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Expanding the paradigm of the physician's role in surrogate decision-making: An empirically derived framework*

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Abstract

Background—Little is known about what role physicians take in the decision-making process about life support in intensive care units.

Objective—To determine how responsibility is balanced between physicians and surrogates for life support decisions and to empirically develop a framework to describe different models of physician involvement.

Design—Multi-centered study of audio-taped clinician–family conferences with a derivation and validation cohort.

Setting—Intensive care units of four hospitals in Seattle, Washington, in 2000 to 2002 and two hospitals in San Francisco, California, in 2006 to 2008.

Participants—Four hundred fourteen clinicians and 495 surrogates who were involved in 162 life support decisions.

Results—In the derivation cohort ($n = 63$ decisions), no clinician inquired about surrogates' preferred role in decision-making. Physicians took one of four distinct roles: 1) informative role (7 of 63) in which the physician provided information about the patient's medical condition, prognosis, and treatment options but did not elicit information about the patient's values, engage in deliberations, or provide a recommendation about whether to continue life support; 2) facilitative role (23 of 63), in which the physician refrained from providing a recommendation but actively guided the surrogate through a process of clarifying the patients' values and applying those values to the decision; 3) collaborative role (32 of 63), in which the physician shared in deliberations with the family and provided a recommendation; and 4) directive role (1 of 63), in which the physician assumed all responsibility for, and informed the family of, the decision. In 10 out of 20 conferences in which surrogates requested a recommendation, the physician refused to

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provide one. The validation cohort revealed a similar frequency of use of the four roles, and frequent refusal by physicians to provide treatment recommendations.

Conclusions—There is considerable variability in the roles physicians take in decision-making about life support with surrogates but little negotiation of desired roles. We present an empirically derived framework that provides a more comprehensive view of physicians' possible roles.

Keywords

surrogate decision-making; physician recommendations; ethics; end-of-life care

One of the most challenging decisions in medicine is whether to withhold or withdraw life support in the care of an incapacitated patient with advanced disease. In part, these decisions are difficult because they often hinge not on medical facts but on the values of the individual patient about future health states and potentially burdensome interventions (1–3). Because these patients cannot actively participate in decisions about their medical care, physicians and families often assume this responsibility (4). Few physicians receive formal teaching on how to navigate difficult, value-sensitive decisions with surrogate decision-makers beyond what they have observed during their training (5, 6). Families report that the surrogate decision-making process is often problematic and poses substantial emotional burdens (7–10). Conflict about these decisions is common within families and between the family and the health care team (11, 12). Physicians and nurses report that these decisions frequently cause them moral distress (13–16).

There is consensus that physicians have an obligation to disclose to surrogates information about a patient's medical condition and prognosis, and that surrogates are an important, albeit imperfect, source of information about an incapacitated patient's values (17–20). However, there is considerable debate about the role physicians and surrogates should play in ultimately deciding whether to limit life support (21–23). Furthermore, although several investigators have proposed models to describe the physician–patient relationship (21, 24–26), there has been relatively little research on the physician–surrogate relationship (27, 28). It is unclear whether it is appropriate to generalize these models to the physician–surrogate relationship because surrogates face distinct challenges compared to patients (9, 10). The language of professional society statements suggests that physicians perceive three possible approaches to their role in surrogate decision-making: 1) paternalism, in which the physician makes the treatment decision with little input from the surrogate; 2) informed choice, in which the physician provides all relevant medical information but withholds his or her opinion and leaves responsibility for the decision to the surrogate; and 3) shared decision-making, in which the physician provides relevant medical information, elicits information about the patient's values and treatment preferences, and then provides a treatment recommendation and shares in the deliberative process (20, 29–31).

Although several commentators have delineated the pros and cons of different approaches to decision-making (21, 22, 32), and questionnaire-based studies have polled surrogates about their preferred approach (33–35), no empirical studies have assessed how physicians and surrogates actually balance decisional authority. It is also unknown whether existing conceptual models for decision-making adequately describe practice variations. These gaps in knowledge pose a substantial barrier to designing evidence-based interventions to improve surrogate decision-making for incapacitated patients.

We therefore conducted this multi-centered study to examine how physicians and surrogates balance decisional authority and to assess whether existing models of the physician's role in surrogate decision-making adequately describe clinical practice.

