

Queensland University of Technology Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

Cartwright, Colleen Maria, White, Ben P., Willmott, Lindy, Williams, Gail, & Parker, Malcolm Holbrook (2016)

Palliative care and other physicians' knowledge, attitudes and practice relating to the law on withholding/withdrawing life-sustaining treatment: Survey results.

Palliative Medicine, 30(2), pp. 171-179.

This file was downloaded from: http://eprints.qut.edu.au/84801/

© Copyright 2015 The Author(s)

Notice: Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:

http://doi.org/10.1177/0269216315587996

Palliative Care and other physicians' knowledge, attitudes and practice relating to the law on withholding/withdrawing life-sustaining treatment: Survey results

Cartwright C^{1,} White B², Willmott L², Williams G³, Parker M⁴

 ¹ASLaRC Aged Services Unit, Southern Cross University, Gold Coast, Australia
 ²Australian Centre for Health Law Research, Queensland University of Technology, Brisbane, Australia
 ³School of Population Health, University of Queensland, Brisbane, Australia
 ⁴School of Medicine, University of Queensland, Brisbane, Australia

Corresponding Author:

Professor Colleen Cartwright, Principal Director, Cartwright Consulting Australia PO Box 98, Miami, Qld, 4220 Email: colleen.cartwright@scu.edu.au Ph: +61 411 048 635

Abstract

Background: To effectively care for people who are terminally ill, including those without decision-making capacity, palliative care physicians must know and understand the legal standing of Advance Care Planning (ACP) in their jurisdiction of practice. This includes the use of advance directives/living wills (ADs) and substitute decision-makers (SDMs) who can legally consent to or refuse treatment if there is no valid AD. **Aim:** The study aimed to investigate the knowledge, attitudes and practices of medical specialists most often involved in end-of-life care in relation to the law on withholding/ withdrawing life-sustaining treatment (WWLST) from adults without decision-making capacity.

Design/participants: A pre-piloted survey was posted to specialists in palliative, emergency, geriatric, renal and respiratory medicine, intensive care and medical oncology in three Australian States. Surveys were analysed using SPSS20 and SAS 9.3. **Results:** The overall response rate was 32% (867/2702); 52% from palliative care specialists. Palliative Care specialists and Geriatricians had significantly more positive attitudes towards the law ($\chi^2_{42} = 94.352$; p < 0.001) and higher levels of knowledge about the WWLST law ($\chi^2_7 = 30.033$; p < 0.001), than did the other specialists, while still having critical gaps in their knowledge.

Conclusions: A high level of knowledge of the law is essential to ensure that patients' wishes and decisions, expressed through ACP, are respected to the maximum extent

possible within the law, thereby according with the principles and philosophy of palliative care. It is also essential to protect health professionals from legal action resulting from unauthorised provision or removal of treatment. (251 words)

Key words: Advance Health Care Planning; Law; Palliative Care; Treatment Refusal; Withdrawing/Withholding Life-sustaining Treatment

Key statements:

What is already known about the topic?

- Palliative care specialists increasingly care for people without decision-making capacity
- Knowledge of the law is required for medical specialists to carry out their practice within the constraints of the law, e.g. whether they are required to follow an AD and who is the lawful decision-maker for an incapacitated patient

What this paper adds?

- This study demonstrated that there are major knowledge gaps among medical specialists involved in end-of-life care
- Palliative care specialists demonstrated the highest level of knowledge of the law in this area and the most positive attitudes towards the law

Implications for practice, theory or policy?

- Lack of knowledge and/or compliance with the law can compromise patient care and put medical practitioners at legal risk
- On-going education is needed to ensure that specialists have up-to-date knowledge of the law
- There is on-going international debate and development of legislation and policies concerning substitute decision-making at the end of life for patients lacking capacity. Evidence from the literature indicates that medical practitioners in a number of countries lack adequate knowledge of the law relating to end-of-life care. This study provides evidence from Australia that may assist in deliberations in other countries.

Reporting Guidelines

This paper follows the STROBE Reporting guidelines.

