Advance Care Planning

A Comparison of Values Statements and Treatment Preferences

Russ C. Kolarik, MD, Robert M. Arnold, MD, Gary S. Fischer, MD, Barbara H. Hanusa, PhD

BACKGROUND: Advance directives (AD) with specific treatment preferences can be difficult to apply in actual clinical situations. As an alternative, advance directives that outline patient goals and values have been advocated.

OBJECTIVE: To compare patient reactions to values-based and treatment-based advance directive forms.

SETTING: Two academic general medicine outpatient clinics in Pittsburgh, Pa.

METHODS: Outpatients age 55 or older who did not have an AD and were not demented were randomly assigned to complete either Emanuel's Medical Directive (EMD) or Pearlman's values history (PVH) form.

MEASUREMENTS: Length of time to complete and number of questions asked about the AD forms; proportions of patients discussing the AD with family, designating a surrogate, returning the AD by mail, and desiring to have the AD in the medical record; patient ratings of AD by telephone interview; physician report of patient-initiated AD discussions.

RESULTS: Of the 275 patients approached, 143 refused, 69 already had an AD, 63 patients were enrolled, and 25 in each group completed the telephone interview. A majority of individuals in both groups had conversations with others about the AD (60% EMD, 56% PVH; $P = .77$). All PVH forms designated a surrogate, whereas 79% of EMD forms did so ($P = .02$). One patient in each group initiated a conversation with his or her physician about AD following study completion. Both forms were thought to be a good first step in planning care at the end of life (92% EMD vs 84% PVH totally or mostly agree; $P = .06$). Patients completing the EMD thought it would give them control over the way their doctor cared for them at the end of their lives more than did the PVH group (84% EMD vs 48% PVH totally or mostly agree; $P = .02$). More patients completing the EMD form worried that it would be difficult to change answers on the form if they later changed their minds (20% EMD vs 4% PVH totally or mostly agree; $P = .02$).

CONCLUSIONS: Both the values-based and treatment-based AD forms were rated favorably overall. Patients thought the treatment-based directive would give them more control over their care. Patients completing the values history form were more likely to designate a surrogate. Patients are likely to

discuss both types of AD with family, but neither form alone is likely to lead to AD conversations with physicians.

KEY WORDS: values history; treatment-based directive; values-based directive; advance directive; advance care planning.

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Advance directives (AD) have come under scrutiny for failing to improve clinical outcomes in end-of-life care.¹⁻⁷ Among the criticisms of advance directives is that traditional treatment-based directives are difficult to interpret and apply in actual clinical situations.⁵ Some have advocated directives outlining patient values and goals to help guide surrogates and aid planning for end-of-life care.⁸⁻¹² General statements about values and goals may be more broadly applicable to different clinical scenarios than specific treatment preferences. Instead of trying to infer a patient's values from a pattern of treatment choices, surrogates may use a patient's direct statement of values to inform and guide specific treatment decisions. Although the values history has many appealing theoretical features, it is not known whether patients will find a values-based directive form to be sufficient for advance care planning. While previous studies have evaluated patient preferences for different advance directive forms, none have directly compared patient responses to specific aspects of values-based and treatment-based advance directives.¹³ We sought to assess and compare patient responses to both types of directives in the areas of ability to reflect goals for care, to enhance control, to promote communication, to result in designation of a surrogate, and to reduce emotional burden on surrogates.

METHODS

This study was conducted at 2 university-based general internal medicine practices in Pittsburgh, Pa. Patients were eligible for the study if they were age 55 or older, spoke and read English, were not demented (scored less than 9 on the Short Blessed Test for dementia), and did not have a written advance directive.¹⁴ Eligible patients who consented to participate were randomly assigned either Emanuel's Medical Directive (EMD) or Pearlman's values history (PVH) form. The EMD is a standard 7-page treatment-based advance directive form that has been well studied.^{15,16} The main body of the EMD describes 6 different clinical scenarios involving coma, dementia, terminal illness, etc. and asks the respondent to choose from a list of treatments such as CPR, dialysis, mechanical ventilation, etc. that they might want if they were in the

Received from the Division of General Internal Medicine and General Academic Pediatrics (RCK), the Division of General Internal Medicine, Section of Palliative Care and Medical Ethics (RMA, GSF), Center for Bioethics and Health Law (RCK, RMA, GSF), The Institute for Performance Improvement (RMA), and the Center for Research on Healthcare (BHH), University of Pittsburgh School of Medicine, Pittsburgh, Pa.

