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A Randomized, Controlled Trial of Advance Care Planning Discussions during Preoperative Evaluations

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Background: **Although many patients and physicians support the concept of advance care planning, only a small percentage of patients actually have the necessary discussion with health care providers. Hospital-based physicians other than primary care providers often are needed to increase physician, patient, and proxy communication about advanced directives. This study evaluated the effectiveness of a 5–10-min discussion designed to foster dialogue between patients and their proxies in a preoperative evaluation clinic. The discussions were lead by anesthesiologists.**

Methods: **A randomized controlled trial was conducted from September 1998 through May 1999 in a preoperative evaluation clinic at University of California, San Francisco, a tertiary care center. English-speaking patients aged 65 yr or older who were scheduled for elective surgery were randomized to receive a short information session stressing the importance of communication about end-of-life care between the patients and their proxies. Patients randomized to the control group received the standard preoperative anesthesia screening. An admitting counselor questioned all patients (control and intervention) about whether they have an advanced directive as part of the registration process before their arrival in clinic.**

Results: **The intervention significantly increased discussions about end-of-life care between patients and their proxies. Eighty seven percent of patients reported having discussions with their proxies as compared with only 66% of control patients ($P = 0.001$). The intervention also increased durable power of attorney completion rate to 27% as compared with 10% completion rate by controls.**

Conclusions: **The preoperative evaluation period can be an opportunity to encourage patient and proxy communication about end-of-life care.**

THE federal Patient Self-Determination Act implemented on December 1, 1991, requires all health care facilities receiving Medicare and Medicaid reimbursement to recognize the living will and durable power of attorney for health care (DPOA) as advance directives, to inquire whether patients have such documents, and to educate the community. Although, 90% of patients and physicians support the concept of advance directives, only 5–15% of patients actually complete these documents.[1] Previous investigations have demonstrated problems regarding interventions attempting to increase the number of written advance directives.[2–5] The success of these studies varied depending on the type of intervention, the health status of the patient, and the training of the person conducting the discussions. More importantly, completed advance directives by themselves do not necessarily reflect enhanced family member or physician awareness of patient preferences.[6] Physicians and family members know the patients' actual wishes only half the time.[7–9] Therefore, it is clear that emphasizing paperwork completion should not be the only goal. Rather, emphasizing "a process of communication that ensures that clinical care is shaped by patient preferences when the patient is unable to participate in decision-making"[10] or "advance care planning" should be the next route of improvement.

Many investigations have shown that, although patients may be knowledgeable about and interested in advance directives, they believe that the physicians should initiate the discussions.[11] There have been multiple investigations examining discussion and completion of advanced directives between patients and their primary care physicians.[12] Ambulatory counseling of advance directives has been suggested as the preferred setting,[13] but there is evidence that inpatient discussions are equally as effective and do not distress patients.[14,15] These results suggest that physicians other than primary care providers and other settings may also be needed to improve physician, patient, and proxy communication about advanced directives.

Increasingly, preoperative clinics are being used because they have been shown to decrease hospitalizations and same-day operating room cancellations.[16] The object of this investigation was to evaluate the feasibility of a short (5–10-min) discussion designed to foster dialogue between patients and their proxies facilitated by anesthesiologists.

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Materials and Methods

Patient Population

The University of California, San Francisco, Committee on Human Research approved all study procedures. Pa-

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tient recruitment occurred when a participating anesthesiologist (J.P.W., L.L., T.J., T.E.S.) was working in the clinic to assure consistency. Subjects were identified from an anesthesia preoperative evaluation clinic (PREPARE) at Moffitt/Long Hospital, a tertiary care hospital associated with the University of California, San Francisco. When a participating anesthesiologist was in clinic, all patients that day who were aged 65 years or older and who were scheduled to have surgery that required at least an overnight hospital stay were screened. Eligible patients were approached after completing registration paperwork and their interview with the admissions counselor and on their arrival in the PREPARE clinic. Patients who did not speak or write English were excluded, and patients that were from one orthopedic surgeon's practice were excluded by his request. Recruitment and consent to participate in the study was obtained by one of the investigators (D.G.). Patients were told that they would be asked *via* a questionnaire their views and experiences regarding living wills or durable powers of attorney, and that one group would participate in a short discussion about end-of-life planning. They were also told that study investigators would ask them to complete a follow-up questionnaire while they were in the hospital and that agreement to participate or not would in no way affect their hospital care. After consenting to participate, patients underwent the Pfeiffer Mental Status Examination before randomization. Patients who made more than two errors on the examination were excluded.

