

How Do Medical Residents Discuss Resuscitation with Patients?

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OBJECTIVE: To describe how medical residents discuss do-not-resuscitate (DNR) orders with patients.

DESIGN: Prospective observational study.

SETTING: Inpatient medical wards of one university tertiary care center, one urban city public hospital, and one Veterans Affairs medical center.

PARTICIPANTS: Thirty-one medical residents self-selected 31 of their English-speaking, competent patients, with whom they had DNR discussions.

MEASUREMENTS: Three independent observers rated audiotaped discussions about DNR orders between the medical residents and their patients. Ratings assessed whether the physicians met standard criteria for requesting informed consent (e.g., disclosed the nature, benefits, risks, and outcomes), addressed the patients' values, and attended to the patients' emotional concerns.

MAIN RESULTS: The physicians often did not provide essential information about cardiopulmonary resuscitation (CPR). While all the physicians mentioned mechanical ventilation, only 55% mentioned chest compressions and 32% mentioned intensive care. Only 13% of the physicians mentioned the patient's likelihood of survival after CPR, and no physician used a numerical estimate. The discussions lasted a median of 10 minutes and were dominated in speaking time by the physicians. The physicians initiated discussions about the patients' personal values and goals of care in 10% of the cases, and missed opportunities to do so.

CONCLUSIONS: Medical ethicists, professional societies, and the public recommend more frequent discussions about DNR orders. Even when housestaff discuss resuscitation with patients, they may not be accomplishing the goal of increasing patient autonomy. Research and education must focus on improving the quality, as well as the quantity, of these discussions.

KEY WORDS: advance directives; communication barriers; ethics, medical; informed consent; physician-patient relations; resuscitation orders; residents.

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To respect patient autonomy at the end of life, physicians talk with patients about life-sustaining interventions and elicit their preferences. Professional guidelines and the Patient Self-Determination Act endorse such discussions.¹⁻⁵ However, these discussions will promote patient autonomy only if physicians communicate sufficient information for patients to make informed decisions. Patient autonomy will also be enhanced if decisions take into account the patient's gen-

eral values and goals and if patients perceive their physicians as concerned and empathic. A few small studies of such discussions suggest that physicians control the decision-making process and withhold information, but do not analyze in detail what information physicians provide to patients.⁶⁻¹⁰

Our objective was to determine how physicians discuss limiting life-sustaining treatments with patients. We studied conversations between medical residents and their hospitalized patients about do-not-resuscitate (DNR) orders for several reasons. Do-not-resuscitate orders are the most common form of limiting treatment. They pose difficult value choices: is the risk of an undignified death worth the small possibility—about 14% outside special care units—of being restored to life?¹¹ In our experience, housestaff are primarily responsible for these discussions on medicine services of teaching hospitals, with attending physicians sometimes merely signing the orders. Understanding how housestaff carry out discussions about DNR orders is a first step in improving them.

We asked several research questions. To what extent do these discussions meet the ethical and legal criteria for informed consent, which include disclosure about the nature, benefits, risks, outcomes, and alternatives of the proposed procedure?¹² Are patients' values and overall goals for care addressed in the decision-making process? Finally, do physicians attend to patients' emotional concerns?

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METHODS

Subjects

Internal medicine residents rotating on the inpatient medical services of three teaching hospitals from April 1, 1992, through October 30, 1992, were eligible for the study. Patients were eligible to participate if they spoke English, had not discussed resuscitation with a physician during the current hospitalization, and were judged by their physicians to be competent to make decisions. To ensure that all discussions were held in similar settings, we excluded encounters with patients in the outpatient areas, emergency departments, and intensive care units.

Design

Most DNR orders are written by the housestaff after a formal discussion with a patient about "code status." We designed this study to audiotape these discussions in their natural states. One of us (JAT) frequently appeared on the inpatient wards during morning work rounds to inquire about upcoming DNR discussions and to encourage housestaff to participate in the study. We told residents that we wanted to record discussions that they believed were essential to patient care, and asked them not to create discussions simply for the sake of the study. We distributed to all eligible housestaff bright yellow 3 × 5-inch index cards that described how to enroll eligible patients. To enhance recruitment, we brought each participating resident a gourmet snack the next on-call night after turning in a tape of a DNR discussion. We obtained informed consent from all participating physicians.

