Physicians' Experience with Surrogate Decision Making for Hospitalized Adults

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BACKGROUND: Hospitalized patients frequently lack decision-making ability, yet little is known about physicians' approaches to surrogate decision making.

OBJECTIVE: To describe physicians' experiences with surrogate communication and decision making for hospitalized adults.

DESIGN: Cross-sectional written survey.

PARTICIPANTS: Two hundred eighty-one physicians who recently cared for adult inpatients in one academic and two community hospitals.

MEASUREMENTS: Key features of physicians' most recent surrogate decision-making experience, including the nature of the decision, the physician's reaction, physician-surrogate communication and physician-surrogate agreement about the best course of action.

RESULTS: Nearly three fourths of physicians (73%, n=206) had made a major decision with a surrogate during the past month. Although nearly all patients (90%) had a surrogate, physicians reported trouble contacting the surrogate in 21% of cases. Conflict was rare (5%), and a majority of physicians agreed with surrogates about the medical facts (77%), prognosis (72%) and best course of action (65%). After adjustment for patient, physician and decision characteristics, agreement about the best course of action was more common among surrogates for older patients [prevalence ratio (PR) = 1.17 for each decade; 95% confidence interval (CI) 1.02–1.31], ICU patients (PR=1.40; CI 1.14–1.51) and patients who had previously discussed their wishes (PR=1.60; CI 1.30–1.76), and less common when surrogates were difficult to contact (PR=0.59; CI 0.29–0.92) or when the physician self-identified as Asian (PR=0.60; CI 0.30–0.94).

CONCLUSION: Surrogate decision making is common among hospitalized adults. Physician-surrogate deci-

sion making may be enhanced if patients discuss their preferences in advance and if physician contact with surrogate decision makers is facilitated.

KEY WORDS: decision making; communication; proxy; ethics.

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INTRODUCTION

Up to 40% of hospitalized patients are unable to make their own medical decisions because of dementia, delirium or other medical conditions that impair cognitive function.^{1,2} In such cases, physicians must work with family members or other surrogates to make choices for the patient. Studies of seriously ill, hospitalized patients have documented deficiencies in communication and decision making for all patients.^{2–5} However, communicating with surrogates may be even more complex than communicating directly with patients because the physician and surrogate may have less opportunity to establish a relationship with each other, and the surrogate may be experiencing strong emotions such as shock or grief due to the patient's illness.⁶

For physicians, surrogate decision making has been identified as a common source of ethical dilemmas⁷ and physician/family conflict.^{8,9} A few small, qualitative studies have addressed the surrogate experience and have found that communication with the health-care team is a critical part of decision making.^{10–14} Some of these studies identified barriers to good decision making that included specific physician communication behaviors.^{11,14} Studies have shown that enhanced communication with families may lead to improved outcomes for patients and surrogates, including earlier limitation of life-sustaining therapies,¹⁵ shorter ICU stays^{16,17} and reduced family distress.¹⁸

Although physicians' prior experiences and approach to communication are likely to impact their decision making for patients, little research has explored the surrogate decision-making experiences of practicing physicians. To examine this, we surveyed a diverse group of physicians caring for medical inpatients in three hospitals in a large metropolitan area about their recent experiences with surrogate decision making during inpatient care. We asked physicians to provide in-depth descriptions of the nature of decisions made and the process of decision making and communication with surrogates.

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METHODS

Survey Design

We designed a quantitative, written survey (online Appendix) of physicians' experiences and beliefs about surrogate decision making, based on a review of the literature^{8-11,13,14,19-21} and the results of previous semi-structured interviews with inpatient physicians.²² The survey was initially tested with four national experts in end-of-life care and with seven physicians who cared for adult inpatients, and iteratively revised based on written and oral feedback.

On the survey, physicians were asked to indicate whether they had made any major medical decisions for any patients within the past month who "could not participate in the decision-making process. This could be for any reason, for example, due to delirium, sedation, dementia or psychosis." We then asked physicians to recall the most recent such patient they had cared for. The physician provided basic demographic information about this patient, including race, age and sex, and information about the nature of the most recent decision. We then explored: (1) communication with the surrogate about the most recent decision, including the timing and frequency of communication with surrogates, ease of contacting the surrogate and physician ratings of communication effectiveness; (2) the physician's subjective experiences such as the presence or absence of decisional conflict and agreement. Finally, we examined physician characteristics, including gender, race, training level and practice setting.