Address correspondence and requests for reprints to Dr. Kolarik: University of Pittsburgh Medical Center Shadyside, 5230 Centre Ave., 312 SON Bldg., Pittsburgh, PA 15232 (e-mail: kolarikrc@msx.upmc.edu).

given condition. The PVH is an 8-page form contained within a more comprehensive advance care planning document that has been formally evaluated in a randomized, controlled trial.¹⁷ The PVH provides an assessment of patient values regarding end-of-life care, and asks questions similar to those found in other values history forms.^{8,9} Typical questions from the PVH include the following: "If you were dying, how important would it be for you to avoid pain and suffering, even if it means that you might not live as long? (Not important, moderately important, very important, extremely important)" and "I believe it is acceptable to consider the financial burden of treatment on my loved ones when making health care decisions on my behalf (Yes, not sure, no)." The PVH was chosen for its comprehensiveness and for its comparable length to the EMD.

With the permission of their physicians, patients were approached for consent to participate in the study after a routine office visit. Beyond granting permission to approach their patients, physicians were not directly involved in the introduction or implementation of the study. After patients had completed the check-out process, the researcher asked consenting patients to complete the form in a private office. Patient questions were documented. The researcher's answers were brief and referred patients to relevant sections of the form for answers when possible. Patients were then asked to take the completed form home and to speak with their loved ones about it. Demographic information regarding patient age, race/ethnicity, education, income, and self-reported health status were collected from all consenting participants.

Patients were telephoned 2 to 4 weeks later and interviewed about their satisfaction with the advance directive form they filled out. After reviewing the literature on advance care planning, we compiled a list of possible goals that advance care planning should attempt to accomplish.¹⁸ The interview was designed to gather information on 8 dimensions of advance care planning, including enhancing patient control, helping to choose a surrogate, reflecting personal values and goals for care, reducing family burden, enhancing communication, promoting ongoing planning, providing education, and understandability. Patients were asked to mail back their completed advance directive in a prepaid, preaddressed envelope after the telephone interview. The Institutional Review Board of the University of Pittsburgh approved the study. Participation in the study was voluntary.

MEASURES

The length of time to complete the advance directive form and number of questions asked about the AD form in the office were recorded. The proportions of patients discussing the form with others, designating a surrogate, and returning the AD form by mail also were documented. In addition, patient ratings of telephone interview items were recorded. The telephone interview included 30 closed-ended

questions. Responses to questions were recorded in 5 ordinal Likert categories: totally agree, mostly agree, somewhat agree, agree a little, and disagree. E-mail messages were sent to all physicians of the enrolled patients 4 months after the conclusion of the study, and again 12 months later. All physicians of the enrolled patients were asked if the patient had initiated a discussion about advance directives. Patients were enrolled for a period of 12 months. The minimum interval of time from study completion to physician contact was 4 months, and the maximum was 24 months. Responses were recorded as definitely no, unsure, and yes. The e-mail system used was part of a password-protected intra-office electronic medical record system.

ANALYSIS

For comparison of measures between the 2 forms, Student's *t* test and analysis of variance were used to analyze continuous variables (age, time to complete form, and number of questions asked about the form). χ^2 tests were used to analyze categorical variables (percentages of returned AD forms, and designation of surrogate). Mann-Whitney *U* statistics were used to compare the Likert scale responses to the telephone survey. Exact calculations were used where small cell frequencies existed. Significance for all comparisons was assigned at $P < .05$. SPSS for Windows (Version 10.0; SPSS, Inc., Chicago, Ill) was used to perform statistical analysis

RESULTS

Of 278 patients approached, 3 had Short Blessed tests ≥ 9 and 69 (25%) had advance directives and were excluded. Of the remaining 206, 143 (69%) refused to participate, and 63 patients (31%) enrolled in the study (Table 1). Most patients who refused to participate cited lack of time (54%) or no interest (36%) as their reasons. Demographic characteristics of patients approached and enrolled are summarized in Table 2. The patients who enrolled in the study were younger (65.3 years) than those who refused (69.6 years) or were excluded (69.5 years) (post-hoc Tukey B, for both $P = .002$). There was a higher proportion of African Americans (48%) in the group of patients who refused to participate than in the group that