Randomization

Randomization was conducted using a random number table. Group assignments were placed in opaque envelopes that were opened by the participating anesthesiologist before entering the patient's examination room. The investigator doing the recruitment (D.G.) was blinded to patient assignment, although the anesthesiologist participating in the investigation and the patient could not be blinded.

The Questionnaire

Questions about advance care planning discussions, quality of communication, and treatment preferences were developed and tested previously.[17,18] All questions were pretested on three patients. A few revisions occurred, primarily in the demographic questions, before the final standardized questions were chosen for the study. Patients completed the SF-36 Health Survey[19] as well as questions aimed to evaluate their previous experiences with end-of-life discussions and demographic information, including sex, age, race, education, and income. Patients were contacted postoperatively in the hospital by an investigator (D.G.) who asked them to complete the survey again. They were given the survey when patients appeared awake enough to read the questions and when they were able to show orientation to person, place, and date. Patients, who were to be discharged before completion of their survey were given self-addressed, stamped envelopes. Nonresponders were contacted by phone and encouraged to return the survey. At the conclusion of the study, we reviewed the medical records of patients who refused to participate in the intervention as well as those enrolled. Data collected included the patient's American Society of Anesthesiologists physical status (ASA PS) assignment, the number of surgeries, intensive care unit admissions, and hospital admissions, whether they had a signed copy of a DPOA in the hospital chart, and whether they died.

Control Group

Patients randomized to the control group received the standard preoperative screening and counseling during their visit with one of the same four anesthesiologists. No counseling from the anesthesiologist was provided about advance directives or advance care planning unless requested by the patient, but no patient requested such counseling. In the admissions office before their arrival into the PREPARE clinic, an admitting counselor questioned all patients (control and intervention) about whether they had an advanced directive as part of the registration process. The patients were then asked whether they would like further information and a copy of a DPOA if they did not have one already. Interested patients were given a brochure describing their rights to make decisions about medical treatment and the appropriate paperwork to designate a DPOA.

Intervention Group

Patients randomized to the intervention group received a short, 5–10-min, information session with one of four anesthesiologists during their clinic visit. The anesthesiologists were given guidelines in the form of a one-page script (Appendix). The main points and goals of the intervention were also discussed among the participating anesthesiologists before the initiation of the study. The discussion with patients was designed to focus on the importance of communication between the patients and their designated proxies regarding end-of-life care. Examples regarding cardiopulmonary resuscitation and mechanical ventilation were offered, but the emphasis of the intervention was to have the patient talk to their proxy about their wishes if they could no longer communicate. All patients were given copies of the California DPOA form, shown how to complete the form, and reminded to bring the completed form on the day of surgery. All of the patients' and families' questions were answered, and the discussion was prolonged if the patient and/or family continued to have questions. None of the patients had a previous association with the anesthesiologist performing the preoperative evaluation or initiating the advance directive discus-