Subjects and Survey Administration

We administered the survey to physicians from three diverse hospitals within the Chicago metropolitan area. We selected the hospitals to reflect a variety of practice settings, to include physicians with varying levels of experience and to include physicians from several disciplines that provide general inpatient care for adults. The three hospitals included an academic medical center that admitted patients to teams consisting of one attending physician, one resident and two interns. Fellows were involved in the care of ICU patients and some geriatric patients. A Catholic community hospital had residency training programs in internal medicine and family medicine. Patients were admitted either to inpatient teams led by rotating attending physicians and house staff, or directly to their own primary physician. The third hospital was a community hospital with an internal medicine residency staffed by physicians in private practice. Patients were admitted to their private physician, to a hospitalist service or to the ICU service. Residents participated in the care of patients in all three hospitals.

The subject pool consisted of all attending and resident physicians who worked on the internal medicine, family medicine or intensive care unit services over a consecutive 4-month period at each hospital, as well as all private practice physicians on staff at each hospital who cared for adult inpatients during the same 4-month period. To recruit residents and attending physicians who rotated on service, we obtained the monthly inpatient schedules for the internal medicine, family medicine and intensive care units at each hospital. Based on these schedules, we contacted every physician who had worked on any of the target services for at least 1 week. Physicians were contacted no more than 2

weeks after their service had ended. To recruit private practice physicians, we obtained the complete medical staff lists of internal medicine, family medicine and intensive care unit physicians from the community hospitals. Private practice physicians were eligible to participate if they had treated one or more adult patients in the inpatient setting within the last month. A member of the research team telephoned each physician to determine eligibility and to request participation in the study. Each physician was called at least twice. For each physician, a member of the research staff brought a pencil and paper survey to the physicians' office or hospital. Surveys were completed with the research assistant present and collected immediately upon completion. We obtained institutional review board approval at each hospital, and strict measures were undertaken to safeguard physician and patient confidentiality. Physicians were not compensated for their participation. Surveys were conducted between August 2006 and April 2007.

Data Analysis

We defined our primary outcome as physicians' reports of agreement with the surrogate about the right course of action. To simplify the analyses, we dichotomized responses to the statement "The surrogate(s) and I agreed about the right thing to do in this case" into subjects who strongly agreed or agreed as compared with those who neither agreed nor disagreed, disagreed or strongly disagreed with the statement.

First, we examined the bivariate relationships among each physician, patient and decision characteristic and our outcome variable. Next, we performed multivariate logistic regression to examine the independent association between predictor variables and physician/surrogate agreement. In our final models we included variables approaching significance on bivariate analysis ($p < 0.20$), key physician and patient demographic characteristics, and other variables in which we had a substantive theoretical interest.

Because our outcome variable was common, we converted our odds ratios to prevalence ratios (PR) in order to avoid overstating the associations of interest.²³ To calculate the PR's for the age variable, we compared each age group to the youngest group. We also repeated each analysis using ordered logistic regression, with the original Likert-type response items as the outcome variable; these analyses did not yield substantively different results and are not reported herein. Data were entered into a Microsoft Access database, and analyses were performed using STATA 9.0 (Stata Corp., College Station, TX).

RESULTS

Five hundred thirty eligible physicians were identified during the study. Of these, 74 subjects could not be contacted, and 110 subjects were ineligible because they had not cared for inpatients in the recent past or had left the participating hospital. Of the 346 remaining subjects, 281 completed the survey (adjusted response rate based on a conservative estimate that all unreachable subjects were eligible, 67%), and 65 did not. Of those 65 physicians, 27 refused, and 38 were unable to complete the survey within the 2-week time frame specified in our protocol. Compared with non-respondents, respondents were more likely to be house staff (73% vs. 61%, $p = 0.007$) and internists (78% vs.

61%, $p < 0.001$) and less likely to be in private practice (76% vs. 52%, $p < 0.001$).

Our physician sample was 46% female, 56% white and 28% Asian. Forty-seven percent of subjects were attending physicians, 2% were fellows, 22% were residents, and 29% were interns. Slightly more than half (57%) of attending physicians were in private practice, while the remainder practiced in an academic hospital setting. Most physicians (65%) were internists, 19% were family physicians, 5% were trained in pulmonary or critical care, and 11% were from other specialties (e.g., geriatrics, hospital medicine or transitional year trainees).