Introduction

Beginning in the late 1960s, palliative care developed to address physical, psychosocial and spiritual needs of dying patients' [1] including, more recently, those with advanced dementia [2]. One of those needs is to have end-of-life care wishes respected. Concurrently with the growth of palliative care, medical science found "ways of maintaining biological life beyond its formerly natural limit due to new forms of life-sustaining medical treatment and technologies" [3:97]. Such developments have positive outcomes but also raise legal and ethical issues concerning prolonging life and the dying process. Where end-of-life care wishes include withdrawing/withholding life-sustaining treatment (WWLST), this can be challenging for health care providers, although respecting such wishes is consistent with the ethos of palliative care, which "intends neither to hasten nor postpone death" [1].

Difficult questions of respecting patients' choices at the end of life are not unique to palliative care. Frost et al [4:1174], discussing US healthcare system reforms, noted that providing end-of-life care "in accordance with patient wishes is an essential component of critical care." To help ensure that such wishes are known and acted upon "[c]linical practice relies on surrogates to make or help to make treatment decisions for incapacitated adults." [5:336]. Shared decision-making between clinicians and family

members in relation to WWLST was also endorsed by North American and European critical care societies in 2004.[6]

In Australia [7], the UK [8], Germany [8], the US [9] and most developed countries, competent patients have a legal and moral right to refuse medical treatment, even lifesaving treatment. This right is also generally available (subject to jurisdiction-specific legal requirements) to non-competent patients through Advance Care Planning (ACP). Mechanisms such as advance directives (ADs) and substitute decision-makers (SDMs) are available in most developed nations, including the UK [10], US [11,12], Canada [13] and the Netherlands [14,15].

WWLST decisions are part of mainstream medical practice [16]. Almost 40,000 adult deaths each year across Australia occur following a WWLST decision. [16] "In the United States 1 in 5 deaths occurs in or shortly after discharge from an intensive care unit (ICU) (and) [m]ost of these deaths are preceded by decisions to forgo lifesustaining treatment" [6:462] What is not certain is the extent to which such decisions comply with the law. A doctor's legal role in end-of-life care includes: assessing a patient's capacity to make treatment decisions, determining who the authorised SDM is if the patient does not have capacity, and knowing whether a person's AD is valid under the law and must be followed in the prevailing circumstances [16].

6

Australia, like the US, Canada and, to some extent, the UK, is a federation, with each part of the federation having its own laws, terminology, documentation and policies in relation to these issues. Not knowing the law can give rise to fear of legal liability, resulting in doctors practising defensive medicine [17]. Combined with confusion about what is/is not euthanasia, this leads to inadequate pain management, poor doctorpatient communication, inappropriate continued use of medical technology which merely prolongs the dying process, and disillusioned patients, families or carers [18].

There is limited evidence about the extent to which medical practitioners know and engage with the law (19). Whatever the law is in each country, medical practitioners need to know it and be prepared to apply it, both for the safety of their patients and for their own protection.

Aim

This study aimed to explore the knowledge, attitudes and practices relating to WWLST law for adults lacking decision-making capacity, of physicians in seven specialties, including palliative care, in three Australian States.

Methods

Ethics approval: The study was approved by the Human Research Ethics Committees at the Queensland University of Technology (1100001137), Southern Cross University (ECN-11-222) and the University of Queensland (2011001102).

Survey development: The survey instrument development was informed by a detailed review of the law in each State (reported in three papers [16,20,21]), 3 focus groups (1 in each State N=16), pre-testing (N=35, 77% response) and piloting (N=258, 26% raw response rate;16% reweighted by specialty) of the instrument with specialists in each State. To enhance potential response in the main survey, the questionnaire length was reduced and the formatting enhanced.

The questionnaire contained six sections:

<u>Section A</u>: Perspectives, asked respondents their level of agreement with each of 11 statements about (a) *the role of the law* relating to WWLST in medical practice, and (b) *knowing and following the law*, on a 5-point scale from Strongly Disagree (SD) to Strongly Agree (SA).

<u>Section B</u> (not reported in this paper) asked about education and training. <u>Section C:</u> Knowledge of the law, asked respondents how much knowledge of the WWLST law they currently have, on a 4-point scale, from Very Little to Considerable Knowledge, and whether they thought that 6 statements about the law in their State were True, False or they "Don't Know". To ascertain participants' knowledge regarding SDMs, they were presented with the following scenario and asked to identify the legally-authorised SDM from the 4 potential decision-makers.

