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Training Nurses for Interdisciplinary Communication with Families in the Intensive Care Unit: An Intervention

Nina S. Krimshtein, M.D.,[1] Carol A. Luhrs, M.D.,[2] Kathleen A. Puntillo, R.N., DNSc, FAAN,[3]
Therese B. Cortez, M.S.N., N.P., ACHPN,[2] Elayne E. Livote, M.P.H., M.S., M.A.,[4]
Joan D. Penrod, Ph.D.,[4] and Judith E. Nelson, M.D., J.D.[1]

Abstract

Background: Critical care nurse communication training has largely been limited to didactic materials, interactive training for nurse supervisors, or brief participatory learning programs within the context of comprehensive end-of-life care educational seminars. Preliminary evidence suggests that an interactive approach can also be effective in communication skills training for intensive care unit (ICU) nurses.
Methods: We implemented a 1-day educational intervention in five acute care hospitals within Veterans Integrated Service Network (VISN) 3 (New York-New Jersey region) of the Department of Veterans Affairs and focused solely on communication skills and targeted specifically to nurses providing bedside care for critically ill patients. A "learner centered" approach to skills training that has several integral components was employed. Among these are: a cognitive, evidence-based foundation upon which to build new skills; a method such as role-play that allows participants to practice newly learned skills; and an affective component, during which trainees can freely discuss their impressions of the exercise or explore difficulties that may have been encountered. Before and after the program we conducted a detailed assessment of participants' self-rated communication skills and of the techniques and materials we used.
Results and conclusions: Post-program responses documented significant improvement in self-evaluated skills for each of the core tasks we assessed. Evidence suggests that communication with patients and families in the ICU can be most effectively approached in an interdisciplinary way. For nurses to fully realize their potential for optimal communication as members of the multidisciplinary team, they must be equipped with the necessary skills. We believe this new program helps to expand the range of approaches for training nurses in essential communication skills.

Introduction

Timely and effective performance of an interdisciplinary meeting with the family of a critically ill patient has come to represent a standard of quality care in the intensive care unit (ICU).[1] Prior studies highlight the importance of collaborative care by physicians, nurses, and other members of the health care team.[2,3] Such care has been shown to improve patient outcomes as well as patient and family satisfaction in the ICU.[4-8] To optimize effectiveness, communication with ICU families should include nurses as active participants. Yet few interventions have been specifically designed to educate ICU nurses in skills needed for this role.

Critical care nurse communication training has largely been limited to didactic materials, interactive training for nurse supervisors, or brief participatory learning programs within the context of comprehensive end-of-life care educational seminars.[9-11] For physicians at every level, skills training programs have shown the importance of active participation by learners, which is associated with improved skill and increased retention of information.[12-15] Preliminary evidence suggests that an interactive approach can also be effective in communication skills training for ICU nurses. However, to our knowledge, no previous study has evaluated an intervention using this approach specifically to train bedside nurses for participation in

[1]Mount Sinai School of Medicine, Division of Pulmonary and Critical Care, New York, New York.
[2]Department of Veterans Affairs–New York Harbor Healthcare System, Brooklyn, New York.
[3]University of California San Francisco, Department of Physiological Nursing, San Francisco, California.
[4]James J. Peters VA Medical Center, Bronx, New York.
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interdisciplinary meetings with families of critically ill patients under their care.

Bedside nurses are in a unique position to understand the needs and preferences of ICU patients and families, to provide information to them, and to foster communication among patients, families, and other members of the clinical team.[16] With an appreciation for this important role, we developed and evaluated a program to train critical care nurses to participate fully along with physicians and other members of the interdisciplinary team in meetings with ICU families.

Table 1. The Four Cs: Key Components of the Nurse's Role in ICU Family Meetings

Convening	Making sure a family meeting takes place
Checking	Sensitive interpretation and clarification of information exchanged between the patient/family and physicians
Caring	Naming emotions and responding to feelings
Continuing	Following up with patient/family and physicians after the meeting

Methods

We conducted this project in five acute care hospitals within Veterans Integrated Service Network (VISN) 3 (New York-New Jersey region) of the Department of Veterans Affairs. The need for institutional review board approval and for informed consent for participation was waived as the project was an educational component of a larger initiative to improve the quality of palliative care within the VISN's ICUs. Among critical care staff nurses at each of the VISN-3 acute hospitals, the local ICU nurse manager identified a group that would be representative of different shifts, available to attend without compromising unit staffing levels, and open to participation. Training was offered to all such nurses without cost to the individual participants, who were relieved of their usual staff duties to permit them to attend.

