, either voluntary or non-voluntary,[28] but the differences within each of these groups in relation to practitioners' willingness to initiate different processes which lead to death is important. While actions traditionally perceived as direct hastening of death are avoided by these groups for all patients, other actions with the same result but purportedly with different intentions (eg, terminal sedation) would sometimes be taken without reference to competent patients.

Obstetricians/gynaecologists and anaesthetists were the strongest supporters of providing terminal sedation and euthanasia to competent patients at their request, or to incompetent patients who had requested these in an advance directive, and to incompetent patients if requested by relatives. They were also the most supportive of physician-assisted suicide. However, some groups — anaesthetists and surgeons — showed some propensity to initiate euthanasia in Case 1. As indicated above, it is possible that this could reflect the idea of broaching the subject of euthanasia, rather than unilateral action to cause death.

CONCLUSIONS

Our results indicate that perceptions concerning the causation of death as well as aspects of medical culture influence attitudes towards medical decisions at the end of life. The relief of suffering is important to all specialties, and a quarter of respondents were prepared to offer terminal sedation to competent patients with poorly controlled pain and a poor prognosis. However, the specialties which are most closely involved in caring for patients nearing death — oncology, palliative care and geriatrics — were less likely to act in ways that might be perceived as actively hastening death, and more likely to act in ways which may be understood as fulfilling the duty to relieve symptoms as a medical necessity.

Since euthanasia and physician-assisted suicide are unlawful in Australia, the approach by these three specialties could be interpreted simply as being more consistent with the existing legal climate. However, as the same groups are more prone to unilateral decision making, sometimes without reference to competent patients, their avoidance of active hastening of death could also reflect a generally weaker recognition of patients' wishes.

Our findings point to the need to include decision-making theory and practice within medical ethics curricula, and to facilitate more discussion between specialties about medical decisions at the end of life. In addition, further collaborative research on the attitudes of patients, carers and the general community to medical end-of-life decisions would provide useful comparative perspectives between the attitudes of physicians and those of the communities in which they practise.

COMPETING INTERESTS

None identified.

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