After the physicians identified eligible patients with whom they planned to discuss DNR, we asked these patients to participate in the study. We requested their consent to tape a discussion about what they may "want done if they become very sick and can no longer make decisions for themselves." At this time, we collected basic sociodemographic information. We also asked patients who refused to participate to provide these data. During the recruitment interview we referred all questions about advance directives and DNR orders to the patient's in-house physician.

After the patients consented to participate in the study, we asked their physicians to tape the upcoming conversations. A small portable tape recorder was always available at each hospital, and the participating physicians taped the discussions at their convenience. The investigators were not present at the discussions. Each resident taped one discussion.

After recording the discussions, the physicians completed a questionnaire about their experiences with DNR discussions and their demographic backgrounds. At the end of the six-month data collection period, we distributed the same survey to the remaining residents

who had been serving on the medical wards during that time but had not taped a discussion.

The University of California, San Francisco, Committee on Human Research approved this protocol, and strict confidentiality was maintained, with only the principal investigator knowing physician and patient identities.

Analysis of DNR Discussions

To analyze the audiotaped discussions, we developed a standardized, explicit coding system. We chose the specific outcome variables after reviewing the relevant literature,^{6, 7, 9, 12-15} observing numerous DNR discussions in practice, and conducting a focus group of eight physicians interested in medical ethics.

We defined outcome variables to assess the information provided about cardiopulmonary resuscitation (CPR), the communication process, and decision making. The codebook listed the variables in question format on one page, and illustrative examples for each variable category on the facing page. We refined the variables and the lists of examples by coding six pilot tapes of DNR discussions recorded by experienced geriatricians at a local nursing home. We used the final instrument containing 43 variables to code all of the study tapes (instrument is available from the authors on request).

Three psychology graduate students served as raters of the tapes, using the coding system developed by the primary investigators. They trained by coding each of the pilot tapes. When coding the study tapes, each rater worked independently and followed a strict protocol. The raters listened to each tape a minimum of four times, coding for different variables during the several reviews of the tape. All tapes were coded by the three raters. The final response for each variable was determined by agreement between two primary raters. In the case of disagreement, the third rater was used as a tie breaker. Interrater reliability was calculated for each variable using the kappa statistic generalized to multiple raters.¹⁶ Except in two cases, where the expected rate of agreement was higher than 90%, all the reported variables had a kappa value of at least 0.4 across all 31 tapes and three raters.

Descriptive statistical analyses were performed on all variables. Whenever possible, we collapsed ordinal categorical variables into dichotomous variables. We used the χ^2 statistic to analyze relationships between categorical variables. We used Student's t-test to analyze relationships between continuous variables.

RESULTS

Subjects

Of the 115 residents who were eligible for the study, 50 agreed to tape a DNR discussion and identified 60 prospective patients. Forty-six of these patients con-

Table 1
Demographic Characteristics of the Physicians (n = 31)

Age—mean (range)	28 (26–35) years
Gender—men	17 (55%)
Residency year*	
PGY-I	21 (68%)
PGY-II	6 (19%)
PGY-III	4 (13%)
Race	
White	21 (68%)
Asian-American	7 (23%)
African-American or Latino	3 (9%)
Planned specialty choice	
Medical subspecialty	13 (42%)
General internal medicine	11 (36%)
Other	7 (22%)

*PGY = postgraduate year.

sented to participate in the study, of whom 33 were taped. The remainder either were discharged or became acutely ill before a DNR discussion could be held. Two tapes were technically unusable, leaving 31 recorded conversations available for analysis.

Physicians

The mean age of the taped residents was 28 years. Slightly more than half were men and the majority were interns (Table 1). Eighty-seven percent stated that they discuss DNR decisions with all of their seriously ill patients, and, on average, these residents reported slightly fewer than one discussion per week. Sixty-seven of the 82 nontaped residents (82%) returned the survey instrument. No significant difference was found between the physicians who taped discussions and those who did not tape discussions but completed questionnaires. When asked why they had not taped a discussion, 42% responded that it was "too much of a hassle," 21% forgot about the study, and 16% felt self-conscious.