A middle-aged woman with a life-limiting disease, taken to hospital unconscious, with a consequent need for health decisions to be made by others. She had not completed an AD nor appointed a substitute decisionmaker. The following potential decision-makers were present at the hospital: the patient's husband (from whom she has been separated for many years); her son (who is also her attorney for financial matters); her daughter (who is currently her full-time carer); and the patient's same-sex partner of 5 years.

<u>Section D</u>: Practice in relation to the law. Respondents were provided with a second scenario, which involved a patient who had completed an AD but to comply with it would be clinically and ethically challenging as follows:

A patient had completed an advance directive (name of this document in the survey reflected State differences) 5 years previously, soon after being diagnosed with AIDS. In his AD he refused antibiotics for any future lifethreatening infection and wished only to be kept comfortable. He became ill with a life-threatening infection and requires antibiotics to survive. Both his family and doctors wish him to receive antibiotics as he would be likely to recover from the infection and continue to live as before. If he is not given the antibiotics it is likely he will die.

Respondents were asked "Would you commence antibiotics?"

<u>Section E</u>: Experience relating to the law. One question from this section (reported in this paper) asked respondents how often they are asked about the WWLST law, on a 5-point scale from Never to Very Often.

Section F collected respondents' demographic information.

Sampling: The sample cohort comprised all specialists in palliative, emergency, geriatric, renal and respiratory medicine, intensive care and medical oncology who were on the AMPCo Direct database (a comprehensive database of Australian medical practitioners) in Victoria, New South Wales and Queensland (the three most populous Australian States) (n=2,858). These specialists are most likely to be involved in making decisions about whether to WWLST in the acute setting (as determined by a very extensive literature review and amended following the piloting of the survey instrument).

Survey Administration: AMPCo Direct posted the pre-piloted survey (to ensure anonymity) in July 2012. Various methods of promotion were utilised including enlisting support from medical colleges and societies. Incentives provided included Continuing Professional Development (CPD) points, post-survey education with answers to survey questions, and the chance to win some fine wine. There were two mailed reminders. The survey closed on 31 January 2013.

Statistical analysis: Questionnaires were coded and double-entered into an Access database then transferred to SPSS 20 and SAS 9.3 for analysis. Analyses examined descriptive statistics and bivariate associations by chi-square tests. An overall attitude scale was calculated by scoring each positive statement in Qs 1 and 2 from 1-5 (extent participants agreed with the statement) and reverse scoring each negative statement from 5 -1 (extent participants disagreed with the statement) and calculating a total score for each participant for each question. Scores ranged from 11-52/55 for Q1; and from 20-47/50 for Q2 (there was one neutral statement in Q2 which was not included in the score). Scores were then grouped into octiles, as determined by PROC RANKS using SAS 9.4 statistics program, and a Mean/8 was calculated for each relevant variable.

Results

Response rates: After deleting those no longer at the contact address or not in the relevant discipline, the final denominator was 2,702. A total of 867 completed questionnaires were returned, an overall response rate of 32%. Response rates by specialty ranged from 52% from Palliative Care specialists to 24% from Medical Oncologists (hereafter, Oncologists) (Table 1: Specialty by State).

(Table 1)

Respondents' age range was 29 to 83; 66% were Male and 34% female. Comparison by age, gender, specialty and State with the total AMPCo sample found that respondents were very similar on most comparison variables except that there were fewer younger doctors among respondents than in the sample population.

Attitudes towards the law

Differences between specialty groups reached significance for six of the eleven statements and approached significance for one.

Palliative Care specialists were significantly more likely than the other groups of specialists to Agree or Strongly Agree (A/SA) that the law (a) provides a useful framework for decision-making; (b) is helpful when making these decisions; and (c) supports good medical practice; and to Disagree or Strongly Disagree (D/SD) that the law (d) is not relevant to making these decisions; (e) is out of touch with medical

practice; (f) that following the law can lead to inappropriate treatment decisions; and that (g) medical and family consensus matters more than the law (Table 2).

(Table 2)

Perspectives on knowing and following the law

Differences between specialty groups reached significance in relation to 6 of the 11 statements for this question. Palliative Care specialists were significantly more likely than other specialists (except Geriatricians for statements a and b) to A/SA that: (a) it is important for me to follow the law; and (b) following the law is the right thing to do; and to D/SD that (c) I worry about legal risk; (d) the law is too complex; (e) I am too busy to find time to know the law; and (f) the law is unclear (Table 3).