MATERIALS AND METHODS

Study Design, Patients, and Setting

This multi-centered qualitative study was conducted in two phases. From August 2000 to July 2002, we audio-taped physician–surrogate conferences in the ICU of four hospitals in Seattle, Washington, including a county hospital serving an inner city population, a university hospital, and two community hospitals. These data, which comprised the derivation cohort, were originally collected to study the general topic of how physicians and surrogates communicate in ICU. For the current study, we conducted a secondary analysis to determine the roles physicians play in decisions about whether to limit life support. In the second phase of the study (the validation cohort), conducted from January 2006 through August 2008, we audio-taped physician–surrogate conferences at two hospitals in San Francisco, California. One hospital is a tertiary care center; the other is a county hospital serving a largely indigent population. Screening procedures and enrollment criteria were identical during both phases of the study. Study procedures have been described previously, although no previous report has described the roles physicians played in life support decisions (36–39). Through daily contact with charge nurses we identified eligible ICU family conferences meeting all of the following criteria: 1) occurring on weekdays; 2) including family and physicians; and 3) all participants conversing in English without an interpreter. To specifically identify conferences in which there would be deliberation about end-of-life treatment decisions, we asked the patient’s attending physicians if they anticipated that there would be discussion of withholding or withdrawing treatment or discussing bad news. We excluded conferences in which the physician stated that these issues would not be discussed. Conferences concerning patients younger than 18 yrs were also excluded. The conferences represent a consecutive sample of eligible family conferences that occurred on weekdays. The attending physician and bedside nurse provided permission to approach each family. After discussions with study staff and execution of consent forms by all participants, the conference was audio-taped. Institutional Review Boards at each hospital approved all procedures.

Qualitative Data Coding

A medical transcriptionist transcribed the audiotapes verbatim. We used constant comparative methods to inductively develop a framework to describe physicians’ roles in life support decisions. Constant comparison is a general methodology for inductively analyzing data that are systematically gathered. This qualitative research method is often used when existing conceptual frameworks for the topics undergoing study are inadequate (40, 41). We describe the analytic steps used to arrive at the final coding framework.

To develop an initial draft of the coding framework, five investigators with diverse backgrounds reviewed a subset of the transcripts from the derivation cohort. Each investigator independently performed open coding in which we read and performed line-by-line coding of 15 transcripts to identify themes and concepts relating to physicians’ roles in decision-making. Through a series of meetings, all investigators compared preliminary frameworks and examined the differences (40, 41). As concepts accumulated and distinctions between concepts became more refined, similar concepts were grouped into conceptual categories. These categories were developed further by comparing the categories within and between transcripts. We used ATLAS.ti software (Berlin, Germany) for qualitative data management.

Reliability of the Coding

Using the final coding framework, two coders independently coded all conferences by listening to the audiotapes and reviewing the transcripts. The coders were blinded to the

demographic characteristics of the conference participants. We calculated the kappa statistic for both cohorts on the codes that formed our main results: which role the physician took in decision-making, whether the physician elicited the families' preferred role, whether surrogates requested a recommendation, and whether physicians provided a recommendation in response. The kappa statistic assessing inter-rater reliability among the coders was 0.84. A kappa value >0.8 is considered excellent inter-rater reliability (42). When coders disagreed about coding, they together reviewed and discussed the decision in question. In all circumstances they reached consensus on the appropriate code to apply, twice requiring broader discussions among the entire research team.

Validity of the Findings

A description of the validation methods can be found in the online supplement (see Supplemental Digital Content 1, <http://links.lww.com/CCM/A73>).

RESULTS

In the derivation cohort, no physician refused to participate in the study. However, for 19 of 111 eligible families, the physician or bedside nurse refused to allow investigators to approach a particular family. Twenty-four families refused to speak with study personnel after reviewing the study pamphlet. Of the 68 families ultimately approached by study personnel, 51 agreed to participate. Overall, 46% (51 of 111) of eligible family conferences were audio-taped.

Demographic characteristics of the patients, physicians, and family members who participated in the conferences are described in Table 1. In the derivation cohort, 35 different physicians led the 51 conferences: 24 physicians conducted a single conference, seven conducted two conferences, three conducted three conferences, and one conducted four conferences. The average number of clinicians present at each conference was 4.3 (range, 1–12), including physicians, nurses, social workers, and chaplains. The number of family members in each conference ranged from 1 to 13, with an average of 4.5. Overall, 41 of the 51 (80%) of the patients died in the hospital. In 44 of the 51 (86%) conferences, participants discussed withdrawing life support. In 19 of 51 (37%) conferences, do not resuscitate orders were discussed. Overall, there were 63 distinct life support decisions in the 51 conferences. The average length of the conferences was 32 ± 15 mins. A detailed description of enrollment data and demographics of the derivation cohort is provided in the online supplement (see Supplemental Digital Content 1, <http://links.lww.com/CCM/A73>).

