

# The Organizational Context of Ethical Dilemmas: A Role-Playing Simulation for the Intensive Care Unit

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## ABSTRACT

The allocation of health care resources often requires decision makers to balance conflicting ethical principles. The resource-constrained intensive care unit (ICU) provides an ideal setting to study how decision makers go about their balancing act in a complex and dynamic environment. The author presents a role-playing simulation exercise which models ICU admission and discharge decision making. Designed for the class-room, the simulation engages a variety of ethical, managerial, and public policy issues including end-of-life decision making, triage, and rationing. The simulation is based on a sequence of scenarios or "decision rounds" delineating conditions in the ICU in terms of disposition of ICU patients, number of available ICU beds, prognoses of candidates for admission, and other physiological and organizational information. Students, playing the roles of attending physician, hospital administrator, nurse manager, triage officer, and ethics committee member, are challenged to reach consensus in the context of multiple power centers and conflicting goals. An organization theory perspective, incorporated into the simulation, provides insight on how decisions are actually made and stimulates discussion on how decision making might be improved.

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## INTRODUCTION

In *Principles of Biomedical Ethics*, Beauchamp and Childress define medical ethics as "the application of general ethical theories, principles, and rules to problems of therapeutic practice, health care delivery, and medical and biological research (Beauchamp and Childress 1979, vi-vii)." In the classroom, the usual way of teaching medical ethics is through the case method. Students are taught to analyze the facts and values of a case, apply various ethical principles, and make and justify a decision that resolves a particular problem they have defined. What is sometimes missing from the exercise is an appreciation of how facts and values are interpreted and applied in complex and dynamic organizational settings, in particular when decision makers are required to "balance" different ethical principles such as beneficence, nonmaleficence, autonomy, and justice (Beauchamp and Childress 1979). Decision makers face ethical dilemmas when these principles, which guide both clinicians and managers, are in conflict (Hiller 1984). Understandably, the thrust of medical ethics is normative, concentrating on how decisions should be made rather than how decisions are actually made (Zussman 1992). In health management education there is an opportunity to narrow this gap by introducing other perspectives and decision making models that explain how facts and values are interpreted and used. The resource-constrained intensive care unit (ICU) presents an ideal setting to study and model how decision makers go about their "balancing act."

Decision-making in the ICU frequently involves end-of-life decision making raising issues such as medical futility, patient autonomy, and advance directives, all standard topics in the field of biomedical ethics. If shortages of beds, staff, and money are added to the mix, issues such as quality of care, triage, rationing, comparative entitlement, and tragic choices come to the fore. Finally, add to this an organizational context where there are multiple decision makers who disagree on goals for ICU treatment and lack a clear understanding of the cause and effect relationships associated with the treatment, and you have a very rich opportunity for raising and addressing a whole host of managerial, public policy, and ethical issues.

While the case study method certainly fosters critical thinking through structural problem diagnosis and problem solving, a simulation exercise may provide students and practitioners a greater chance to experience the organizational dynamics inherently associated with ethical decision making. At the same time they are encouraged to become emotionally as well as cognitively active in that decision making (Calotte 1995).

In this paper we propose a role-playing simulation exercise to provide an understanding of: (1) ethical, managerial, legal, public policy, and medical

dimensions of ICU admissions and discharge; (2) the organizational roles played by various decision makers; and (3) the constraints faced by these decision makers. The simulation will provide the flexibility for incorporating perspective front ethics, organization theory, and public policy.

#### ICU GATEKEEPING: A CORNUCOPIA OF ETHICAL, MANAGERIAL, AND PUBLIC POLICY ISSUES

"Gatekeeping" is used to describe decision making relating to ICU admission and discharge. ICU gatekeepers - decision makers - decide who passes through the doors of the ICU and into a bed. The term is used differently than the usual notion of a managed care gatekeeper (e.g., a primary care physician who controls referrals to specialists).