Patients Lacking Decision-Making Capacity

Of all physicians surveyed, 206 of 281 physicians (73%) had made a major medical decision in the past month for a patient who lacked decision-making capacity. We asked each physician to describe the most recent patient for whom they had made a major decision (Table 1). The most common medical decisions involved palliation and hospice (26% of patients), changes in code status (18%) or withdrawal of life-sustaining care (18%). Physicians reported a prior relationship with the patient 19% of the time. A prior relationship was more common for attending physicians compared to house staff (42 vs. 3%, $p < 0.001$) and for attending physicians in private practice compared to those employed by the hospital (69% vs. 14%, $p < 0.001$). Physicians reported that there was a living will 10% of the time, but did not know whether there was a living will 35% of the time. Physicians reported that the patient had previously discussed wishes for care with anyone 44% of the time, but did not know whether or not such discussions had occurred 33% of the time. In 10% of cases, a surrogate decision maker could not be identified.

The Process of Doctor-Surrogate Communication

Among patients with an identified surrogate, communication between the surveyed physician and a surrogate occurred on the 1st day of admission in 57% of cases. The surveyed physician never personally spoke with a surrogate in 24% of cases. In 14% of cases, the surveyed physician had only one meeting or discussion with the surrogate during the patient's hospital stay. Approximately one in five physicians (21%) reported difficulty contacting the patients' surrogate. Approximately two-thirds of cases (62%) involved one surrogate decision maker, while the remainder involved two or more primary surrogate decision makers.

Physician Reactions to Surrogate Decision Making

Physicians thought communication was effective 78% of the time and were satisfied with the outcome of the decision 82% of the time (Table 2). Twenty-three percent of physicians stated that making the decision caused them a great deal of distress.

Determinants of Physician-Surrogate Agreement

Physicians reported moderate levels of agreement with surrogates about the facts of the illness (77%), the patient's prognosis (72%) and the best course of action for the patient (65%). However, overt conflict with surrogates was reported only 5% of the time (Table 2).

Table 1. Characteristics of Hospitalized Adults Lacking Decision-making Capacity and Requiring a Major Medical Decision (n=206 Patients)

	Percent
Age	
18–40	5
41–60	20
61–80	44
80+	31
Sex	
Female	60
Male	40
Race	
African American	65
White	30
Hispanic/Latino	3
Asian	2
Most recent decision	
Life-sustaining therapy	81
Code status	18
Withdraw or withhold life-sustaining therapy	18
Artificial nutrition or hydration	9
Withdraw treatment due to poor prognosis	10
Hospice/palliative care	26
Major surgery	6
Hospital/nursing home transfer	12
Identifiable surrogate decision maker	
Yes	90
No	9
Don't know	1
Prior relationship with physician	19
Attending physicians	42
Academic attending	14
Private practice	69
House staff	3
Durable power of attorney for health care	
Yes	31
No	50
Don't know	19
Living will	
Yes	10
No	55
Don't know	35
Prior discussion of care preferences	
Yes	44
No	23
Don't know	33

In multivariate analyses, physician-reported agreement about the best course of action was more likely for patients who were in the intensive care unit [prevalence ratio (PR) = 1.40; 95% confidence interval (CI) 1.14–1.51; Table 3]. As patients got older, agreement with the surrogate was more likely (PR=1.17 for each decade; CI 1.02–1.31). This means that there is an increase in the odds of agreement of 17% for every increased decade of age. Agreement was also more likely if the patient was known to have previously discussed his or her wishes with anyone (PR=1.60; CI 1.30–1.76). Agreement was less likely when the physician had trouble contacting the surrogate (RR=0.59; CI 0.29–0.92) and for Asian compared to white physicians (PR=0.62; CI 0.32–0.94).