Framework to Describe Physicians' Roles in Life Support Decisions

Our analyses revealed four distinct roles assumed by physicians during decision-making with surrogates. At one extreme, physicians assumed complete control over the decision (directive role). At the other extreme, physicians ceded all responsibility for the decision to the surrogate (informative role). Between these extremes, we identified two distinct approaches to balancing decisional authority—the facilitative role and the collaborative role (Table 2). We present passages from the conferences as exemplars of the four approaches.

Informative Role

For seven of 63 decisions, the physicians limited their involvement to providing information to the surrogate about the patient's condition, prognosis, and treatment options. These physicians gave all responsibility for the life support decision to the family, did not share in deliberations with families, and did not provide an opinion about which treatment option they felt was most appropriate. They also did not make efforts to help the surrogates understand the patient's values or apply these values to the decision. In the following

example, after describing the severity of the patient's multi-organ system failure, the physician requested from the families a decision about cardiopulmonary resuscitation:

"We need to talk about—and it is one of those tough things to talk about, how would you like for us to handle... a catastrophe if, for example, she had a cardiac arrest? What should we do?"

Another physician shared his view of how life support decisions should be made:

"It is my bias that we ought to give you the information and you stick by your decision. In other words, you are not to be put in a circumstance where you do what we tell you and feel for the rest of your life, gosh, I wish I had not listened to those doctors. I never knew them and I will never see them again. I think the most important issue when you have a family member in the ICU is to know what your decisions can be. You need to know what the variables are and you need to know what choices you have. Then you need to make the choice."

Our analyses revealed an interesting variation of the informative role. In five of 63 decisions, the physician adhered to the informative role until the family reached a decision, then expressed support for the family's choice. All responsibility for the decision rested with the family, but the physician provided a measure of validation after the fact. In the following example, after the family decided to withdraw life support from a frail, elderly patient with multiple severe comorbidities, the physician said:

"So I think, I think the decision you all have come to and have voiced is a reasonable one, that your knowledge of him and how he was living his life before when he became debilitated, that this would not be something he would be interested in participating in, that he would want."

Facilitative Role

In the facilitative role, used in 23 of 63 decisions, physicians went beyond providing key medical facts to actively assist surrogates through the process of clarifying patients' values and applying those values to the decision about life support. However, these physicians maintained a position of neutrality about whether life support should be withdrawn as they facilitated surrogates' deliberations.

Most simply, these physicians made efforts to bring the patient's values and preferences to the fore by asking questions such as, "has she ever talked about whether she would accept being on a breathing machine long-term?" and "if she could sit up in bed, what would she say about this decision?" Some physicians also made explicit the value-sensitive nature of the decisions. For example, one physician advised the daughter of a man with ventilator dependence after a severe stroke, "different people would make different choices here—it really depends on your father's values." Another way these physicians facilitated decision-making was to counsel surrogates to separate their own preferences from the patient's preferences, and to give precedence to patient's values if there was a difference. After the daughter of an intubated patient acknowledged a difference between her values and those of the patient, the physician said, "You need to keep foremost in your mind what her desires would be... it is hard to separate those two things. But from your description, I suspect she would have a very strong opinion of that."

Some physicians guided surrogates to what they viewed to be the key considerations for the decision, as in the following statement by an intensivist: "you need to think about, given that she is unlikely to wake up and return to independence, whether [these treatments] are something she would accept or whether she would prefer that we withdraw the life support and keep her comfortable and let her, let her die."

In several conferences, surrogates reported patient values that were consistent with refusing ongoing life support, but also seemed uncertain about how to translate these value statements into a treatment decision. In response, some physicians summarized and reflected back to surrogates their statements about the patient's values, as in the following example:

"It really sounds like you are saying that she might, in this situation, not have wanted really aggressive treatment—CPR and shocks—if her heart were to stop."