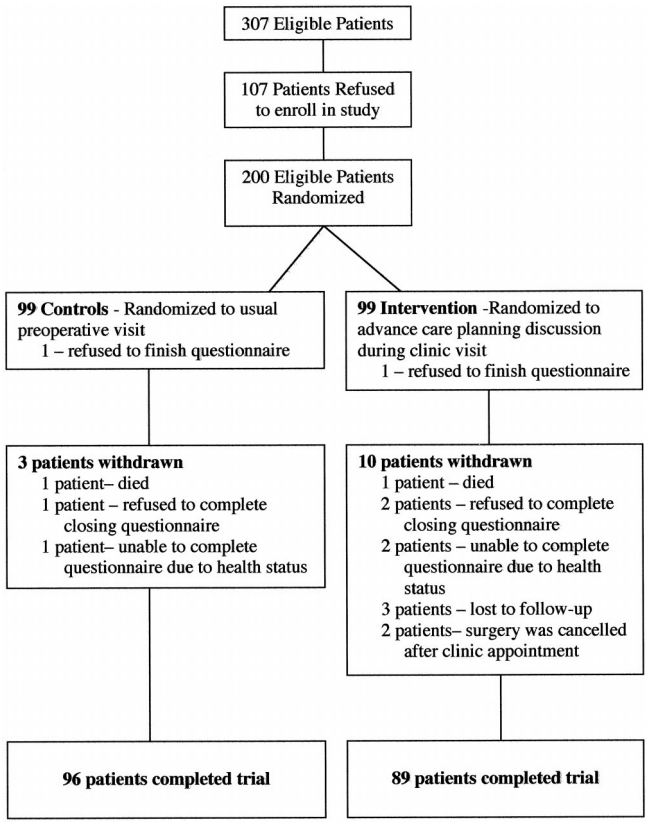

Fig. 1. Progress of patients throughout a study evaluating a preoperative intervention to increase discussion about advance care planning.

sion. In addition to the above intervention, patients received the standard preoperative screening and counseling during the visit with the anesthesiologist as well as the usual registration paperwork with the admitting counselor.

Statistical Analysis

Sample size calculations required 198 patients to determine an increase in completion of DPOAs from 10 to 25% with a power of 80% (two-tailed $\alpha = 0.05$). Comparisons between categoric variables were made with chi-square analysis or the Fisher exact test, and comparisons between ages were made with the Wilcoxon rank sum test.

Results

Three hundred seven patients were approached so as to obtain a sample population of 200 patients between September 1998 and May 1999 (fig. 1). Demographics of the control and intervention groups are listed in table 1. Sixty-two percent of the control patients and 57% of the intervention patients were men. Most of the patients were white, and most had a high school diploma or higher level of education. Both control and intervention groups had similar scores on the physical component scale and mental component scale of the SF-36 health survey. No patients were excluded because of inability to pass the Pfeiffer Mental Status Examination.

Table 1. Demographic Characteristics of Patients Participating in a Study of a Preoperative Intervention to Increase Discussion about Advance Care Planning

	Control (n = 100)	Intervention (n = 100)
Age	72.3 ± 5.8	73.3 ± 5.5
Sex		
Men [n (%)]	62 (62%)	57 (57%)
Women [n (%)]	38 (38%)	43 (43%)
Race		
White	88	89
Black	1	3
Hispanic	3	3
Asian	8	4
Other	4	0
Education		
No formal education	0	2
Grade school	2	2
Some high school	1	11
High school diploma	20	20
Some college	24	23
College diploma	16	20
Professional or graduate school	36	20
Income		
≤ 25,000	12	15
25,001–50,000	23	26
50,001–100,000	26	21
> 100,000	19	12
Do not know	6	11
Refused	13	13
Score on SF-36 health survey		
Physical component scale (norm for US population = 43.3)	40.0 ± 10.9	39.6 ± 12.2
Mental component scale (norm for US population = 52.7)	50.6 ± 9.9	53.4 ± 10.2

The patients who refused to participate (refusal group) were slightly but statistically significantly older ($P = 0.006$). There were also significantly more women in the refusal group than among those who agreed to participate ($P = 0.04$). However, the overall severity of illness, as documented by the ASA PS assignments, were equal between those who refused and those who participated in the investigation (table 2). Patients most often refused because they did not want to "spend the time filling out more paperwork" (43%) or "participate in more studies" (28%). Two percent of the patients refused because of the nature of the intervention, and the remaining 27% of the patients did not state a reason for refusal to participate.