Skills training program

The training was given in a 6-hour session at each of the five hospitals, with two sessions per hospital to accommodate as many participants as possible while limiting the size of participant groups (we targeted groups of approximately 10 nurses to maximize active participation by all learners). All sessions were facilitated by the same faculty members: a physician specializing in intensive care and palliative medicine with experience in communication skills training (JN), and a doctorally prepared nurse with expertise in ICU palliative care and communication skills training (KP). The director of palliative care for the VISN (CL), who is a specialist in oncology and palliative medicine, and an advanced practice palliative care nurse who is the palliative care program manager for VISN-3 (TC) attended each session.

We used evidence-based pedagogical methods in the training sessions. Initially, we facilitated a discussion in which the nurses were asked to summarize their main personal learning goals for the session. Didactic material was limited to three brief presentations (each less than 20 minutes) addressing: 1) roles and responsibilities of the ICU nurse in communication with patients and families; 2) strategies for recognizing and dealing with strong emotions experienced by families and health care professionals during a patient's critical illness; and 3) causes of and approaches to conflicts arising between families and clinicians and within the health care team. In the first presentation, key components of the nurse's role in ICU family meetings were summarized as "The Four C's" (Table 1): **C**onvening (helping to ensure that clinicians actually meet with the family in a timely way), **C**hecking (inquiring and interpreting during the meeting to confirm that the family understands the discussion and has an opportunity to voice concerns, and that the clinicians understand the family), **C**aring (providing support for the family and assisting other clinicians with emotional challenges of communicating about critical illness), and **C**ontinuing (following up to ensure that discussions continue until issues are resolved, that other clinicians and family members are aware of the content of these discussions, and that decisions are implemented as discussed). For dealing with strong emotions, the presentation focused on the NURSE acronym suggested by Pollak et al.[17] for explicit communication of empathy: **N**ame the emotion to make clear that it is recognized; express **U**nderstanding in an open and compassionate way; show **R**espect for the person experiencing the emotion; communicate **S**upport; and **E**xplore the emotional experience of the other person in greater depth (Table 2). The third presentation offered an algorithmic approach to identifying causes of conflict in the ICU and tools to diffuse conflict and forge cooperative alliances.

Most of the training session was devoted to role-playing exercises based on two case scenarios developed by the faculty to represent communication challenges that commonly arise in ICU practice. Because few of the nurses had previously participated actively in ICU family meetings, we deliberately focused on basic skills and demonstrated the role-playing approach in a preliminary exercise in which only the faculty participated. The case descriptions, limited to a half page each, were distributed to participants during the session (an example of a case description is included in the Appendix). Both cases provided a context for an ICU family meeting and included roles for an ICU physician, a staff nurse, and a family member, all to be played on a voluntary basis by the nurse participants in the session.

For the role-playing exercises, we used a variety of strategies to overcome reluctance to participate and to foster an atmosphere of openness, safety, and respect for participants, including emphasizing that all participants were to maintain confidentiality. We also offered the option to call a "time out" at any point during any exercise to allow the participant to request help from other participants and/or from faculty. Faculty used time out opportunities themselves to focus

Table 2. The NURSE Mnemonic for Communicating Empathy

	Representative language
Naming	"It sounds like…"
Understanding	"I'm hearing you say…"
Respecting	"I am impressed that…"
Supporting	"I'll be available for you…"
Exploring	"Tell me more about…"

Source: Pollak et al.[17]

attention on specific exchanges or statements during the role-playing, reinforcing ideas and skills covered in the earlier didactic presentations.

In addition to training nurses to communicate with families, an important focus of the project was to encourage participants to extend these skills to communication with physicians. Thus, in the role-playing exercises, we emphasized skills for expressing to the physician the importance of timely communication with the family about the patient's condition and prognosis and about appropriate goals of care in relation to the patient's illness and treatment preferences. We also encouraged participants to recognize and communicate to physicians the unique contributions that they as nurses could make to discussions and decision making about care goals. For example, because they spend hours at the bedside with patients and family members, nurses often have valuable information and impressions about family history, dynamics, and concerns. Finally, we suggested that one barrier to effective communication by physicians with families might relate to challenges of confronting strong emotions and conflict. We addressed ways in which nurses could assist physicians in overcoming these barriers using the skills and strategies they practiced in our sessions.