Another technique some physicians used to facilitate a clearer understanding of how patients' values can be translated into treatment choices was to present several "hypothetical" recommendations based on different assumptions about the patient:

"If you were to tell us that she would rather be dead than in a hospital bed for a week or be on a life support machine, then we should bear that in mind and consider whether what we are doing is what she would want us to do. If she has been a fighter and you think she would want every effort to pull through this, then we ought to continue to do our best to treat her for a bit longer and see how things go."

The facilitative role contrasts with the informative role because the physician goes beyond providing medical information to educate family members about principles of surrogate decision-making, to elicit information about the patient's values, and to link certain values to certain treatment options. In short, the physician acts as both a provider of medical facts and also as a guide through the difficulties of surrogate decision-making. This approach contrasts with the collaborative model because the physician facilitates the deliberative process without providing a clear recommendation about whether to limit life support. Physicians who used the facilitative approach gave authority to family members to determine the patient's values and to choose the treatment that best fit those values.

Collaborative Role

For 32 of 63 decisions, the physician deliberated with the family and provided a recommendation about whether life support should be continued. These physicians engaged in many of the same behaviors seen in the facilitative role, but went beyond facilitation to also give a recommendation about what course of action they thought was most appropriate. Their recommendations were either framed in terms of the patient's values or preceded by an in-depth discussion of the patient's values. For example, after a detailed discussion of the patient's values, one physician summarized the patient's condition and prognosis and then made the following recommendation:

"I think I hear you saying that she would not want this and my recommendation is to not give her care that she does not want, but to keep her comfortable and withdraw the life support and let her go."

Directive Role

In one out of 63 decisions, the physician assumed complete control over the decision. In the following example, the physician informed the family of a bed-bound patient with a severe decubitus ulcer that he had made the decision to write a do not resuscitate order based on his belief that it would be inappropriate to attempt resuscitation in the event of cardiac arrest:

"Now, I have made her a no code. That means that if her heart is to stop or she is to stop breathing, we are not going to call a code team to pound on her chest and put a tube in her throat and start to support her because that would be cruel to do to a lady like this. It would be inappropriate medicine."

In this approach the physician offered minimal medical information to the family, did not engage them in deliberation, and made the decision independently.

Navigating Decisional Roles

No physician engaged surrogates in an explicit discussion about the family's preferred role in the decision-making process. When there was explicit mention of decisional roles, it generally took the form of physicians informing families about how the decision would be made. Some physicians stated their bias toward withholding their recommendation to not unduly influence decisions, whereas others felt that their recommendation was an important piece of information for families to consider. Several surrogates volunteered their preferred role in decision-making without prompting from the physicians. Table 3 contains representative quotes from physicians and surrogates about their attitudes toward decisional control, which reveal considerable diversity in belief about appropriate roles.

Several families openly challenged the physician's default approach to decision-making. For example, after a physician expressed a belief that he and the family should make the decision together, and made a recommendation to withdraw life support, the family expressed a different view:

"When the crisis comes, we will come back as soon as possible and we will take the responsibility of making a decision. I do not think a doctor should make that decision."

Although some physicians used only one approach to decision-making, others adopted multiple roles during the same conference, or differed in how they approached different surrogates. This suggests that some physicians changed roles based on unspoken cues they perceived from surrogates during the conversations. Most often, these physicians initially used an informative approach but transitioned to a facilitative approach or collaborative approach as the conference progressed. In some circumstances, families explicitly requested more guidance from physicians. In others, physicians took a more active role in response to conflict or stalemate within the family. Seven of the 10 physicians who conducted more than one conference used at least two distinct roles during deliberations. In 45% of conferences, physicians explicitly expressed support for the family's ultimate decision.

Physicians' Responses to Requests for Recommendations

Family members explicitly requested a recommendation from physicians in 20 of 51 conferences. In 10 of these, physicians provided the requested recommendation. In the remaining 10, physicians either explicitly refused to give a recommendation or provided further information about the pros and cons of continuing life support without giving a recommendation. In the example, the discussion centered on whether to withdraw life support in a patient with a large intracranial bleed and a high likelihood of severe long-term functional impairment:

Family: Doctor, can I ask your professional opinion? Please, do not hesitate if you hurt my feelings. I am really ready for this. What would you recommend, strongly recommend? Please do not think about, you know, hurting me. I am trying to be really, to listen to you as much as I can, you know?

Physician: Sure, that is a tough question for me to answer.