(Table 3)

An attitude score calculated from the above responses found that Palliative Care specialists and Geriatricians had significantly more positive attitudes towards the law than did the other specialists (Q1: Mean for Palliative Care Specialists was 5.67/8 and for Geriatricians 5.17/8 cf 4.45/8 overall: $\chi^2_{42} = 94.352$; p < 0.001. Q2: Mean for Palliative Care Specialists was 5.83/8 and for Geriatricians 5.15/8 cf 4.45/8 overall: $\chi^2_{42} = 79.256$; p < 0.001).

Knowledge of the law: perceived and actual

Sixty-six percent of Palliative Care specialists said that they had Moderate or Considerable Knowledge compared with 39% overall and only 20% of Oncologists (χ^2_{18} = 82.124; p <0.001). However, for the 6 True, False, Don't Know statements, only 42% of Palliative Care specialists scored 4 or more answers correct; while this was higher than the overall rate of 35%, it is somewhat inconsistent with the majority of Palliative Care specialists' perception that they had Moderate or Considerable knowledge.

Respondents' knowledge was tested further by Scenario 1; they were asked who would be legally entitled to make decisions about her medical treatment (in their respective jurisdictions).

(Note: As there are a number of differences in the WWLST law in the three participating States, e.g. in relation to SDMs., in terminology and documentation, and in relation to conditions under which Advance Directives can be actioned, , results for the two scenarios are reported by State, as well as by specialty).

The highest correct response overall (i.e., her partner) was from Victoria although this was only 36%, so more than 60% of respondents in each State either gave an incorrect

answer or did not know who had legal authority to make decisions about medical treatment in the above scenario (Table 4).

(Table 4)

Responses were collapsed to Partner and All Other Options combined and analysed by specialty. Intensive Care specialists (47%), Palliative Care specialists (45%) and Geriatricians (43%) were *significantly more likely* to correctly answer 'Partner' than the overall correct response rate (29%) while Renal (13%) and Respiratory specialists (17%) were *significantly less likely* than the other specialists to give the correct answer ($\chi^2_6 = 55.34$; p <0.001).

Analysis of a combined score for the 6 True/False/Don't Know questions and a score of 1 for a correct Scenario 1 answer found that Palliative Care specialists and Geriatricians had significantly higher levels of knowledge about the WWLST law ($\chi^2_7 = 30.033$; p < 0.001) than did the other specialists.

Practice in relation to the law

In relation to the second scenario, the majority of respondents in each State said that they would provide the antibiotics (Table 5).

(Table 5)

More than half of the respondents in every specialty said that they would provide this patient with antibiotics; however, Palliative Care specialists (54%) and Geriatricians (58%) were *significantly less likely* than other specialists to say Yes to this question, while Respiratory (77%) and Intensive Care (76%) specialists were *significantly more likely* to say Yes ($\chi^2_6 = 19.12$; p = 0.004).

Although the majority of respondents in each State said that they would give antibiotics in this case, they would not all be acting in accordance with the law in their respective States. In NSW [16] and Victoria [20] the law is that the AD should be followed and the antibiotics not given. In Queensland the law imposes limitations on when an AD can be followed; those limitations are not met in this scenario so it would require treatment be given as requested by the family [19].

How often they are asked about the WWLST law

Table 6 shows response rates for Often/Very Often by discipline for each group of questioners.

(Table 6)

Palliative Care specialists were the most likely to say that they are Often/Very Often asked by Interns/Residents/Registrars, medical students and patients/families about the WWLST law and second most likely, after Intensive Care specialists, to be asked by other medical specialists and nurses.

Discussion

While results demonstrated critical gaps in knowledge among respondents, Palliative Care specialists had more positive attitudes to the law, and its place in medical practice, than other specialists. While almost unanimous in agreeing that it is important for them to follow the law, they were the least likely of any specialty group to be worried about legal risk in performing their medical duties. This may be because an intrinsic part of palliative care training involves developing good communication skills with patients and families concerning end-of-life decisions [22], and good communication tends to reduce conflict and potential legal challenges [23].