Table 1. Patient Enrollment

Patients	n	%
Approached	278	100
Excluded: had advance directive	69	25
Excluded: demented	3	1
Eligible for study	206	75
Refused	143	69*
No time	76	54
Not interested	52	36
Other	15	10
Total Enrolled	63	31*

* Percentage expressed as proportion of eligible patients.

Table 2. Demographics of Patients Approached and Enrolled

	Total Approached	Enrolled	Refused	Excluded (had AD)	Statistic
Number	275	63	143	69	
Mean age, y	68.6	65.3	69.6	69.5	$F_{2,273} = 6.6; P = .002$
Gender, %					$\chi^2_{(df=2)} = 0.5; P = .78$
Male	37	33	37	39	
Female	63	67	63	61	
Race, %					$\chi^2_{(df=4)} = 14.7; P = .005$
African American	39	36	48	23	
White	58	62	48	74	
Other	3	2	4	3	

had an advance directive (23%; $\chi^2_{(df=2)} = 13.2; P = .001$). There were no statistically significant racial differences between patients who enrolled and patients who were excluded because of prior advance directives ($\chi^2_{(df=2)} = 3.0; P = .23$). However, there was a trend toward more African Americans in the group that refused (48%) than in the group that enrolled (36%; $\chi^2_{(df=2)} = 4.5; P = .11$). There were no significant gender differences among participants and nonparticipants.

Twenty-five patients in each group completed the telephone interview (Table 3). Our overall study completion rate was 24% (50/206). The 13 patients who did not complete the telephone survey were significantly older (71.3 years) than those who completed the study (63.3 years) ($t_{(df=61)} = -3.8; P = .004$). Demographic characteristics between the EMD and PVH groups completing the telephone survey were not significantly different (Table 4).

Data regarding the AD form completion is summarized in Table 5. The time required to complete the EMD and PVH forms and the number of questions patients asked while completing the forms in the office did not differ significantly. All patients who completed the PVH form designated a surrogate decision maker, but only 79% completing the EMD form did so ($P = .02$). A majority of patients in both groups reported speaking to others about the form. There was no significant difference in the desire to have the form included in the outpatient record. A minority of responders in both groups would rather have completed the advance directive form with their doctor. Only 1 patient in each group for whom we had data initiated a discussion about advance directives with their physicians after completion of the study (Table 5).

Table 3. Patients Completing Aspects of the Study

	n	Pearlman	Emanuel
Total enrolled	63	31	32
Number completing phone interview	50	25	25
Number not completing phone interview	13	6	7
Refused		6	4
Unable to contact		0	3

Patient ratings of the telephone interview items demonstrated a generally favorable response to both forms (Table 6). When asked if the form was a good first step in planning care at the end of life, 92% of the EMD group and 84% of the PVH group totally or mostly agreed ($P = .06$). When asked if the form tells others what makes life worth living for them, 68% of EMD and 64% of PVH responders totally or mostly agreed ($P = .66$). In addition, when asked if the form would help their spokesperson to decide what treatment the patient would want if the doctors weren't sure they would recover, 80% of EMD and PVH responders totally or mostly agreed.

Both forms were thought to reduce emotional stress and burden on surrogate decision makers (EMD 83% vs PVH 64% totally or mostly agree; $P = .18$). When asked if the form made it easier to speak with family members about dying, 68% of EMD and 52% of PVH responders totally or mostly agreed ($P = .19$). When asked if the form would help decrease doubt and conflict among family members who might be making treatment decisions for them, 76% of the EMD and 64% of the PVH responders totally or mostly agreed ($P = .54$).