Patients

The average patient age was 53 years, and most were men (Table 2). Twenty-two were white and eight were African-American. There was no significant difference between the taped and the untaped patients for any of these sociodemographic variables.

Information about CPR

The Nature of CPR

A majority of the physicians mentioned the main components of CPR (Table 3). All the physicians mentioned mechanical ventilation, yet only 55% mentioned chest compressions. While the physicians frequently mentioned the various interventions, they did not al-

ways describe them in nontechnical language. The following quote is a typical description of CPR offered by houseofficers:

What I want to talk to you specifically about is the term do-not-resuscitate, DNR is what we call it, and that is, um, when something happens to a patient, when their heart stops beating, when their lungs stop moving air, or when they no longer can breathe. Medically and legally we as physicians are supposed to do everything we possibly can to sustain life—those things being chest compressions, perhaps shock therapy, shocking the chest wall to make sure that the heart begins to beat again, putting the tube down the throat and hooking that tube up to a ventilator. . . .

Benefits, Risks, and Likely Outcomes of CPR

The potential benefit of CPR is survival, yet only 13% of the physicians discussed with the patients the likelihood of survival after CPR. None gave a numerical estimate of survival or death. When the physicians did discuss outcomes, they used ambiguous language, as in the following examples:

. . . sometimes those efforts are traumatic, sometimes they're futile, and sometimes they're successful. . . .

. . . oftentimes, someone who's chronically ill, um, or is very sick in some other way, doesn't do very well when a big resuscitation attempt is made.

The risks of CPR were rarely discussed. Although survivors of CPR nearly always require intensive care, only 32% of the physicians mentioned this possibility,

Table 2
Demographic Characteristics of the Patients (n = 31)

Age—mean (range)	53 (32–79) years
Gender—men	25 (81%)
Race	
White	22 (71%)
African-American	8 (26%)
Latino	1 (3%)
Highest educational level	
Less than high school graduation	3 (10%)
Graduated high school	12 (40%)
Some college	12 (40%)
Graduated college or beyond	3 (10%)
Diagnosis	
Cancer	13 (42%)
AIDS	12 (38%)
Liver disease	3 (10%)
Other	3 (10%)
Hospital	
VA Medical Center*	11 (35%)
County hospital	11 (35%)
University hospital	9 (29%)

*VA = Veterans Affairs.

and only one described the potential for a prolonged intensive care unit stay. Thirteen percent of the physicians mentioned the possibility of adverse neurologic outcomes, and 16% mentioned other procedure-related complications such as broken ribs, throat damage from intubation, or general pain and suffering.

We observed considerable variability in how the physicians framed choices for patients. Two discussions with AIDS patients demonstrate this phenomenon. Both young men were recovering from their first episodes of *Pneumocystis carinii* pneumonia and faced statistically indistinguishable prognoses. One physician implied that the likelihood of survival after mechanical ventilation is high:

If, you, uh, for example, your pneumonia should have been worse; I think with the kind of infection that you have it would have been reasonable and certainly within the realm of a reversible condition to treat that, and I think you wouldn't be permanently on a ventilator or anything like that.

In contrast, the second physician gave an impression that the likelihood of survival after mechanical ventilation is low:

If you needed to go on a machine, I don't think we'd ever be able to get you off the machine.

The first patient stated a preference for intubation in the event of a future respiratory arrest, while the second patient declined the intervention.

Alternatives to CPR

Only two of the physicians explicitly told patients that should CPR be indicated, the only alternative is death. In fact, only 29% of the physicians mentioned the words "death" or "die." Others used some form of euphemism for death such as "would not survive," "come the end time," or "let you go." Thirty-two percent mentioned that comfort measures would be offered should the patient choose not to be resuscitated. Three of these physicians cited specific interventions such as pain control and medications to alleviate breathlessness.

The Communication Process

The median conversation lasted just over 10 minutes (range, 2.5 to 36.1 minutes). The physicians spoke for 73% of the time, and the median time the patients spoke was only 2 minutes, 36 seconds. Although the majority of the discussions took place in private settings, in 32% of the cases other conversations were easily heard in the background.