Perhaps more importantly, from a patient perspective, these findings may also reflect the parallel and interdependent historical developments of palliative care, bioethics and law governing WWLST. All these developments were, in part, responses to perceived negative aspects of medicine's increasing ability to prolong life, as encountered by patients and families. These responses included respecting patients' wishes, minimising harm by providing comfort care when appropriate, and WWLST once its benefits are eclipsed by its burdens. They developed through continuous interactions between the community, as both recipient of care and ultimate law-maker, and particular sections of the medical profession, particularly palliative care, with a focus on the increasing recognition of the limits of curative medicine [24]. Law *per se* cannot deal directly with all the clinical, ethical, social and spiritual issues that arise at the end of life, but the law provides a framework within which these benefits – respect for patient wishes and minimisation of harm – are more likely to be realised.

In addition, although the Palliative Care specialists in this study held the most positive attitudes towards the law and had the highest level of knowledge about it of all the specialists, 36% A/SA that following the law can lead to inappropriate treatment decisions. Levels of knowledge were also not uniformly high among Palliative Care specialists, with 55% incorrectly identifying the legally-authorised decision-maker in Scenario 1.

Palliative care specialists will increasingly be caring for patients who have lost capacity and the results of this study demonstrate the need for further education in relation to the WWLST law. It is essential that medical Colleges and Palliative Care Associations provide opportunities for their members to improve their knowledge of the WWLST law, e.g., by making CPD seminars on this topic available. This should include "formal teaching on how to navigate difficult, value-sensitive decisions with surrogate decision-makers" [25:743].

An increased level of legal knowledge is particularly important given the leadership role played by palliative care in end-of-life decision-making. As outlined above, Palliative Care specialists are frequently asked for information about end-of-life decision-making legal frameworks and the lawfulness of treatment options, including for adults who lack capacity. There is therefore an onus on Palliative Care specialists to know the law in order to be able to support patients, families and clinical colleagues through end-of-life decision-making within the law that underpins it.

Strengths and Limitations: A strength of this study was that the sample included specialists from the seven specialties most likely to be involved in end-of-life decision-making in Australia, and is thus more representative than previous related studies which have generally been drawn from participants in specified training courses or cohorts, [26,27] specific health facilities, [28,29] or a single specialty or society. [30-33]

A limitation of the study was the overall response rate of 32%, although there was a 52% response rate from Palliative Care specialists overall (NSW 33%, Queensland 67%)

and Victoria 75%). The less-than-optimal response rate means that we cannot assume generalisability and also raises the potential for response bias. While our sample was representative of the population from which it was drawn in relation to State, specialty, age and gender, as outlined in Results, it is nonetheless possible that those who responded had more interest in, and perhaps more concern about the issues in this study than those who did not respond. If this is so, the knowledge gaps and need for further education may be even more acute than this study identified.

Conclusions

The significantly higher response rates from Palliative Care specialists in this study, their mostly positive attitudes toward following the law and their actual knowledge of the law, compared to the other specialists, suggest that palliative care specialists see the law as helpful and have developed skills to support their patients within the boundaries of the law. However, given the variation identified among Palliative Care respondents, ongoing vigilance is needed. Respect for patients' wishes, expressed through ACP, may still be in jeopardy and some specialists may still be at legal risk. Effective clinician training can improve ACP discussion [34] and enhance legal compliance, which, in turn should help protect patients and physicians.

This study may contribute to the international debate and development of legislation and policies concerning SDM for terminally patients lacking capacity.

Acknowledgements/Funding

This study was funded by a grant from the Australian Research Council [Project number LP0990329] and supported by guardianship partner organisations:

- Office of the Public Advocate (Vic)
- Victorian Civil and Administrative Tribunal
- New South Wales Guardianship Tribunal (now part of the New South Wales Civil and Administrative Tribunal)
- The Public Guardian (NSW)
- Queensland Civil and Administrative Tribunal
- Office of the Adult Guardian (Qld) (now the Office of the Public Guardian (Qld))
- Office of the Public Advocate (Qld)

Supplementary Materials Statement

All data from this study is held securely in a locked filing cabinet or password-protected

computer by Professor Ben White, Australian Centre for Health Law Research,

Queensland University of Technology; email bp.white@qut.edu.au

References:

- 1. World Health Organisation: <u>http://www.who.int/cancer/palliative/definition/en/</u>: accessed 24 Janaury 2015.
- 2. Hughes JC. *What does palliative care need and does dementia need it?* Keynote presentation, Alzheimer's Australia Conference, Adelaide, 2009.
- 3. Rothschild A. Physician-Assisted Dying: An Australian Perspective. In Birnbacher D and Dahl E (eds.) (2008), Giving Death a Helping Hand Part II. *International Library of Ethics, Law and the New Medicine*, Volume 38, 2008, pp97-112.
- Frost DW, Cook DJ, Heyland DK, Fowler RA. Patient and healthcare professional factors influencing end-of-life decision-making during critical illness: A systematic review. *Critical Care Medicine*, 2011; 39(5): 1174-1189.
- 5. Wendler D, Rid A. Systematic Review: The effects on surrogates of making treatment decisions for others. *Ann Intern Med*, 2011; 154(5): 336-346.
- 6. White DB, Braddock CH, Bereknyei J. Toward shared decision making at the end of life in Intensive Care Units: Opportunities for improvement. *Arch Intern Med*, 2007; 167(5): 461-467.
- 7. Willmott L, White BP, Then SN. Withholding and withdrawing life-sustaining medical treatment. In White BP, McDonald F and Willmott L (eds) *Health Law in Australia*. 2nd ed. Thomson Reuters, Pyrmont, NSW, 2014 pp. 543-592.
- Jox RJ, Michalowski S, Lorenz J, Schildmann J. Substitute decision making in medicine: comparative analysis of the ethico-legal discourse in England and Germany. *Med Health Care and Philos*, 2008; 11:153-163.
- 9. Silveira MJ, Kim SYH, Langa KM. Advance directives and outcomes of surrogate decision making before death. *NEJM*, 2010; 362: 1211-1218.
- Herring J. Medical law and ethics. 4th ed. Oxford: Oxford University Press;
 2012. Chapter 4, Consent to treatment; p. 149-220. Chapter 9, Dying and death;
 p. 472-562.

- 11. Meisel A, Cerminara KL, Pope TM. The right to die: The law of end-of-life decision making. 3rd ed. New York: Aspen Publishers.
- 12. Pope TM. Legal fundamentals of Surrogate decision making. Chest 2012 Apr;141(4):1074-81.
- 13. Gilmour JM, "Death, Dying and Decision-making about End of Life Care" (ch9) in Downie J, Caulfield T, Flood CM. *Canadian Health Law and Policy*. 4thed. Toronto: LexisNexis; 2011
- 14. Dutch Medical Treatment Act: Wijzigingswet Burgerlijk Wetboek, enz. (geneeskundige behandelingsovereenkomst) Geldend op 12-01-2015
- 15. Manalo MFC. Withholding and withdrawing life-sustaining treatment: Euthanasia or acceptable medical practice? *FEU-NRMF Medical Journal*, 2011; 17(2): 68 – 78
- White B, Willmott L, Trowse P, Parker M, Cartwright C. The legal role of medical professionals in decisions to withhold or withdraw life-sustaining treatment: Part 1 (New South Wales). *J Law & Medicine*, 2011; 18(3): 498– 522.
- McCrary SV, Swanson JW, Coulehan J, Faber-Langendoen K, Olick RS, Belling C. Physicians' legal defensiveness in end-of-life treatment decisions: Comparing attitudes and knowledge in States with different laws. *J Clinical Ethics*, 2006, 17(1): 15-26.
- 18. Cartwright C, Shaw K. *End of Life Care*. In Caplan G (ed.) *Geriatric Medicine*. *An Introduction*. IP Communications, Melbourne 2014, Ch. 21: 319-337
- 19. White B, Willmott L, Cartwright C, Parker M, Williams G. Doctors' knowledge of the law on withholding and withdrawing life-sustaining medical treatment. *MJA*, 2014; 201(4)