Family: I am not asking your personal, just your professional, yeah.

Physician: Well, even as a professional, it is tough for me to answer... What I like to do is, is kind of give you the facts as, as I know from my experience and what we can expect from her having this large injury.

Findings From the Validation Cohort

Enrollment details and demographic data for the validation cohort can be found in the online supplement (Supplemental Digital Content 1, <http://links.lww.com/CCM/A73>). Each role identified in the derivation cohort was also used by physicians in the validation cohort. The frequency of use of each role was similar between the two cohorts (Table 4). Physicians in the validation cohort employed the facilitative role in 33% (33 of 99) of decisions and the collaborative role in 53% (52 of 99) of decisions. Twenty-eight surrogates explicitly requested a recommendation about whether to limit life support; physicians did not provide a recommendation in response to 57% of these requests (16/28).

DISCUSSION

The goal of this study was to begin the development of a systematic, empirically derived body of knowledge about potential models of decision-making in the physician–surrogate relationship. The study reveals considerable variability in how responsibility is distributed and little explicit negotiation of desired roles. It also suggests that the most commonly cited models of the physician–surrogate relationship—*informed decision-making*, *shared decision-making*, and *paternalism*—may not adequately describe practice. We present a framework based on observable behaviors that describes four roles for physicians in surrogate decision-making.

A key finding from this study is that physicians did not provide surrogates a recommendation for approximately half of the life support decisions that arose during the conferences. Furthermore, in situations in which families explicitly asked for the physician's opinion, only half gave one. This finding is consistent with two previous studies that reveal reluctance among U.S. and British physicians to play an active role in medical decisions that involve difficult value judgments. In a survey of U.S. internists, half believed that it is inappropriate for physicians to offer such opinions (43). Corke et al (44) used patient simulation to study how British physicians respond to requests for guidance from patients faced with a high-stakes, preference-sensitive decision. They found that two-thirds of physicians refused to provide an opinion, even after an explicit request from the patient. Neither of these studies provides insight into why physicians are reluctant to give recommendations. Although the current study was designed to understand behavior rather than attitudes, the heterogeneity of approaches taken and statements from participants during the conferences (Table 3) indicate that there is not consensus about the appropriate role of the physician in making life support decisions for incapacitated patients. We speculate that some physicians may be reluctant to make recommendations because of the moral burden entailed in decisions to forego life-sustaining treatment; others may be concerned that their recommendations will be too influential and that families may acquiesce to decisions that are contrary to the patient's interests.

Ethicists have delineated several potential limitations to physicians' recommendations, including the possibility that physicians' personal biases will unduly influence their recommendations (45, 46) and that the power differential between physicians and patients/surrogates may render the recommendations unduly influential (47, 48). An experimental study using healthy volunteers revealed that physicians' recommendations can sway individuals to make illogical treatment decisions (49). Nonetheless, a large cohort study in Canada revealed that the majority of surrogates of critically ill patients want to receive the physician's recommendation regarding life support decisions (50). We previously reported

that families' ratings of the quality of communication are higher when physicians provide explicit support for decisions made during family conferences (51). In addition, a cohort study from France suggests that inadequate support from physicians may be a risk factor for high psychiatric symptom burden in families of critically ill patients (52).

In an ethical analysis of the physician–patient relationship, Emanuel and Emanuel (21) delineated only one role for physicians who are uncomfortable providing a recommendation—the informative role. The authors advocate that the ideal role for the physician is analogous to that of a teacher or friend (21). Rather than simply providing information, coaching patients, or providing recommendations based on patient's values, the ideal physician would encourage patients to think about alternative health-related values and then make efforts to persuade patients to pursue a best course of action. It is unclear whether this model, which was designed for the physician–patient relationship, applies equally well to the physician–surrogate relationship. A concern is that the person whose moral authority is the most important (the patient) is not available to hear and respond to the physician's attempts at moral persuasion.

Our analyses reveal a middle ground for physicians who are reluctant to provide a recommendation about limiting life support, but who also wish to go beyond the role of dispensing medical facts. In the facilitative role—used by one-third of physicians in the study—the physician takes an active role in decision-making but does not make a recommendation. Instead, the physician coaches the family through the decision-making process, focuses their attention on key trade-offs, summarizes and reflects back to families their statements about the patient's values, and aids them in specifying how these values may apply to the decision. A potential strength of this approach is that it allows physicians to use their expertise to guide surrogates through the decision-making process while minimizing the possibility of undue influence on the decision. This approach will likely be insufficient for surrogates who wish to share with the physician the ultimate responsibility for the decision (33).