Data from the patients' charts was obtained for 99 of the 107 patients in the refusal group, 98 of the 100 control patients, and 97 of the 100 patients who received the intervention. There were only a small number of deaths and intensive care unit admissions, which was not significantly different between the groups. There were however, significantly fewer second surgeries in the control group as compared with the number of these

Table 2. Differences between Refusal and Study Group for Patients Eligible To Enroll in a Study To Increase Discussion about Advance Care Planning Preoperatively

	Refusal (n = 107)	Study Group (n = 200)	*P*
Age	74.7 ± 6.2	72.8 ± 5.7	0.006
Sex	57 (53% women)	81 (41% women)	0.04
ASA	n = 98	n = 191	
I	0	4 (2%)	
II	34 (35%)	86 (45%)	
III	57 (58%)	93 (49%)	
IV	7 (7%)	8 (4%)	0.1

ASA = American Society of Anesthesiologists (physical status).

surgeries in the refusal group (seven patients *vs.* 17 patients, $P = 0.05$; table 3).

Eight percent of the refusal group patients had DPOAs in their charts, similar to 9% of the control group and 11% of the intervention group. However, at the time of the follow-up interview, 16 additional patients in the intervention group had written new DPOAs compared with two additional patients in the control group ($P = 0.0003$). In addition, the number of hospital readmissions were significantly lower in the intervention group as compared with the control group (3 *vs.* 11 patients, $P = 0.05$; table 3).

Ninety-nine of 100 patients in both the control and intervention groups completed the surveys preoperatively (table 4). Postoperatively, we obtained 96 surveys from the control group and 89 surveys from the intervention group. There was one death in each group, and three patients were never healthy enough postoperatively to complete their surveys. The results of the preoperative surveys document that 70% of both groups of patients had specific wishes or plans about the type of medical treatment that they would or would not want, but only 25% had talked to a doctor about their wishes. Forty percent of those who had not spoken to a doctor stated a desire to have such a conversation. Eighty percent of both groups of the patients stated that they knew about DPOAs. Postoperatively, this percentage significantly increased to 98% in the patients in the intervention group ($P = 0.02$), whereas the percentage of patients in the control group did not significantly change.

Postoperatively, 64% of the control patients recalled that someone had spoken to them about a DPOA. In contrast, 85% of the intervention group (76/89; $P = 0.004$) recalled their intervention as a discussion including the subject of DPOA. In assessing the change from a "no" answer to a "yes" answer on survey questions answered both preoperatively and postoperatively, 5 of 35 patients in the control group (14%) *versus* 13 of 23 patients in the intervention group (70%) answered "yes" when asked whether anyone had spoken to them about DPOAs ($P < 0.0001$). Five patients in each group changed their answers from "yes" to "no."

Postoperatively, the patients in the intervention group increased their reported discussions with their proxies from a baseline of 66% to 87% ($P = 0.001$). Only 8 of 36 patients (22%) in the control group who initially answered "no" acknowledged having had discussions with their proxies on the postoperative survey, whereas 15 of 26 patients (58%) without a preoperative discussion ($P = 0.007$) in the intervention group answered that they had discussions with their proxies on the postoperative survey. Four patients in the control group and one patient in the intervention group changed their answers from "yes" to "no."

Table 5 documents that the majority of the patients in both groups rated the quality of communication with their doctors or proxies about end-of-life discussion as good, excellent, or the very best. There were no significant changes in these ratings associated with the intervention.