Specific Communication Techniques

The physicians used several techniques to help the patients make decisions. When the patients seemed not to understand, the physicians always made an effort to

Table 3
Information Provided by the Physicians about
Cardiopulmonary Resuscitation (CPR)

	No. (%) Physicians Mentioning Item (n = 31)
Nature of the procedure	
Mechanical ventilation	31 (100%)
Endotracheal intubation	26 (84%)
Cardioversion	21 (68%)
Chest compressions	17 (55%)
Intensive care	10 (32%)
Outcomes	
Likelihood of survival with CPR	4 (13%)
Numerical estimate of survival	0 (0%)
Risks	
Prolonged ICU* stay	1 (3%)
Adverse neurologic sequelae	4 (13%)
Procedure-related complications	5 (16%)
Alternatives	
Death	2 (6%)
Comfort measures	10 (32%)

*ICU = intensive care unit.

provide assistance. Twenty-nine percent asked about the patient's own past experiences to help that patient comprehend the decision about CPR. Twenty-six percent suggested that the patient discuss the issue with family members or friends, and 16% encouraged the patient to rediscuss the issue at a later time.

Patient Values and General Goals of Care

Only 10% of the physicians initiated discussions about the patient's personal values and general goals of care. For example, one physician asked his patient, "Have you taken the opportunity to think about how you would want to spend your last time?" Another physician began a discussion with his patient by saying, "Could you tell me a little more about yourself, like where you're from and what kind of background you come from?" Both of these questions led to further exploration of the patients' fears and hopes about their illnesses and treatments.

The patients frequently stated that they wished to be kept alive only if their "quality of life" was good. In these cases, the physicians and the patients agreed that once the patient's "quality of life" was unacceptably poor, care would be withheld or withdrawn. However, a "good quality of life" was never defined. The physicians and the patients appeared to assume that each understood what the other was talking about.

Missed Opportunities

The physicians in this study sounded caring and concerned. In the two instances when patients began to cry, both physicians reacted with compassion. We observed several examples of good skills in handling emo-

tions.^{17, 18} When one terminally ill patient, a farmer, expressed his fear that, "I'm right in the middle of 200 acres and I won't finish them," the physician responded, "That's tough to think about." Another patient, referring to the current hospitalization, said, "I thought I was going to die here." His physician responded, "How do you feel about that—does it scare you?"

Nevertheless, we observed many more missed opportunities to discuss patients' concerns and values.^{19–21} In one encounter, the physician encouraged the patient to talk, yet when the patient raised concerns about death, and even referred to suicide, the physician did not acknowledge those feelings (Dialogue 1, sidebar). Instead, he presented a new medical scenario and again asked the patient about his preferences for resuscitation.

Decision Making

All of the residents allowed their patients to choose whether they wished to have a DNR order written. Seventy-one percent gave no explicit recommendation, and the remainder offered only a mild recommendation. While none made strong recommendations, the physicians sometimes used other means to encourage a patient's decision or to change a patient's mind. Dialogue 2 (sidebar) provides an example of a physician who repeatedly asked directed questions that placed pressure on the patient to make a decision.

Thirty-nine percent of the patients in this study requested that a DNR order be written. At the other extreme, 19% asked to continue to receive all therapies ("full code"). In the middle, 29% chose to have a partial code or a time-limited trial of resuscitation. Thirteen percent of the patients postponed the decision, understanding that, in the meantime, all measures would be attempted if necessary. Disagreements between the physicians and the patients were noted by the raters in only eight cases. In four cases the physician tried to change the patient's mind. In the other four, the physician asked the patient to explain his or her position in more detail.

DISCUSSION

Cardiopulmonary resuscitation offers patients a small chance to be restored to life, at the risk of an undignified death. To make an informed decision about whether this benefit is worth the risk, a patient needs to understand the nature of CPR and the likelihood of various outcomes. Our results suggest that, because of shortcomings in communication, these conversations about CPR may often not achieve the goal of enhancing patient autonomy.