When not playing a role, participants were instructed to observe and listen closely so that they could provide feedback. We modeled positive feedback and asked participants to comment on "what they liked" and "what seemed to work well" during the role-playing exercises.

Evaluation

At the start of the training sessions, we administered an anonymous Pre-Program Questionnaire asking participants to rate their skills (5-point scale, from 1 = Excellent to 5 = Poor) on 10 tasks relating to communication between clinicians and families of ICU patients. Skill items included "ensuring that the family has an opportunity to meet with the physicians who are important to the patient and/or family," "ensuring that, in a family meeting, the ICU team investigates the values, goals, and preferences of the patient," and "being an active, contributing participant of an interdisciplinary meeting with the family." This questionnaire also asked how frequently in regular practice (5-point scale, from 1 = Almost constantly to 5 = Almost never) the participant was confronted with questions from patients and families about the patient's condition or care that the participant felt unable to answer, believed they should not answer, or felt uncomfortable answering. In addition, the questionnaire asked participants to rate their level of confidence (4-point scale, from 1 = Very confident to 4 = Not very confident) in voicing their concerns to the ICU physician about a variety of issues relating to patient care. Our interdisciplinary study team adapted this questionnaire from a tool developed using rigorous methods for research evaluation of a national program to train intensive care physicians in family meeting communication skills.[18] We conducted formal pre-testing of our instrument with a sample of four nurse members of the ICU palliative care committee at the University of California, San Francisco Medical Center.

At the close of the training session, participants completed an anonymous Post-Program Questionnaire in which they again rated their communication skills and provided feedback in response to closed-ended and open-ended questions about the program's content and its value for improving the participant's communication skills. We also conducted an informal debriefing in which participating nurses were invited to identify specific skills that they planned to practice in future family meetings and to share their views and experiences about interdisciplinary communication with ICU families and about our training program.

Analysis

Eight questions in the skills rating section appeared on both the Pre-Program and Post-Program Questionnaires. Because the questionnaires were anonymous, and terms of the sponsor's support for this project precluded matching of pre- and post- questionnaires for individual participants, we compared the responses using independent sample statistics. Specifically, we used the χ^2 trend test,[19] which takes advantage of the ordinality of the responses and tests for the tendency of the responses in one group to be higher than the other group. For the remaining closed-ended questions, we examined the distribution of responses using frequency counts and percentages.

Results

Between June 2009 and May 2010, we conducted 10 training sessions at the five sites in VISN-3, in which a total of 99 ICU nurses participated. This group represented approximately 60% of the ICU nurses in VISN-3; no nurse declined the invitation of the nurse manager to attend. Group size ranged from 7 to 15 nurses. All participants worked in mixed medical and surgical ICUs in the VISN except two nurses who worked exclusively in a surgical ICU. Pre-Program Questionnaires were distributed to 99 participants, of whom 74 (74.7 %) returned responses. Post-Program Questionnaires were distributed to 89 participants, of whom 74 (83.1 %) returned responses. For six of eight core tasks assessed before training (Table 3), more than one-quarter of the nurses rated their skills as poor or fair. At least half of the nurses identified opportunities to improve skills necessary to complete each of these tasks. In addition, nurses reported that patients or families frequently asked them questions about the patient's condition, treatments, prognosis, or the goals of the patient's care that the nurses were "unable to answer," felt they "should not answer," or were "uncomfortable answering" (41%, 39%, 25% of nurses, respectively) (Table 4).