DISCUSSION

Our findings, based on surveys with a diverse group of physicians from three hospitals in a large metropolitan area, suggest that inpatient physicians commonly interact with

Table 2. Physician Beliefs and Reactions to Surrogate Decision Making (n=206 Physicians)

	Strongly agree or agree, %	Neither agree nor disagree, %	Strongly disagree or disagree, %
Presence of agreement or conflict			
The surrogate(s) and I agreed about facts of the patient's illness	77	15	7
The surrogate(s) and I agreed about the patient's prognosis	72	19	9
The surrogate(s) and I agreed about the right thing to do in this case	65	21	13
There was interpersonal conflict between myself and the surrogate(s)	5	16	79
Physician reaction to decision making			
Making this decision caused me a great deal of distress	23	20	57
I felt certain about what was right in this case	79	10	11
I was satisfied with the outcome of this decision	82	10	8
I was able to effectively communicate with the surrogate(s)	78	16	7

surrogates to make clinical decisions for their patients. Most patients were elderly, and most decisions involved some aspect of life-sustaining care.

Although disagreement between physicians and surrogates was common, overt conflict was rare; this is in contrast to prior work^{8,9} and may have been because our survey domains allowed for subjects to distinguish disagreement from interpersonal conflict. This may be surprising to physicians because conflicts do comprise a high proportion of the ethical challenges faced by clinicians.²⁴ However, some research has shown that a small number of cases become very time consuming and distressing because of conflict.²⁵ These cases may be very salient in the physician's memory even if rare. About one fifth of the time, physicians report ineffective communication with the surrogate, a lack of satisfaction with the outcome of the decision and a high level of stress due to decision making. Surrogate decision making may be under-recognized as a cause of distress for practicing physicians. Research has found that these outcomes are even more common for surrogates, with up to 48% experiencing substantial distress²⁶ and a third experiencing communication problems.²⁷

We found low levels of continuity between the inpatient and outpatient setting, low levels of advance care planning through living wills and a high proportion of physicians who were not aware of whether the patient had expressed prior written or oral preferences for care. These findings suggest the important contexts in which a considerable proportion of physician-surrogate communication may take place. Low levels of continuity may be due in part to the rise of hospitalist physicians^{28,29} and the team approach of many academic centers. Our finding that few patients had advance directives is consistent with prior research on advance care planning.^{2,30}

Physicians' perceptions of agreement with surrogates regarding the best course of action were more likely among

Table 3. Multivariate Association Between Physician/Surrogate Agreement About the Best Course of Action and Patient, Physician and Decision Characteristics (n=206 Physicians)

	Total*	Physician perceived agreement with surrogate, %	Prevalence ratio (95% confidence interval)†
Physician characteristics			
Sex			
Male	110	66	Referent
Female	91	64	0.92 (0.61–1.17)
Race			
White	112	69	Referent
African American	14	71	1.04 (0.49–1.32)
Hispanic/Latino	6	67	1.20 (0.36–1.43)
Asian	56	59	0.60 (0.30–0.94)‡
Other	13	54	1.35 (0.49–1.35)
Physician status			
House staff	113	61	Referent
Attending	88	70	0.98 (0.61–1.30)
Private practice			
No	155	62	Referent
Yes	46	76	1.33 (0.95–1.52)
Patient characteristics			
Sex			
Male	83	65	Referent
Female	118	65	0.77 (0.46–1.07)
Age			
18–40	11	45	1.17 (1.02–1.31)‡
41–50	12	42	(per 10 year increase)
51–60	27	63	
61–70	44	61	
71–80	45	71	
80+	61	72	
Patient race			
White	60	73	Referent
African American	130	61	0.90 (0.57–1.15)
Other	11	73	1.31 (0.86–1.37)
Patient in intensive care unit			
No	141	70	Referent
Yes	60	63	1.40 (1.14–1.51) ‡
Had a living will			
No	180	64	Referent
Yes	20	70	0.58 (0.19–1.12)
Had a prior discussion about wishes			
No	111	53	Referent
Yes	90	80	1.60 (1.30–1.76)‡
Had a durable power of attorney			
No	138	62	Referent
Yes	62	71	0.99 (0.62–1.30)
Decision characteristics			
Most recent decision			
Life-sustaining therapy	148	71	Referent
Surgery	11	45	1.02 (0.64–1.26)
Nursing home/transfer	23	48	0.52 (0.68–1.11)
Communication characteristics			
Time to first conversation			
Less than 1 day	80	71	Referent
One day or longer	105	67	0.98 (0.72–1.18)
Number of meetings with surrogate			
0	47	48	0.91 (0.76–1.07) (per additional meeting)
1	28	67	
2	41	73	
3	42	69	
4 or more	44	70	