Discussion

Advance care planning is the process of "reflection, discussion, and communication of treatment preferences for end-of-life care that precedes and may lead to an advance directive."[5] Although advance care planning

Table 3. Chart-based Outcomes of Refusal and Study Group Patients in a Study of a Preoperative Intervention To Increase Discussions about Advance Care Planning

		Refusals (n = 99)	Control (n = 98)	*P* Value: Refusals *versus* Control	Intervention (n = 97)	*P* Value: Control *versus* Intervention
Death		1	1		1	
ICU		25	28		24	
	Patients with previous DPOAs	2			1	
	Patients with no DPOAs	26			19	
	Patients with new DPOAs	0			4	
Second surgery		17	7	0.05	6	
Readmission to hospital		20	11	0.11	3	0.05
Previous DPOA		8 (8%)	9 (9%)		11 (11%)	
New DPOA		2 (2%)	2 (2%)		16 (16%)	0.0003
Total DPOA		10 (10%)	11 (11%)		27 (27%)	0.004

ICU = intensive care unit; DPOA = durable power of attorney.

Table 4. Proxy Completion and Recognition among Patients Receiving a Preoperative Intervention To Increase Advance Care Planning Discussion and Control Patients

	Preoperative		Postoperative			
	Control (n = 99) [n (%)]	Intervention (n = 99) [n (%)]	Control (n = 96) [n (%)]	Intervention (n = 89) [n (%)]	*P* Value	*P* Value (Change from No to Yes, or Yes to No)
1. Do you have specific wishes or plans about the types of medical treatment that you would or would not want?	63 (64)	70 (71)	74 (77)	75 (84)		
Change from no to yes			16/34 (47)	16/26 (62)		0.31
Change from yes to no			3/62 (5)	4/63 (6)		1.0
2. Have you talked to your doctor about these wishes?	16 (16)	25 (25)	25 (26)	31 (35)		
Change from no to yes			10/80 (12)	12/65 (18)		0.36
Change from yes to no			1/16 (6)	5/24 (21)		0.37
3. If no, would you like to talk with your doctor about these wishes?	39 (39/83 = 47%)	28 (28/74 = 38%)	28 (28/71 = 39%)	24 (24/58 = 41%)		
4. Do you have a signed Living Will or Durable Power of Attorney?	58 (59)	55 (56)	57 (59)	63 (71)		
Change from no to yes			5/40 (13)	11/37 (30)		0.09
Change from yes to no			4/56 (7)	0/52 (0)		0.12
5. Has anyone talked to you about a Living Will or Durable Power of Attorney for health care?	62 (63)	71 (72)	61 (64)	76 (85)	0.004	
Change from no to yes			5/35 (14)	16/23 (70)		< 0.0001
Change from yes to no			5/61 (10)	5/65 (8)		1.0
6. Have you discussed with your doctor, in a face-to-face discussion, the kind of treatments you would want if you got too sick to speak for yourself?	13 (13)	18 (18)	21 (22)	17 (19)		
Change from no to yes			11/84 (13)	9/75 (12)		1.0
Change from yes to no			3/12 (25)	7/14 (50)		0.25
7. Have you discussed with a family member or loved one, in a face-to-face discussion, the kinds of treatment you would want if you got too sick to speak for yourself?	60 (61)	69 (70)	63 (66)	77 (87)	0.001	
Change from no to yes			8/36 (22)	15/26 (58)		0.007
Change from yes to no			4/59 (7)	1/63 (2)		0.20

may cause distress for some patients, studies show that most discussions lead to feelings that the physicians understand the patients' wishes and help to facilitate future discussions.[20] Previous studies have shown that clinician counseling, interventions after hospitalizations,[21] and face-to-face education[22] are the preferred methods of initiating advance care planning.

Because of the emphasis on cost-containment, the creation of the preoperative evaluation clinic has become popular. In this study, we used such a clinic as an opportunity for advance care planning discussions, because having these talks before a life-changing event such as surgery could enhance recognition and importance of advance care planning and communication with family or significant others.

The preoperative intervention significantly increased discussions between patients and their proxies. Twenty-two percent of control patients who had not had a previous discussion reported having discussions perioperatively with their proxies, perhaps because they were undergoing surgery. This "baseline" discussion rate can be compared with that which occurred in the intervention patients, where 58% patients discussed advanced directives with their proxies. Thus, the intervention led to a statistically and clinically significant increase in discussions regarding advanced directives.