Post-program responses documented significant improvement in self-evaluated skills for each of the core tasks we assessed (Table 3). The proportion of nurses self-rating skills as very good or excellent increased from an average of 41% (range 30.1%–56.8%) across all eight tasks to an average of 73.8% (range 66.7%–81.7%), $p < 0.01$ (Table 3). Responding nurses universally found the case scenarios to be realistic and relevant to their clinical practice and rated the educational value of the program highly, selecting either the highest (most positive) or second highest rating on a 5-point numerical scale (Table 5). One-hundred percent of participants stated they would recommend the program to nurse colleagues. Nearly all respondents (70/72, 97.2%) agreed that, after participating in the training, they had an increased awareness of their full role as members of the interdisciplinary team (Table 6). They felt more confident voicing their concerns about patient care

Table 3. Skills Rated by Critical Care Nurses before and after Communication Training

Skill	*Pre* N (%)	*Post* N (%)	P *value*
1. Communicating to the ICU physician the family's communication needs	42 (56.8)	58 (81.7)	0.0004
2. Communicating to the primary (non-ICU) physician the family's communication needs	32 (45.1)	47 (70.2)	0.0005
3. Promoting consistency of communication by various clinicians speaking to the family	22 (30.1)	53 (73.6)	<0.0001
4. Ensuring that the family has an opportunity to meet with the physicians who are important to the patient and/or family	37 (50.0)	54 (75.0)	0.0023
5. Ensuring that the family has an opportunity to meet with an interdisciplinary team that includes the nurse, members from other disciplines, and the physician	25 (34.3)	48 (66.7)	<0.0001
6. Being an active, contributing participant of an interdisciplinary meeting with family	34 (48.6)	57 (80.3)	<0.0001
7. Ensuring that, in a family meeting, the ICU team investigates the values, goals, and preferences of the patient	25 (35.2)	49 (68.1)	<0.0001
8. Ensuring that, in a family meeting, the ICU team addresses the emotional needs of the family	24 (33.8)	54 (75.0)	<0.0001

The Post-Program Questionnaire was not distributed to the first group of nurses trained (10 nurses).

Nurses rated skills on a 5-point verbal descriptor scale: Excellent, Very Good, Good, Fair, Poor. The table presents the number and percentage of nurses rating their skills as Excellent or Very Good.

and communication, better able to initiate an interdisciplinary family meeting, and less anxious about taking part in these meetings (Table 6).

Nurses provided qualitative feedback on the Post-Program Questionnaire regarding aspects they liked and disliked about the program and what they would add or change about the format. They commented most frequently (31 nurses) that they liked the role-play portion of the program, and many (16 nurses) suggested that future training sessions should include physicians (attending and house staff) in addition to nurses as participants. A comment by one nurse echoed a response expressed by others across all groups involved in the training: "I finally feel like I have a voice."

Discussion

This report describes a new training program to enhance nurses' skills for interdisciplinary communication with ICU physicians and families of patients in the ICU. Using evidence-based pedagogical methods, we implemented a 1-day educational intervention focused solely on communication skills and targeted specifically to nurses providing bedside care for critically ill patients. We sought to equip these nurses to realize their full potential as members of the interdisciplinary team, working together with physicians and other health professionals to communicate effectively and sensitively in ICU family meetings. The participants' ratings of the program and its impact on their skills indicate that this intervention can form a valuable part of the education of critical care nurses.

Communication skills are both teachable and learnable. As with training of other skills, communication skills are optimally taught by active participation of trainees. We employed a "learner centered" approach to skills training,[20,21] which has several integral components. Among these are: a cognitive, evidence-based foundation upon which to build new skills; a method such as role-play that allows participants to practice newly learned skills; and an affective component, during which trainees can freely discuss their impressions of the

Table 4. Nurses' Reports (Pre-t) about Responding to Patient and Family Questions

"How frequently do patients/families ask you questions about the patient's condition, treatments, prognosis, or the goals of the patient's care that you…"

	Frequently[a] N (%)	*Occasionally* N (%)	*Infrequently*[a] N (%)
Are unable to answer?	30 (41)	23 (32)	20 (28)
Feel you should not answer?	28 (39)	30 (42)	14 (19)
Feel uncomfortable answering?	18 (25)	35 (49)	19 (26)

[a]The scale on the Pre-Program Questionnaire for these items included five possible responses: Almost Constantly, Often, Occasionally, Rarely, Almost Never. For this table, we combined the responses Almost Constantly and Often as "Frequently," and Rarely and Almost Never as "Infrequently."