We identified several communication problems. First, the physicians did not provide enough information for the patients to make informed choices. Informed consent requires physicians to disclose the nature of an intervention, the risks and benefits, the alternatives, and the likely consequences.¹² In our study, only 13%

Dialogue 1 A Missed Opportunity

Patient: *I've already gone through periods where I happen to feel life isn't worth living already and I know that I'm far from being towards the end . . .*

Doctor: *Uh huh.*

Patient: *. . . but, um, and you know I have a few friends and the subject of self-deliverance turns up often and that their feelings usually always change the sicker that they get . . . they still want to hang on . . .*

Doctor: *Right.*

Patient: *. . . but, it's very discouraging, it's upsetting talking about this right now . . .*

Doctor: *Absolutely. Let me ask you, if right now you were to develop pneumothorax, which is a leak in your lungs, and because of that you became acutely short of breath, what we usually do in that case is put a chest tube in your lung to reexpand the lung, and if for one reason or another because of that you developed, let's say, another pneumonia on top of your Pneumocystis, or whatever, we would actually uh, probably put you on the ventilator. Now at this point I would think that your baseline health is pretty good and I would actually hope to be able to turn you around so that I would actually recommend you be put on the ventilator.*

of the physicians mentioned the likelihood of survival after CPR, and no one quantified these data. Qualitative terms of probability are ambiguous and interpreted inconsistently by different people.^{22, 23} When a physician says, "A lot of people do better; some won't," a patient might reasonably conclude that the likelihood of surviving CPR is akin to flipping a coin. In fact, only 7% to 14% of all patients hospitalized on general medical services who undergo CPR survive to hospital discharge.^{11, 24, 25} In subgroups of seriously ill patients, such as many in this study, even fewer survive. In one study of inpatients who had AIDS, only one of 43 patients who underwent CPR survived to hospital discharge.²⁶ Although predictions for any individual patient are inherently uncertain, aggregate data describing outcome can be presented to help patients make decisions. For example, patients who choose to be resuscitated often overestimate the success of CPR and change their minds after their misconceptions are corrected.^{27, 28}

Second, the physicians failed to elicit the patients' values and concerns. Instead, they questioned the patients repeatedly about specific procedures without adequately exploring the patients' goals. They rarely clarified the meaning of vague terms such as "quality of life," which may be viewed differently by patients with disabilities and their healthy physicians.^{29, 30} We endorse the suggestion that physicians first elicit patients' values, their goals for care, and their life preferences.^{9, 13} For example, does the patient care more about quality of life or quantity of life? Or, does the patient want to live to observe a specific event (such as to see the birth of a grandchild)? In this approach, specific decisions about resuscitation may unfold naturally from these general preferences. Probabilistic information about outcomes can help patients determine how much risk they are willing to assume to achieve their general goals.

Third, the physicians may have hindered the patients from raising concerns and fully discussing treatment preferences. The physicians dominated the discussions. The patients spoke, on average, less than 3 minutes, and were not encouraged to express themselves fully. In Dialogue 1, characterized as a "missed opportunity," the physician overlooked the patient's fears, concerns, and mention of suicide, and was focused on a decision about intubation. Instead, this physician could have made empathic comments, explored the patient's fears, and inquired how the patient defined an unacceptable quality of life.^{17, 31}

This study has several limitations. The presence of the tape recorder may have influenced the discussions if the physicians tried consciously to perform better. If this occurred, the bias actually strengthens our findings because communication problems in DNR discussions would be underrepresented. We analyzed only 31 discussions by 27% of the available housestaff. The residents who participated in the study were likely those most confident in their communication skills and may have even selected patients with whom it was easy to talk. Yet our study is the largest to date and the only one to characterize in detail the information provided to patients about the DNR decision. Only two, smaller studies have recorded discussions about life-sustaining interventions.^{8, 10} The low participation rate in our study reflects the difficulty identifying appropriate discussions rather than a high rate of physician refusal. There is no reason to believe that the nontaped physicians would have performed better. Indeed, if some physicians declined to participate because they were self-conscious about being taped or not confident in their skills, they would show at least as many shortcomings as would those physicians who agreed to be taped.

Nearly 40% of the patients in our study were young men with AIDS. It is likely that this sample would bias the study toward better conversations, because in San Francisco such patients are typically well-educated, well informed about treatment choices, and eager to make decisions about their care. We cannot generalize our

results to physicians in practice, who have more experience and longer relationships with their patients. However, in managed care, experienced physicians may need to conduct DNR discussions with patients they have known only briefly.