Table 5. Patients' Ratings of the Quality of Discussion about Advance Directives before and after Surgery

	Preoperative		Postoperative	
	Control (n = 99) [n (%)]	Intervention (n = 99) [n (%)]	Control (n = 96) [n (%)]	Intervention (n = 89) [n (%)]
How would you rate the quality of discussion you've had with your doctor. . .?				
Poor/Fair	3 (3)	2 (2)	4 (4)	3 (3)
Good/Very Good	8 (8)	15 (15)	13 (13)	12 (13)
Excellent/Very Best	5 (5)	6 (6)	7 (7)	7 (8)
How would you rate the quality of discussion you've had with your proxy. . .?				
Poor/Fair	9 (9)	11 (11)	10 (10)	7 (8)
Good/Very Good	28 (28)	34 (34)	37 (39)	41 (46)
Excellent/Very Best	29 (29)	31 (31)	22 (23)	30 (34)

To our knowledge, this is the first study that has examined advance care planning discussions by physicians that are not part of the patient's primary care team. The results of this investigation suggest that the preoperative evaluation offers an opportunity to increase patient communication regarding advanced directives and that these discussions can be held with physicians who have limited relationships with the patients, yet have expertise and training in the intensive care unit. Often the patient's family or proxies accompanied the patient so that the discussion could be held with significant others, while the patient was still capable of communicating. Similar discussions are held in the intensive care unit; however, these discussions are often too late because the patients are frequently too ill to participate.[23]

This study documented a 10% DPOA completion rate by the control group, as assessed by documenting the completed paperwork in the chart. These percentages are similar to other studies, where only 10–15% of patients actually had an advanced directive present in their medical records.[11,24] The success rates of interventions designed to increase paperwork completion have led to a 15–60% completion rate, depending on study design.[25–27] This short preoperative intervention had comparable results with a 27% DPOA completion rate in the intervention group.

The increased number of second surgeries in the refusal group compared with the control and intervention groups is difficult to explain. This difference does not appear to be a result of significant differences in severity of illness between the refusal group and the patients enrolled in the investigation. Although they were significantly older (74.7 ± 6.2 yr *vs.* 72.8 ± 5.7 yr), the patients in the refusal group were not significantly sicker as assessed by their ASA PS ratings. Perioperative mortality and morbidity is better predicted by comorbidities than age alone, and the ASA PS has been found to be one of the better predictors of postoperative complications because of its basis on other coexisting diseases.[28,29] It is possible that patients refusing participation may have a higher level of severity of illness that was not captured by the ASA PS ratings or they may differ in other ways that influence second surgeries.

Two patients had their surgeries cancelled after their preoperative clinic appointment. One procedure was cancelled because of the surgeon's judgment that the procedure was not indicated, while the reason for the cancellation of the second patient is unknown. The difference between the intervention and control groups was not significant, but the study was not powered to detect such a small difference. Therefore, no definitive conclusions can be made regarding whether this difference is a reflection of the discussions initiated in clinic.

The groups were also similar in the number of intensive care unit admissions and deaths, although significantly fewer intervention patients were readmitted to the hospital. One possible explanation is that the advance care planning intervention resulted in decisions to forego readmission. However, our study was not designed to investigate postoperative outcome, and the reason for the difference between hospital readmissions and surgeries between the three groups is unclear. These results need further investigation.

A small number of patients changed their answers from "yes" to "no" on preoperative to postoperative questionnaire for questions such as "Do you have a living will?" and "Have you talked to your doctor about end-of-life care?" Although it is possible that such changes are real, it is more likely that this is evidence of some "noise" in our instrument. The reasons for this type of answer change are unclear but perhaps could be attributed to patients misreading the question or lack of clarity about who they consider as their doctor (primary care giver, surgeon, anesthesiologist, or other consultant). In addition, some part of the process, the intervening time, or the intervention could have clarified a misunderstanding that they had about terminology previously. However, the number of patients with these changes was small, and none of these changes were statistically significant between control and intervention groups.