Although we think the facilitative role is a valuable addition to previously described roles, we do not advocate it—or any other role—as ideal in all circumstances. Instead, we believe that the uniqueness of individual families (33, 53), as well as the multi-faceted difficulties of surrogate decision-making, require that physicians remain flexible in their approach. Some physicians in the study adjusted their approach to decision-making in response to cues from surrogates; however, others did not, even with explicit requests from surrogates for more guidance. No physician in the study asked the family what role they preferred in the decision-making process. These may be important areas for further research and improvements of clinician training. It may be more respectful of surrogates for physicians to assess and respond to their preferences for decision-making. Furthermore, if surrogates request a recommendation from the physician, it may not be in the patient's best interests for the physician to withhold assistance with decision-making. Our findings highlight the need to teach clinicians techniques to discern surrogates' needs and then adapt their approach to meet these needs.

The framework developed in this study offers physicians a starting point to assess and improve their practice. The four roles are based on specific behaviors that may be teachable skills, such as discerning a surrogate's preferred role in decision-making, or reflecting back to surrogates their statements about patients' values. The benefit of describing roles in terms of discrete skills is that it may be more realistic for physicians to incrementally change or add behaviors to their repertoire, rather than adopt an entirely new approach to decision-making. Providing descriptive names to these different behaviors may facilitate teaching and subsequent research on their validity and utility.

This study has several limitations. First, slightly less than half of eligible subjects agreed to participate, raising the question of how generalizable our findings are regarding the prevalence of various decision-making approaches. The purpose of this hypothesis-generating study was not to definitively answer this epidemiologic question, but instead to begin to understand the variability that exists in clinical practice and to develop a more comprehensive framework of physicians' potential roles. Second, the small sample confounds attempts to determine quantitative associations between physician and family characteristics and approaches to decision-making. Third, we examined the proportion of decisions that fit each of the four physician roles in decision-making, but these data are clustered under individual family conferences and individual physicians. However, restricting our analyses to one decision per physician did not alter the results. Finally, although this study documents variability in practice, it does not answer the question of whether this variability translates to different patient outcomes, family outcomes, or differences in the quality of decision-making. These are critical questions for future investigation. These empirical data also do not answer the normative ethical question of what role physicians should play in the decision-making process. However the empirical observations from the study suggest that flexibility and the ability to tailor one's approach to the complexities of individual families may be an important part of the answer to this question.

Our results suggest that there is a need to train physicians to elicit surrogates' preferred roles in decision-making and then individualize the role they play to the needs of the surrogate. The proposed framework is not intended to reduce decision-making to a formulaic interaction, but to sharpen our perceptions of the needs of surrogates facing the most difficult of decisions. We particularly hope that this framework will help clinicians recognize when surrogates prefer a collaborative approach and respond with recommendations that reflect the physician's medical expertise and the patient's values.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Demographic characteristics of patients, family members, and clinicians

Characteristics	Patients, n = 51 n (%)	Family members/Loved Ones, n = 169 n (%)	Physicians Leading Conferences, n = 35 n (%)
Gender			
Female	26 (51)	101 (60)	12 (34)
Male	25 (49)	68 (40)	23 (66)
Race/ethnicity ^a			
White	31 (61)	136 (81)	30 (86)
Black	7 (14)	14 (8)	0
Hispanic	2 (4)	6 (4)	2 (6)
Asian/Pacific Islander	1 (2)	5 (3)	4 (11)
Native American	1 (2)	10 (6)	0
Other/undocumented	9 (18)	0	1 (3)
Admission diagnosis		—	—
Intracranial hemorrhage	9 (18)		
End-stage liver disease/gastrointestinal bleed	8 (16)		
Trauma	8 (15)		
Sepsis/infection	7 (14)		
Respiratory failure	6 (12)		
Cardiac failure/myocardial infarction	5 (10)		
Other	8 (15)		
Relationship to patient	—		—
Spouse/partner		17 (10)	
Child		35 (21)	
Sibling		34 (20)	
Parent		20 (12)	
Friend		9 (5)	
Other relative		52 (31)	
Other		2 (1)	
Staff position	—	—	
Attending physician			20 (56)
Resident or fellow			16 (44)
Medical specialty	—	—	
Internal medicine			26 (74)
Neurology			5 (14)
Surgery			3 (7)
Anesthesia			1 (3)
	Mean (SD)	Mean (SD)	Mean (SD)
Age, yr	60 (20.3)	48 (15.8)	38 (9.5)
Years in practice	NA	NA	12.4 (9.7)

NA, not applicable.