There were some significant differences in responses to some of the telephone interview items. When asked if the

Table 4. Demographics of Enrolled Subjects

Demographic	Emanuel (n = 32)	Pearlman (n = 31)	P Value
Mean age, y	64.6	65.3	.71
Race, %			.25
African American	31	52	
White	63	45	
Other	6	3	
Highest education level, %			.97
High school or less	50	52	
College	28	26	
Graduate school	22	22	
Health self-report, %			.53
Excellent	3	7	
Very good	22	13	
Good	50	39	
Fair	19	36	
Poor	6	7	

Table 5. Advance Directive Completion

	Emanuel	Pearlman	n (E/P)	P Value*
In office				
Time to complete AD form in office	22 min	21 min	30/27	.65
Mean number of questions asked by patient about AD form	2.4	1.8	31/28	.21
Designated surrogate decision maker on AD form	80%	100%	30/29	.02
Initiated a discussion with physician about AD—physician reports	3%	3%	23/22	1.0
Returned AD form by mail	28%	52%	32/31	.08
Phone survey				
Spoke with others about the AD form	60%	48%	25/25	.57
Wanted AD form in medical record	50%	58%	22/24	.77
Would rather have completed form with their doctor (totally or mostly agree)	32%	17%	25/24	.35

* P values are based on Student's *t* test (items 1 and 2) or Fisher's Exact Tests (items 3–8).

E, Emanuel; P, Pearlman. Numbers represent absolute numbers in each group for whom data were available.

form gives them control over the way their doctor cares for them at the end of their lives, 84% of EMD responders totally or mostly agreed, while only 48% of PVH responders did so ($P = .02$). More patients completing the EMD form worried that it would be difficult to change answers on the form if they later changed their minds (20% EMD vs 4% PVH totally or mostly agree; $P = .02$).

DISCUSSION

This comparison of patient responses to values-based and treatment-based directive forms revealed a number of interesting findings. First, a majority of patients in both groups chose to discuss advance care planning with family members, but most did not include their physician. In fact, patients seemed more interested in completing the form with the research assistant than with their doctor. Only 1 patient in each group initiated a conversation with their physician following their participation in the study. However, more than half of the participants in each group discussed them with family members or surrogates and wanted their form to be a part of the medical record. Our study design did not include direct physician involvement or attempt to facilitate contact between patients and physicians.

Other studies have shown that patients are unlikely to initiate discussions about advance directives with their health care providers.^{1,19} Our study confirms that health care providers should not expect patients to initiate conversations about advance directives. Patients will not initiate such conversations, even though they seem to want their physicians involved in advance care planning and are more satisfied when such conversations occur.^{19,20} Perhaps patients would like their physician to show interest, but do not feel that physicians are an essential part of the process of planning care at the end of life. Singer has shown that patients view end-of-life care as a personal matter, much like estate planning, to be discussed with family or lawyers rather than doctors.²¹ Alternatively, patients may not understand the potential difficulties of interpreting advance directive documents and the importance of

physician involvement. Further research may address these questions. Providing patients with an advance directive form in hopes of sparking conversation among patients and family members appears to work, regardless of the type of form used. Physicians must follow up with patients following the provision of forms, because patients may be unlikely to do so.

End-of-life decision making is most often done by family members, but the extent to which family members are actively included in discussion of advance care planning is not known. Although patients in our study seemed to prefer to discuss advance care plans with family rather than their physician, we do not know anything about the content or quality of those conversations with family. Given the importance to patients of involving family members in these discussions, health care providers should promote and mediate more intrafamilial communication when discussing advance care planning.

There did not seem to be major differences in patient preferences for a values-based or a treatment-based advance directive. We expected that patients would think a values history form would be more easily understood and would better promote communication with family, reduce likelihood of emotional burden on surrogates, and tell others what makes life worth living for them. Our presumption was that a treatment-based form would be viewed as potentially confusing without physician input and would be difficult to discuss with family members in the absence of a health care provider. Further, due to its more general nature we thought the values-based form would facilitate treatment decisions in scenarios not specifically mentioned by the advance directive form. The results of this study did not support these hypotheses. Both types of advance directives were generally viewed favorably across multiple areas. One notable difference was that patients completing the EMD form were more likely to feel that the form would give them control over the way their doctor cared for them at the end of life. The general nature of the PVH may have led patients to question whether their specific treatment preferences would be followed. It is interesting to note, however, that while the PVH form was

Table 6. Telephone Survey Results—Percentage Responding That They Totally or Mostly Agree