There are several limitations to this study. First, our sample population came from a tertiary care teaching

hospital in an urban setting, and we investigated elderly patients, aged 65 years or older, because this age group is increasingly having surgery, and the issue of advance directives is important in an older, possibly sicker population. Therefore, our results reflect a particular patient population, and the ability to generalize this intervention among younger surgical patients will require further study. Second, because of the need to complete the questionnaire, we limited the study group to those who spoke English. The applicability of these findings to non–English-speaking patients is unknown. Third, all eligible patients were unable to be screened because of the desire to limit the number of participating anesthesiologists to those already trained to the study protocol. Although the PREPARE clinic staff does not schedule specific patients on particular days and the participating anesthesiologists do not work on specific days, we cannot rule out a selection bias. Finally, although we were able to document an increase in the completion of DPOAs and an increase in the reported discussions between patient and proxy, the study was not designed to test whether there was increased proxy understanding of the patient's wishes. Studies designed to test proxy understanding with hypothetical cases or when actual end-of-life issues arise will be necessary.

The majority of elderly, preoperative patients have specific wishes about the types of medical treatment that they want, and they understand that a living will or DPOA can be useful. However, many of these patients have not had discussions with their primary care physicians, their surgeons or their proxies to express these wishes, nor have they completed a DPOA. Knowledge of advanced directives and treatment preferences becomes crucial when perioperative outcome is not optimal and when prolonged life support is required postoperatively. The anesthesia preoperative evaluation can be another opportunity to encourage patient and proxy communication about end-of-life care.

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Appendix: Sample of Script that Was Used for Advanced Planning Discussions Held in an Anesthesia Preoperative Clinic

We are glad that you have decided to participate in our study. I'm going to talk with you about advance directives. If you have any questions while I'm talking, please interrupt me and ask. Also, I will ask you what questions or comments you have at the end.

The purpose of completing a durable power for health care or a living will is to let the doctors who take care of you and the doctors in the intensive care unit know your wishes in case you are no longer able to speak for yourself at some point.

The durable power of attorney lets you designate a person who would speak for you in the event that you could not speak for yourself. More than one person can be involved. It would be important for you and your designated decision-maker to sit down and have a long

discussion so that he/she understands your point of view and could make the decision for you in the way you would want them to make it. Some studies have shown that by choosing a durable power of attorney and not having these discussions, the chosen person can only guess at your wishes and is right only 50% of the time.

I am telling you all of this because I think all patients undergoing surgery should consider these issues. Unfortunately, these important discussions are often not held before it is too late.

I would like to explain two kinds of treatments that people often discuss in living wills or with their durable power of attorney. I find that patients and families often do not fully understand these treatments or what the medical words mean. The first treatment, cardiopulmonary resuscitation, or CPR, is the act of pushing on the chest to provide a means of circulating blood when the heart stops for whatever reason. Some studies state that older patients have a 10% chance of surviving to leave the hospital after CPR. Older patients with other serious medical problems may have less than a 5% chance of surviving to leave the hospital after CPR.

The second treatment, mechanical ventilation, means being connected through a tube in your throat to a machine that does the breathing for you. Your doctors would work to ensure that you are comfortable, but you would not be able to talk or eat. This therapy involves being in the intensive care unit. The time that is spent on the breathing machine and the ability to be removed from the breathing machine depends on the underlying medical problems.

It is helpful to talk with your durable power of attorney or family members about whether you think you would want these treatments in your current health and what circumstances that you can imagine when you might not want these kinds of treatments. For example, some people say that they would not want these treatments if they were in a permanent coma where they were not aware of their surroundings at all and were not able to speak and were not likely to get better.

My goal in talking with you today is to simply provide some information and answer whatever questions you and your family have regarding living wills and durable power of attorneys. I would like to say again that I have not picked you out because I think you need to have this discussion more than other patients. We believe it is important for all patients undergoing surgery to consider these things.

Do you have any questions or comments about any of this?