Table 5. Nurses' Ratings of Communication Skills Training Program

	% of nurses (N=74) rating at highest levels on scale[a]	
	Rating=1	*Rating=2*
Case studies realistic	98.5	1.5
Case studies relevant	97.1	2.9
Overall educational value	83.8	16.2

[a]Nurses rated these aspects of the program on 5-point numerical scales with "1" indicating the most positive response and "5" indicating the most negative response. The table shows the percentage of nurses providing the two most positive ratings for each item. All nurses rated the case studies and educational value of the program either 1 or 2 on the 5-point scale.

Table 6. Impact of Training Program as Reported by ICU Nurses

	N[a] (%)
Improved ability to bring families and physicians together with the nurse or another member of the ICU team for an interdisciplinary ICU family meeting	71 (98.6)
Increased awareness of your role in ICU communication with families	70 (97.2)
More confident to participate in an interdisciplinary ICU family meeting	72 (100)
Less anxious about participating in an interdisciplinary ICU family meeting	69 (97.2)
More confident to voice concerns about the extent to which family communication needs are being met	72 (100)
More confident to voice concerns about the goals of care for an ICU patient to whom you are assigned	72 (100)
More confident to voice concerns that an ICU patient is receiving care for which the burdens seem to outweigh benefits	70 (98.6)

[a]Some participants did not answer all items.

exercise or explore difficulties that may have been encountered.[20] Eighty-five percent of the program was devoted to role-playing exercises in which nurses practiced and refined their skills with close supervision and constructive feedback from experienced faculty and from peers.

The value of interactive training programs has been demonstrated among nurses and physicians at various levels of training and experience.[12-15,22] In a randomized controlled trial of communication skills training for oncology physicians, Fallowfield and colleagues found that an intervention combining didactic instruction and role-play led to lasting improvements in the use of open-ended questions, appropriate responses to patients' cues, and the expression of empathy.[12] Negative communication behaviors, such as interrupting, were shown to decrease. These skills were sustained for one year after the initial training.[23]

To date, there are limited opportunities for bedside intensive care nurses to participate in rigorous communication training. An intervention to enhance communication skills among nurse leaders and physicians in two ICUs led to improvements in demonstrated and perceived skills.[10] These outcomes correlated with a decrease in stress among staff nurses, but the staff nurses themselves did not participate in the intervention.[10] The End-of-Life Nursing Education Consortium (ELNEC)-Critical Care represents the first comprehensive palliative care curriculum for ICU nurses.[9] ELNEC-Critical Care encompasses several universal themes, one of which is that an interdisciplinary approach is essential for quality care. Although communication is part of the ELNEC-Critical Care curriculum, other topics are also covered, most material is presented in lecture format, and small-group training with intensive communication skills practice is not feasible in the program. Shannon et al.[24] recently reported on a 90-minute session including interactive exercises that they presented on tools to "Manage End-of-Life Conversations" at an annual conference of a critical care nursing association in Europe. Some participants provided written comments indicating that the tools were relevant to their practice.

Our program focused specifically on enhancing skills for active participation by nurses in interdisciplinary communication with ICU families. With a faculty including both nurse and physician representation, we provided a comprehensive workshop in a relatively short time frame (6 hours including a lunch break) in a clinical environment. We framed this program to address not only end-of-life care but a broader range of skills needed for effective and compassionate communication by the interdisciplinary team with all patients and families receiving treatment in the ICU, as well as within the team. At the same time, we addressed specific roles for critical care nurses in interdisciplinary family meetings. Finally, we conducted a detailed assessment of participants' self-rated communication skills before and after the program and of the techniques and materials we used. We believe this new program helps to expand the range of approaches for training nurses in essential communication skills.

Communication by an interdisciplinary team is identified by patients and families as a key element of high-quality ICU palliative care.[25] Performance of an interdisciplinary family meeting has been accepted and validated as a core indicator of quality care for critically ill patients and their families.[26,27] In order to implement this standard in clinical practice and to encourage nurses to participate and contribute actively to these meetings, nurses need training in communication skills. An "intensive communication" strategy within one ICU,[7] where multidisciplinary patient/family meetings were mandated within 72 hours of ICU admission, had a significant and lasting impact on length of stay in the ICU and resulted in earlier transition to palliative care where appropriate.[8] Effective introduction of a multidisciplinary family meeting has also been shown to decrease health care costs in the ICU at the end of life and enhance family satisfaction.[5,6]