	EMD*, %	PVH*, %	n	P Value*
Values				
This form describes how I want to be treated when I am terminally ill.	84	72	50	.93
This form tells others what makes life worth living for me.	68	64	50	.66
Someone reading my answers on this form would know what kind of person I am.	52	48	50	.55
There is not enough information on this form for others to know how I want to be treated at the end of my life.	40	12	50	.80
Education				
After reading this form, I know more about decisions that may have to be made at the end of my life.	76	68	50	.79
This form taught me about ways to keep me comfortable when I am dying.	56	33	49	.15
After reading this form, I understand more about the medical care I might get if I become very sick.	72	56	50	.32
Control				
This form will help me to choose how I would like to die.	76	44	50	.08
This form will help me to choose where I would like to die.	68	41	49	.06
This form gives me control over the way my doctor will care for me at the end of my life.	84	48	50	.02
Access				
If I become seriously ill, the information on this form would be easy for my doctor to obtain.	83	83	47	.24
This form lets my doctor know who my spokesperson is.	96	80	49	.42
Outpatient				
This form made me uncomfortable to think about dying right now.	28	16	50	.77
After filling out this form, it will be easier for me to discuss treatment choices with my doctor when I get sick.	80	60	50	.11
I don't think that I should have to make these decisions right now.	20	24	.50	.30
Ongoing process				
I worry that if I change my mind, it would be hard to change my answers on the form.	20	4	48	.02
Completing this form is a good first step in planning my care at the end of life.	92	84	50	.06
I think that I might change my mind about my answers on this form if I were to become seriously ill.	8	20	50	.24
Ease of implementation				
This form would help my spokesperson to decide what treatment I would want if the doctors weren't sure I would get better.	80	80	50	.32
My spokesperson would not be able to figure out what kind of care I would want in medical situations that are not specifically mentioned on this form.	20	17	49	.82
The information contained on this form is too specific. It would be difficult to apply my answers to medical situations not covered by the form.	17	12	49	.27
The information contained on this form is too general. Specific treatment decisions based on this form would be difficult for others to make with confidence.	24	8	50	.20
Surrogate				
This form helped me to select a spokesperson that would be willing to make treatment decisions for me if I am unable to.	80	64	50	.36
This form helped me to choose the best person to speak for me if I cannot speak for myself.	68	68	50	.85
Burden on family				
This form takes my family's emotions and needs into consideration.	64	74	48	.84
When my chances for recovery are unknown, this form will lessen the emotional stress on my family members or spokesperson making difficult medical decisions for me.	83	64	49	.18
This form will help decrease doubt and conflict among my family members who may be making treatment decisions for me.	76	64	50	.54
Enhancing communication				
This form made it easy for me to speak with my family members about dying.	68	52	50	.19
This form will make it easy for me to talk with my doctor about my personal values and goals for end of life care.	80	68	50	.30
Because of this form, I spoke with my family members about what I want at the end of my life.	56	40	50	.35

* Baseline on Mann-Whitney U Statistics.

EMD, Emanuel's Medical Directive; PVH, Pearlman's values history.

less likely to give patients a sense of control, 80% of patients in both groups strongly agreed that the forms would help their spokespeople decide what treatments they would want. Statements of values may provide decision-makers with a framework of goals through which to approach complex and specific treatment decisions for patients. Our study did not examine physician or surrogate attitudes toward the values history, nor did we examine the application of a values history form in end-of-life decisions. These are areas for further empirical research.

Patients completing the EMD were significantly more likely to worry that it would be hard to change their answers on the form if they changed their minds than were those completing the PVH. Specific treatment decisions may be viewed as potentially more binding than general statements of values. Despite these concerns, the EMD group was no more likely than the PVH group to think they would change their minds about their answers if they became seriously ill.

Also of interest was that more patients using the PVH form designated a surrogate decision maker than did those using the EMD form. The most likely reason for this finding is that the PVH form asks for the name of a surrogate on the first page in clearly demarcated boxes. The EMD form asks for the surrogate on the last page, where numerous other signatures are required. If a physician's main goal in providing a patient with an advance directive form is to help them designate a surrogate, it is desirable to use a form that asks for the surrogate's name in a clearly demarcated space on the first page of the document.