Finally, we did not study the patients' perspectives on these conversations. We do not know how much they understood of these discussions, whether they were sat-

Dialogue 2 Placing Pressure on a Patient to Make a Decision

Doctor: *If you ever got so sick that you just couldn't breathe on your own, would you want to be kept comfortable and go and leave this world, or would you want to be prolonged artificially on this breathing machine?*

(The patient and physician deliberated for several minutes.)

Patient: *I'll tell you the truth, I don't know which one; I can't decide. Whichever one they think is better, for better or for worse, I don't want it. Other than that I don't know.*

Doctor: *Right. But would you want people to come in here and pound on your chest and put a tube down your throat to keep you alive?*

Patient: *No, I wouldn't want all that beating.*

Doctor: *No. Are you sure about that?*

Patient: *I don't know—I hope I never have it.*

Doctor: *Okay, well someday you will. 'Cause someday we all die.*

Patient: *I know, but I hope I won't have to have that.*

Doctor: *So you would never want to have that pounding on your chest?*

Patient: *No, 'cause I don't think I could stand it.*

Doctor: *Or, what about the electric shock on your chest?*

Patient: *I don't understand either one of 'em. Both of 'em is bad and both of 'em is good, so I don't know.*

(A similar discussion continued.)

Patient: *See, you keep asking the same thing over and over.*

ified with their care, whether they felt listened to, and how they would improve these discussions. This is an important area for further research.

Much research in ethics has focused on the appropriate use of DNR orders and urges more frequent discussions with patients about this issue. This study demonstrates that even when physicians discuss resuscitation with patients, they may not accomplish the goal of increasing patient autonomy. We must focus research and education on improving the quality, as well as the quantity, of these discussions. For example, future research should examine what information patients want to know about resuscitation and what communication approaches best enhance patients' decision-making ability.

Yet, even before these questions are fully answered, we can suggest how to improve physician-patient communication about resuscitation decisions. Physicians should give patients a balanced presentation of the options, including a jargon-free description of CPR and its risks and benefits and relevant outcome data. Both numerical and qualitative expressions of probability should be given, and physicians should avoid bias in framing data.¹⁵ An objective presentation of options does not preclude giving a recommendation. While patients want to receive as much information as possible about prospective treatments, they also want physicians to share in decision making and to state an opinion.^{32, 33} In addition, physicians should make discussions about CPR relevant to the patient's personal experience. A more patient-centered approach, using open-ended questions and empathic listening, will help physicians focus on the patient's concerns and goals for care.^{17, 34} To achieve our goal of promoting patient autonomy, physicians need to improve the quality of conversations about life-sustaining interventions.