Spending more time at the bedside than any other member of the interdisciplinary team, nurses serve an important and unique role that includes participation in communication and decision making.[28] As a member of the ICU team, "the nurse is in a more privileged position for fostering…communal decisions" regarding patient care.[16,29] Nurses are often first to become aware of distressing symptoms and other concerns, and to gain knowledge of the patient as a person. Their intimate role at the bedside also gives them insights into the family that may not be evident to other members of the team.[30,31] Information and education provided by nurses can have a significant impact on decision making for critically ill patients.[32,33] Moreover, professional nursing societies include communicating about goals of care among the responsibilities of the ICU nurse,[11,34] and many nurses are comfortable embracing this role.[35] Time constraints and continuity of care are known barriers for timely and effective communication by physicians with patients and families in the ICU.[36,37] Although time constraints exist for busy ICU nurses as well, nurses can help to overcome these barriers to communication and contribute in important ways to effective communication.

The role of the nurse in "shuttle diplomacy"[38] (i.e., acting as interpreters between various groups in the ICU) presents an opportunity for nurses to meet their fullest potential as members of the ICU multidisciplinary team. Unless nursing involvement is accompanied by active and effective participation in communication about goals of care, the role of

interpreter can also contribute to nursing moral distress and job burnout.[29,39] Several studies demonstrate that nurses experience distress when they perceive the plan of care for their patient to be excessively burdensome in relation to potential benefits, or to be inconsistent with the patient's values and preferences.[31,40] The problem may be magnified when input from the nurse is not obtained or not valued in decision making. Including nurses as essential participants in family meetings as well as multidisciplinary rounds, and training them to communicate effectively as part of the interdisciplinary team, may help to mitigate nursing distress and burnout.[41]

There were several limitations to this pilot study. First, all participants were nurses in ICUs in Department of Veterans Affairs hospitals in the same geographic region (northeastern United States). However, the techniques we used have been used successfully in many different settings to train health care professionals in communication skills; thus, we believe they are broadly applicable to nurses in any ICU setting. Second, we were not able to observe or evaluate a direct impact on the clinical practice of nurses involved or on patient care, nor did we objectively measure the nurses' skills; this was beyond the breadth of the present study, but will be an important area of further investigation. Third, we did not obtain completed responses to our questionnaires from all nurses who participated; thus, some nonresponding participants might have answered differently. Fourth, the strict requirement of anonymity precluded matching individual nurses' pre- and post- questionnaires. Fifth, our faculty members were experienced in ICU communication skills training. This expertise may not be locally available at all institutions, but trainer programs are increasingly available. Finally, we did not have the opportunity to compare the effectiveness of training nurses separately versus training them together with physicians. We plan future training in interdisciplinary sessions to foster an educated team approach to ICU clinician-patient-family communication.

Conclusion

Effective communication is an essential component of high-quality care in the ICU. Evidence suggests that communication with patients and families in the ICU can be most effectively approached in an interdisciplinary way. In order for nurses to fully realize their potential for optimal communication as members of the multidisciplinary team, they must be equipped with the necessary skills. An in-depth, focused, and evidence-based training program such as ours holds promise as a useful educational strategy for developing ICU nurses' communication expertise and prepares them to be more active members on the interdisciplinary team.

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Author Disclosure Statement

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Address correspondence to:
Judith E. Nelson, M.D., J.D.
Mount Sinai School of Medicine
Pulmonary and Critical Care
1 Gustave Levy Place
New York, NY 10029

E–mail: judith.nelson@mountsinai.org

(*Appendix follows* →)

Appendix

Example of representative case for group role-play

Mr. F. is a 57-year-old man who had a subarachnoid hemorrhage due to a cerebral aneurysm; he underwent surgical clipping 3 days ago. The neurosurgeon was satisfied with the result and assured the spouse on the day of surgery that her husband would soon be neurologically intact. He was slowly regaining consciousness and opened his eyes by the third postoperative day. On postoperative day 4, however, he developed vasospasm and lost consciousness. The patient's wife is angry. She thinks that all the doctors lied about her husband's condition and that they continue to conceal the truth. She is convinced that her husband's deterioration is due to improper care. The nurse informs the physician of the wife's position, noting that the wife is threatening litigation. The physician and nurse then meet with Mr. F.'s wife.