Our study had several limitations. The initial patient enrollment rate (31%) was low. We decided to recruit patients at the end of an office visit after checking out in order not to disrupt patient flow in the 2 clinic sites. Over half of the patients who refused cited "No time" as the reason for refusal. Our study completion rate was 24%. These results are similar to rates of advance directive completion in other studies, which have varied from 15% to 23%.²²⁻²⁵ As shown in other studies, this low number may reflect a fundamental difficulty in encouraging people to discuss advance care planning and to complete advance directive forms.

Our relatively small sample size was also a limitation of our study. On the basis of the 60 (± 2) participants that completed the AD in the physician's office, we could detect differences in percentages of 35 percentage points (at a base percentage of 60%) with 2-tailed $\alpha = .05$, $\beta = .20$. For the 50 who completed the telephone survey, median differences of 1 point on the 5-point Likert ratings were detectable at 61% power. Given median differences of ~ 1 point on the Likert scales, we needed 40 to 42 (based on the baseline percentage) observations per group to detect this difference. A number of the questionnaire items shown in Table 6 approached significance, and a larger sample size might have been able to detect smaller differences between the groups.

Table 5 includes some data from patients who did not complete the study. Data from patients who did not

complete the study included factors unlikely to be influenced by ultimate study completion, such as length of time to complete the form, number of questions asked, and designation of a surrogate. The proportion of forms returned by mail could potentially have been influenced by study completion. When analyzed separately, however, there were no significant differences when noncompleting patients were excluded from the analysis in all of these areas.

Another limitation is that we did not ask patients to compare directly the 2 forms. Given the opportunity to examine both forms, patients might have reached somewhat different conclusions about them. However, the time required to evaluate 2 separate forms seemed prohibitive. One element of our study design that might limit the applicability of our results is that the researcher did not engage the patient in conversation about his/her treatment choices. In practice, health care providers may want to discuss forms with patients as they complete them in the office. Our goal was to compare patient responses to the forms as a stimulus for further conversation with family and physicians, not to evaluate the quality of the conversation with the researcher.

The results of our effort to identify patient-initiated conversations with physicians were also subject to some important limitations. Physician report of patients initiating a conversation about advance directives is subject to recall bias, particularly since the maximum time interval from initial patient enrollment to last e-mail contact was 24 months. The reason for the 4- and 12-month follow-up intervals was to leave enough time for patients to have a return visit before contacting physicians about the presence of a conversation. Despite the lengthy interval, for only 2 patients was the physician "unsure" about the presence of a conversation about AD. The "unsure" responses were not counted as evidence of a prior conversation. Finally, we did not attempt to measure surrogate understanding of the completed forms. Although patients were generally satisfied with both forms, surrogates might not have shared the same level of comfort or satisfaction with the forms.

CONCLUSION

Advance care planning is still underutilized in the ambulatory setting. One element of advance care planning is the provision of a written form, such as an advance directive. Various types of advance directive forms given to patients in an outpatient setting are likely to spark conversations with family members within 2 weeks. Without further intervention, however, patients are unlikely to initiate further conversation with their physicians. Close follow-up after provision of an advance directive form may provide a useful opportunity for health care providers to discuss advance care plans with patients and families. Surrogate designation should be in a clearly marked space on an advance directive form.

Patients do not demonstrate a clear preference for either a treatment-based or a values-based advance

directive form. Patients perceive that a treatment-based form will give them more control over their care at the end of life, but express concern that it may be difficult to change their minds about explicit treatment preferences. Discussion of advance directives with patients perhaps ought to include both treatment preferences and the values underlying those preferences. The extent to which a values history may provide guidance to family and health care providers when a treatment-based directive is limited in its application is not known and is an area for future research.