- Willmott L, White B, Parker M, Cartwright C. The legal role of medical professionals in decisions to withhold or withdraw life-sustaining treatment: Part 3 (Victoria). *J Law & Medicine*, 2011; 18(4): 773-797.
- Willmott L, White B, Parker M, Cartwright C. The legal role of medical professionals in decisions to withhold or withdraw life-sustaining treatment: Part 2 (Queensland). *J Law & Medicine*, 2011; 18(3): 523-544.
- 22. Cartwright C, Onwuteaka-Philipsen B, William G, Faisst K, Mortier F, Nilstun T, Norup M, van der Heide A, Miccinesi G. Physician discussions with terminally ill patients: a cross-national comparison. *Palliat Med*, 2007; 00: 1-9.
- 23. Gauntlett R, Laws D. Communication skills in critical care. *Contin Educ Anaesth Crit Care Pain*, (2008); 8 (4): 121-124.
- 24. Van der Burg W. Bioethics and Law: A Developmental Perspective. *Bioethics* 1997; 11(2): 91–114).
- 25. White D B, Malvar G, Karr J, Lo B, Curtis J R. (2010). Expanding the paradigm of the physician's role in surrogate decision-making: An empirically derived framework. *Crit Care Med*, *38*(3), 743.
- 26. Schildmann J, Doyal L, Cushing A, Vollmann J. Decisions at the end of life: an empirical study on the involvement, legal understanding and ethical views of preregistration house officers. *J Med Ethics* 2006 Oct;32(10):567-70.
- Stark Toller CA, Budge MM. Compliance with and understanding of advance directives among trainee doctors in the United Kingdom. *J Palliat Care* 2006;22(3):141-6.
- McCrary SV, Swanson JW, Coulehan J, Faber-Langendoen K, Olick RS, Belling C. Physicians' legal defensiveness in end-of-life treatment decisions: Comparing attitudes and knowledge in states with different laws. *J Clin Ethics* 2006;17(1):15-26.
- 29. Hardin SB, Yusufaly A. Difficult end-of-life treatment decisions: Do other factors trump advance directives? *Arch Intern Med* 2004 Jul;164:1531-3.

- Darvall L, McMahon M, Piterman L. Medico-legal knowledge of general practitioners: disjunctions, errors and uncertainties. *J Law Med* 2001 Nov;9(2):167-84.
- Carver AC, Vickrey BG, Bernat JL, Keran C, Ringel SP, Foley KM. End-of-life care: A survey of US neurologists' attitudes, behavior, and knowledge. *Neurology* 1999 Jul;53(2):284-93.
- 32. Corke C, Milnes S, Orford N, Henry MJ, Foss C, Porter D. The influence of medical enduring power of attorney and advance directives on decision-making by Australian intensive care doctors. *Crit Care Resusc* 2009 Jun;11(2):122-8.
- Wong RE, Weiland TJ, Jelinek GA. Emergency clinicians' attitudes and decisions in patient scenarios involving advance directives. *Emerg Med J* 2012 Sep;29(9):720-4.
- Weiner JS, Cole SA. Three principles to improve clinical communication for Advance Care Planning: Overcoming emotional, cognitive and skill barriers. J Palliat Med, 2004; 7(6): 817-829.

Specialty	Qld	NSW	Vic	TOTAL
Emergency Medicine	73/270 =	106/412 =	91/386 =	270/1068 =
Emergency Medicine	25%	26%	24%	25%
	21/34 =	51/121 =	35/95 =	107/250 =
Geriatric Medicine	62%	42%*	37%	43%
	35/95 =	47/178 =	43/115 =	125/388 =
Intensive Care	37%	26%	37%	32%
	16/58 =	30/135 =	34/140 =	80/333 =
Medical Oncology	28%	22%	24%	24%
	14/01	17/52 =	21/28 =	52/101 =
	14/21 =		75%*	52%**
Palliative Care **	67%*	33%		
	15/53 =	33/108 =	32/91 =	80/252 =
Renal Medicine	28%	31%	35%	32%
	25/72 =	36/162 =	37/106 =	98/330 =
Respiratory Medicine	35%	24%	35%	30%
Other or Not Specified	N = 17	N = 15	N = 21	N = 53
	218/598 =	335/1147 =	314/957 =	867/2702 =
Total Sample	36%	29%	33%	32%