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REFERENCES

1. ACP Ethics Subcommittee. American College of Physicians ethics manual. Third edition. *Ann Intern Med.* 1992;117:947-60.
2. American Heart Association. Guidelines for cardiopulmonary resuscitation and emergency cardiac care, VIII: ethical considerations in resuscitation. *JAMA.* 1992;268:2282-8.
3. American Thoracic Society. Withholding and withdrawing life-sustaining therapy. *Ann Intern Med.* 1991;115:478-85.
4. Council on Ethical and Judicial Affairs of the AMA. Guidelines for the appropriate use of do-not-resuscitate orders. *JAMA.* 1991;265:1868-71.
5. U.S. Congress. Patient Self-Determination Act. 1990 Omnibus Budget Reconciliation Act (OBRA); (PL 101-508).
6. Miles SH, Bannick-Mohrland S, Lurie N. Advance-treatment planning discussions with nursing home residents: pilot experience with simulated interviews. *J Clin Ethics.* 1990;1:108-12.
7. Miller A, Lo B. How do doctors discuss do-not-resuscitate orders? *West J Med.* 1985;143:256-8.
8. Miller DK, Coe RM, Hyers TM. Achieving consensus on withdrawing or withholding care for critically ill patients. *J Gen Intern Med.* 1992;7:475-80.
9. Ventres W, Nichter M, Reed R, Frankel R. Do-not-resuscitate discussions: a qualitative analysis. *Fam Pract Res J.* 1992;12:157-69.
10. Ventres W, Nichter M, Reed R, Frankel R. Limitation of medical care: an ethnographic analysis. *J Clin Ethics.* 1993;4:134-45.
11. Moss AH. Informing patients about cardiopulmonary resuscitation when the risks outweigh the benefits. *J Gen Intern Med.* 1989;4:349-55.
12. Appelbaum PS, Lidz CW, Meisel A. *Informed consent: legal theory and clinical practice.* New York: Oxford University Press, 1987.
13. Doukas DJ, McCullough LB. The values history: the evaluation of the patient's values and advance directives. *J Fam Pract.* 1991;32:145-53.
14. Lo B. Unanswered questions about DNR orders. *JAMA.* 1991;265:1874-5.
15. McNeil BJ, Pauler SG, Sox HC, Tversky A. On the elicitation of preferences for alternative therapies. *N Engl J Med.* 1982;306:1259-62.
16. Fleiss JL. Measuring nominal scale agreement among many raters. *Psychol Bull.* 1971;76:378-82.
17. Smith RC, Hoppe RB. The patient's story: integrating the patient- and physician-centered approaches to interviewing. *Ann Intern Med.* 1991;115:470-7.
18. Spiro H. What is empathy and can it be taught? *Ann Intern Med.* 1992;116:843-6.
19. Branch WT, Malk TK. Using 'windows of opportunities' in brief interviews to understand patients' concerns. *JAMA.* 1993;269:1667-8.
20. Platt FW. *Conversation failure: case studies in doctor-patient communication.* Tacoma, WA: Life Sciences Press, 1992.
21. Quill TE. Recognizing and adjusting to barriers in doctor-patient communication. *Ann Intern Med.* 1989;111:51-7.
22. Kong A, Barnett GO, Mosteller F, Youtz C. How medical professionals evaluate expressions of probability. *N Engl J Med.* 1986;315:740-4.
23. Nakao MA, Axelrod S. Numbers are better than words: verbal specifications of frequency have no place in medicine. *Am J Med.* 1983;74:1061-5.
24. Bedell SE, Selbanco TL, Cook EF, Epstein FH. Survival after cardiopulmonary resuscitation in the hospital. *N Engl J Med.* 1983;309:579-86.
25. Taffet GE, Teasdale TA, Luchi RJ. In-hospital cardiopulmonary resuscitation. *JAMA.* 1988;260:2069-72.
26. Raviglione MC, Battan R, Taranta A. Cardiopulmonary resuscitation in patients with the acquired immunodeficiency syndrome: a prospective study. *Arch Intern Med.* 1988;148:2602-5.
27. Murphy DJ, Burrows D, Santilli S, et al. The influence of the probability of survival on patients' preferences regarding cardiopulmonary resuscitation. *N Engl J Med.* 1994;330:545-9.
28. Schonwetter RS, Walker RM, Kramer DR, Robinson BE. Resuscitation decision making in the elderly: the value of outcome data. *J Gen Intern Med.* 1993;8:295-300.
29. Danis M, Gerrity MS, Southerland LI, Patrick DL. A comparison of patient, family, and physician assessments of the value of medical intensive care. *Crit Care Med.* 1988;16:594-600.
30. Uhlmann RF, Pearlman RA. Perceived quality of life and preferences for life-sustaining treatment in older adults. *Arch Intern Med.* 1991;151:495-7.
31. Lipkin M Jr. The medical interview and related skills. In: Branch WT (ed). *Office Practice of Medicine.* Philadelphia: W. B. Saunders, 1987;1287-306.
32. Ende J, Kazis L, Ash A, Moskowitz MA. Measuring patients' desire for autonomy: decision making and information-seeking preferences among medical patients. *J Gen Intern Med.* 1989;4:23-30.
33. Strull WM, Lo B, Charles G. Do patients want to participate in decision making? *JAMA.* 1984;252:2990-4.
34. Lipkin M Jr, Quill TE, Napodano RJ. The medical interview: a core curriculum for residencies in internal medicine. *Ann Intern Med.* 1984;100:277-84.