(continued on next page)

Table 3. (continued)

	Total*	Physician perceived agreement with surrogate, %	Prevalence ratio (95% confidence interval)†
Difficulty contacting surrogate			
No	159	70	Referent
Yes	41	44	0.59 (0.29–0.92)‡

*Column totals may be less than 206 due to missing data

†Prevalence ratios (95% confidence intervals) are calculated from multivariate logistic regression, which adjusts for all the other variables presented in this table

‡ $p < 0.05$

patients who had previously expressed wishes for care and less likely with surrogates who were difficult to contact. This suggests that the quality of communication both with patients, before they lose capacity, and with surrogates, at the time of decision making, can impact the process of decision making. Although studies have found mixed results regarding whether prior discussions of preferences increase the accuracy of surrogate predictions,³¹ the benefits of communication may extend beyond this.^{12,32} Communication may help family members come to terms with a patient's serious illness, prepare them for decision making or address decisions beyond the narrow focus of most living will documents. These additional benefits of communication may facilitate the surrogate-physician decision-making process.

Agreement about the right course of action was also more likely as patients aged. It is possible that agreement about the overall goals of care may be easier to achieve for older adults. For example, setting limits on aggressive care may be more acceptable to the patients and families of older adults, whereas for younger adults decisions about such limitations are more controversial. Further research is needed to examine the impact of age on decision making.

Finally, Asian physicians were less likely to report agreement than white physicians. Others have noted cultural differences between decision-making approaches of whites compared to Asian-American^{33,34} and Asian versus Asian-American physicians³⁵ that may affect decision making. Physicians who self-identified as Asian in this study were diverse and included both South Asian and East Asian physicians, and native and non-native English speakers. Further research is needed to explore which, if any, of these factors may have contributed to lower levels of agreement.

Although physician-reported agreement with surrogates about the best course of action was more likely when the patients had discussed their wishes verbally, agreement was not related to the presence of a living will or durable power of attorney; as with others,^{2,36–38} we were unable to demonstrate that written advance directives had an impact on the process or outcomes of care.

It is noteworthy that although only a small percent of patients lacked an identified surrogate, physicians often still had trouble reaching the surrogate to make critical decisions. Such difficulty was associated with lower physician-surrogate agreement regarding the best course of action. The causal direction of this association is not clear from this cross-sectional survey; while decreased ability to communicate with the surrogate may lead to more physician-surrogate disagreement, it is also plausible that families who have disagreements

or conflicts with the medical team may avoid communication. Given evidence from intensive care unit settings that early communication may improve outcomes for patients and families,^{16,18,39} interventions in the broader hospital setting to promote early and frequent physician-surrogate communication may have the potential to improve surrogate decision making.

This study has several limitations. First, this was a study of physicians, rather than of both physicians and surrogate decision makers. As noted above, surrogates' attitudes, beliefs and experiences communicating with physicians and other members of the medical team are an essential complement to this report in helping to inform our knowledge of the physician-surrogate relationship. Second, there were differences between responders and non-responders in the survey, which may have introduced bias in the responses. Third, we interviewed a single physician for each patient. Due to the team structure of hospital care, it is likely that other physicians may have also communicated with each surrogate, and so our study may under-represent the amount of communication that occurred between the surrogate and various members of the team. It is also possible that more than one physician described the same patient. Because we did not personally collect identifying information for patients, we were unable to control for this in our analysis. Fourth, although our study was designed to minimize recall bias, it is still possible that some physicians recalled a memorable, rather than most recent, clinical case involving surrogate decision making. Finally, we examined physicians within three hospitals from a single metropolitan area. Despite this, there was considerable diversity among our physician participants and the characteristics of patients they cared for, and there is no *a priori* reason to believe that our findings would differ significantly in most hospital settings in the United States.

Our findings provide an opportunity to examine aspects of clinical decision making for patients without decisional capacity. Such decision making is distressing to a substantial minority of physicians. Most patients who require surrogate decisions are elderly, and age may have an impact on the decision-making process. Efforts to promote conversations with patients about their own future before they lose decision-making capacity and efforts to identify and reduce barriers to communication with surrogates during hospitalization may lead to better decision making for patients unable to speak for themselves.

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