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REFERENCES

1. The Support Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients: the study to understand prognoses and preferences of outcomes and risks of treatments (SUPPORT). *JAMA*. 1995;274:1591-8.
2. Teno JM, Licks S, Lynn J, et al. Do advance directives provide instructions that direct care? SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment. *J Am Geriatr Soc*. 1997;45:508-12.
3. Teno J, Lynn J, Wenger N, et al. Advance directives for seriously ill hospitalized patients: effectiveness with the patient self-determination act and the SUPPORT intervention. *J Am Geriatr Soc*. 1997;45:500-7.
4. Teno JM, Stevens M, Spornak S, Lynn J. Role of written advance directives in decision-making: insights from qualitative and quantitative data. *J Gen Intern Med*. 1998;13:439-46.
5. Brett AS. Limitations of listing specific medical interventions in advance directives. *JAMA*. 1991;266:825-8.
6. Hanson LC, Tulskey JA, Danis M. Can clinical interventions change care at the end of life? *Ann Intern Med*. 1997;126:381-88.
7. Danis M, Southerland LI, Garrett JM, et al. A prospective study of advance directives for life-sustaining care. *N Engl J Med*. 1991;324:882-8.
8. Doukas DJ, McCullough LB. The values history. The evaluation of the patient's values and advance directives. *J Fam Pract*. 1991;32:145-53.
9. Doukas DJ, Gorenflo DW. Analyzing the values history: an evaluation of patient medical values and advance directives. *J Clin Ethics*. 1993;4:41-5.
10. Mold JW, Looney SW, Viviani NJ, Quiggins PA. Predicting the health-related values and preferences of geriatric patients. *J Fam Pract*. 1994;39:461-7.
11. Fischer GS, Alpert HR, Stoeckle JD, Emanuel LL. Can goals of care be used to predict intervention preferences in an advance directive? *Arch Intern Med*. 1997;157:801-7.
12. Teno JM, Lynn J. Putting advance-care planning into action. *J Clin Ethics*. 1996;7:205-13.
13. Reinders M, Singer PA. Which advance directive do patients prefer? *J Gen Intern Med*. 1994;9:49-51.
14. Heun R, Papassotiropoulos A, Jennssen F. The validity of psychometric instruments for detection of dementia in the elderly general population. *Int J Geriatr Psychiatry*. 1998;13:368-80.
15. Emanuel LL, Emanuel EJ. The medical directive: a new comprehensive advance care document. *JAMA*. 1989;261:3288-93.
16. Emanuel LL, Barry MJ, Stoeckle JD, Ettelson LM, Emanuel EJ. Advance directives for medical care—a case for greater use. *New Engl J Med*. 1991;324:889-95.
17. Pearlman R, Starks H, Cain K, Rosengren D, Patrick D. *Your Life, Your Choices—Planning for Future Medical Decisions: How to Prepare a Personalized Living Will*. Springfield, Va: U.S. Department of Commerce; 1998. National Technical Information Service PB#98159437.
18. Kolarik RC, Arnold RM, Fischer GS, Tulskey JA. Clarifying objectives for advance care planning. *J Palliat Med*. In press.
19. Edinger W, Smucker DR. Outpatients' attitudes regarding advance directives. *J Fam Pract*. 1992;35:650-3.
20. Tierney WM, Dexter PR, Gramelspacher GP, Perkins AJ, Zhou XH, Wolinsky FD. The effect of discussions about advance directives on patients' satisfaction with primary care. *J Gen Intern Med*. 2001;16:32-40.
21. Singer PA, Martin DK, Lavery JV, Thiel EC, Kelner M, Mendelsohn DC. Reconceptualizing advance care planning from the patient's perspective. *Arch Intern Med*. 1998;158:879-84.
22. Sachs GA, Stocking CB, Miles SH. Empowerment of the older patient. A randomized, controlled trial to increase discussion and use of advance directives. *J Am Geriatr Soc*. 1992;40:269-73.
23. Reily BM, Wagner W, Ross J, Magnussen CR, Papa L, Ash J. Promoting completion of health care proxies following hospitalization. *Arch Intern Med*. 1995;155:2202-6.
24. Rubin SM, Strull WM, Fialkow MF, Weiss SJ, Lo B. Increasing the completion of the durable power of attorney for health care—a randomized, controlled trial. *JAMA*. 1994;271:209-12.
25. Meier DE, Fuss BR, O'Rourke D, Baskin SA, Lewis M, Morrison S. Marked improvement in recognition and improvement of health care proxies—a randomized controlled trial of counseling by hospital patient representatives. *Arch Intern Med*. 1996;156:1227-32.