 Table 1: Response rates by Specialty by State

** Highest response rate overall; * highest by State.

	Statement	Per	Percent Agree/Strongly Agree & Disagree/Strongly Disagree by Specialty															
		P/Care N=52			gency 269		iatrics =107		Care 124		cology =80		enal =80		iratory =98		tal ¹ 808	χ^2 12;
		A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	p value
(a)	The law provides a useful framework for decision- making	62	13	44	27	57	19	35	41	45	19	44	23	44	28	45	26	30.8; p = 0.002
(b)	The law is helpful when making these decisions	70	14	36	34	47	28	35	44	34	24	35	30	40	36	40	32	40.3; p < 0.001
(c)	The law supports good medical practice	52	10	37	21	48	10	42	26	45	15	43	15	47	20	43	18	21.6; p = 0.04
(d)	The law is not relevant to making these decisions	10	86	15	75	17	82	18	71	16	78	16	70	10	80	15	76	19.3; p = 0.081*
(e)	The law is out of touch with medical practice	20	40	40	21	21	37	52	24	27	27	39	16	34	26	36	25	46.9; p < 0.001
(f)	Following the law can lead to inappropriate treatment decisions	36	36	53	17	45	29	57	22	32	25	56	22	52	24	50	23	32.0; p = <0.001
(g)	Medical and family consensus matters more than the law	35	44	69	14	51	31	66	20	56	20	65	22	53	31	60	23	42.5; p < 0.001

 Table 2: Role of Law in Medical Practice. Statements Reached/*Approached Significance (Maximum N for any statement)

¹Totals do not add to 100% as Not Sure % not reported in Table

	Statement	Per	Percent Agree/Strongly Agree & Disagree/Strongly Disagree by Specialty								alty							
		P/Care N=52			Emergency Ge N=269 N		Geriatrics		Int. Care N=124		Oncology N=80		Renal N=80		iratory =98	Total ¹ N=808		$\chi^{2}_{12};$ p value
		A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	A/SA	D/SD	
(a)	It is important for me to follow the law	96	0	79	7	90	1	82	5	89	1	88	1	84	5	84	4	22.0; p = 0.038
(b)	Following the law is the right thing to do	74	4	49	10	71	5	57	15	61	5	59	10	65	6	59	9	32.2; p < 0.001
(c)	I worry about legal risk	42	44	58	34	63	26	64	26	74	25	65	20	68	26	62	29	28.8; p= 0.004
(d)	The law is too complex	33	31	58	11	45	20	46	19	55	1	58	5	62	8	53	13	49.3; p < 0.001
(e)	I am too busy to find time to know the law	25	67	44	39	33	48	33	53	63	31	48	35	50	40	42	43	χ44.9; p <0.001
(f)	The law is unclear	27	31	38	13	29	24	41	20	28	11	36	10	43	12	36	16	29.8; p= 0.003

 Table 3: Knowing and Following the Law. Statements Reached Significance. (Maximum N for any statement)

¹Totals do not add to 100% as Not Sure % not reported in Table

State	Ν	Husband	Son	Daughter	Partner	Don't	Correct
						Know	Answer
Qld	214	18% (39)	15% (31)	12% (26)	31% (67)	24% (51)	Partner
NSW	331	8% (28)	52% (172)	8% (27)	22% (71)	10% (33)	Partner
Vic	306	21% (65)	7% (20)	13% (39)	36% (111)	23% (71)	Partner
TOTAL	851	16% (132)	26% (223)	11% (92)	29% (249)	18% (155)	

Table 4: Who can legally make decisions about Jenny's medical treatment? % (n)

Table 5: Percentage of respondents by State who would commence antibiotics

State	Yes	No				
Queensland	72%	28%				
New South Wales	72%	28%				
Victoria	63%	37%				
Total	69%	31%				
	$\chi^2_2 = 7.05; p = 0.03$					

Table 6: How often asked by others about issues relating to WWLST law for adults who lack capacity: Percent Often or Very Often % (n)

Specialty	N*		Interns/ Residents/ Registrars	Medical Students	Nurses	Patients/ Families
Emergency Medicine	263	12% (34)	45% (119)	19% (50)	32% (85)	30% (80)
Geriatric Medicine	106	17% (18)	50% (43)	28% (30)	32% (34)	41% (44)
Intensive Care	119	34% (41)	44% (53)	26% (31)	47% (56)	34% (41)
Medical Oncology	79	3%(3)	18% (15)	7% (6)	11% (9)	23% (18)

Palliative Care	49	20% (10)	63% (31)	49% (24)	40% (20)	45% (22)
Renal Medicine	76	16% (13)	30% (23)	9% (7)	27% (21)	23% (18)
Respiratory Medicine	95	10% (10)	29% (28)	10% (10)	14% (14)	28% (27)

*Maximum N for any question