^aSums are >169 family members and 35 physicians because some individuals identified with more than one race/ethnicity.

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Table 2**Organizing framework of physician roles in decision making**

Physician's Role	Description
Informative	<p>Provides medical information; does not engage in deliberations; does not make a recommendation</p> <p>Physician: "We need to readdress whether or not you feel that we should give her electric shocks, because it could keep her alive, but it would not enhance her functional recovery."</p> <p>Variation: After surrogate makes a decision, the physician expresses support for the decision</p> <p>Physician: "And I agree, I totally agree with your choice and our hope is that she will get better and we are going to keep doing everything that we can...possible to support her."</p>
Facilitative	<p>Provides medical information; elicits and articulates patient's values, clarifies principles of surrogate decision-making; highlights value-dependent nature of decision; reframes and summarizes surrogates statements about the patient's values; uses "hypothetical" recommendations to link values with particular decisions; refrains from providing a definitive recommendation</p> <p>Examples: Physician: "So it sounds like you are saying she might in this situation not have wanted really aggressive care, CPR, and shocks, and, again, I want to make it really clear if you decide to make her DNR, it does not mean that we are not going to support her exactly the way we are doing right now. The only thing it would mean is that if her heart did stop, we would not start it again. We would let her die."</p>
Collaborative	<p>Provides medical information; elicits patient's values; makes a treatment recommendation</p> <p>Examples: Physician: "I think your dad made it fairly clear what he would want and I think we all feel very comfortable saying that, that his problems at this point are terminal and that he, that his chance of survival is, is close to zero and if he were my dad or my grandfather, I would stop, and I feel very comfortable with that."</p>
Directive	<p>Offers minimal medical information; does not engage in deliberation; makes a treatment decision independently</p> <p>Examples: Physician: "Now, I have made her a no code. That means that if her heart is to stop or she is to stop breathing, we are not going to call a code team to pound on her chest and put a tube in her throat and start to support her because that would be cruel to do to a lady like this. It would be inappropriate medicine."</p>

Table 3**Diversity of belief about the appropriate balance of responsibility**

Physicians
<p>“Now in terms of our approach, the default is always being as aggressive as possible and we will continue to do that until advised otherwise by the family, in particular by you, because you are the legal next of kin and that puts all this responsibility on you.”</p> <p>“I think that this puts us in a place where we kind of, all of us together, need to decide what is in his best interests. That is where the next step is. If he never sat down and said, “ This is what I want.”” If he never did that, then that puts us in a position of having to take all of the information and decide together what’s in his best interests, which is hard.”</p> <p>“I think it is important that you do not feel like you are making this decision completely on your own. It is our medical thought that [stopping life support] would be probably a good thing to do and we would support that decision.”</p> <p>“It is important to all of us that you all, a year from now, can look back and say, we with the help of the doctors, we did the right thing. We, and what we are recommending to you, now, we are trying to take the weight of the world off your shoulders.”</p>
Surrogates
<p>Surrogate: “But I think it is really your decision. I really respect anything you do...”</p> <p>Physician: Yeah. Well, I promise you, I, I will help you. You’re not going to be put in a corner where you make a decision alone.</p> <p>Surrogate: I do not think I could.</p> <p>Surrogate: “I kind of feel that reviving her at this point would be sort of mean... but it certainly it has to be a mutual decision here with you [doctors].”</p> <p>Surrogate: “When the crisis comes, we will come back as soon as possible and we’ll take the responsibility of making a decision. I do not think a doctor should make that decision.”</p> <p>Surrogate: I am not only the legal next of kin but I have all the papers that we took care of, I have signed papers, I am totally 100% responsible.</p>

Table 4

Physicians' roles in decisions to limit life support

Physician Role	Seattle, Washington (derivation cohort; n = 63), N (%)	San Francisco, California (validation cohort; n = 99), N (%)
Informative	7 (11)	13 (13)
Facilitative	23 (37)	33 (33)
Collaborative	32 (51)	52 (53)
Directive	1 (1)	1 (1)