Gatekeeping includes "non-triage mode" and "triage mode" decision making (Strosberg and Teres 1997). When ICU beds are readily available, gatekeepers often find it difficult to deny a patient access to an ICU, especially in health care systems not constrained by fixed budgets. In the non-triage mode it is frequently hard to see who would directly derive the benefit from the savings accrued by denying a patient access to an open ICU bed. However, various stakeholders (e.g., the hospital, managed care organization and its members, future ICU patients, taxpayers, investors) might benefit. Representatives of these aggregations should appreciate system-wide savings, but the incentives are not in place to encourage either the private attending physicians or their patients to accept the logic of a tradeoff. In contrast, Daniels (1986) compares hospital physicians in the British National Health Service. As employees of hospitals operating under fixed budgets, these physicians recognize that the savings that accrue from denying beneficial services to one patient could be directly applied to another patient who might derive more benefit.

When there is full occupancy or high census, an intermittent phenomenon, the only way to admit a patient is to discharge another patient. ICU staff use the term "triage" to connote the process of prioritizing access to beds during high census. Obviously, decisions to admit patients when there are readily available beds influences the likelihood of triage at a later point.

In the triage mode, ICU staff should respond to scarcity of beds by carefully reviewing each possible admission and accelerating discharge both of the patient who can be safely transferred to another unit or floor as well as the patient who has not responded to intensive therapy. In either of these two cases, the patients should be "triaged" out of the unit; no theoretical priority should be assumed for patients who are already in the unit. However, in many US hospitals, physicians or nurses performing triage often find it difficult to

discharge patients who have not responded to intensive therapy to make room for those who could benefit more. Frequently, there are no suitable beds on the regular floors or in an intermediate care unit, if one exists. Private attending physicians may object to discharging a patient to a floor that they deem unsafe because of a low nurse-to-patient ratio. Or families, refusing to give hope for the patient failing to respond to therapy, may resist the transfer of the hopelessly ill patient. It may take a long time to make a decision to limit care to these patients. In the meantime, other patients are waiting to come in (Strosberg and Teres 1997).

Frequently, physicians fail to reach consensus about the prognosis of ICU patients. In addition, physicians in the US cannot ignore the threat of legal challenge to premature discharge from the ICU. One triage decision maker sums up the conflict by describing his job as "getting a patient to a safe floor without endangering another patient's life waiting to come in. It's constantly a game of shuffle - save this end, don't harm that end." The risks to patients in the triage mode include: denying or delaying admission, diminishing the quality of care through premature ICU discharge, and/or diluting the quality of care to the remaining patients. In addition to quality and access, each gatekeeping decision, to some degree, also raises the issue of cost.

#### GAINING INSIGHT INTO GATEKEEPING THROUGH A ROLE-PLAYING SIMULATION EXERCISE

Our approach to understanding gatekeeping issues is through a role-playing simulation designed to model conditions at a specific hospital and its ICU. In a nutshell, admission and discharge decision making is simulated. Role-players consider requests to admit patients to an ICU on the basis of specific physiological and organizational information. Each admission request and subsequent decision is considered a "decision round." The sequence of decision rounds is constructed to illustrate key resource allocation issues as they unfold over time. Organizational constraints can be modified to examine how decisions might change under different conditions (e.g., different hospital policies, staffing levels, management responsibilities, reimbursement practices).

Role-players are given information on the number of staffed beds available, characteristics of patients in those beds, admission-discharge policies and other hospital and professional guidelines, and a description of the organizational characteristics of the hospital and ICU. Examples of role-players include; the attending physician, triage officer, nurse manager, hospital administrator, and ethics committee member. For each decision round, role-players, through discussion and negotiation, try to reach a

consensus and provide a rationale for their decision. According to the "game rules," if a consensus cannot be reached, the triage officer must make the decision.

After the role-players make their decision for the round, the simulation facilitator will reveal the "correct" decision, i.e., what had actually happened or what would have happened based on the particular dynamics of the hospital. The simulation facilitator will then give the rationale for the decision followed by a discussion of the important issues raised by the decision. With round one decided, the role-players will move on to round two and subsequent rounds. The role-players will have no knowledge of who will show up at the ICU gates in subsequent rounds.

#### CONSTRUCTING A ROLE-PLAYING SIMULATION EXERCISE: A CHECKLIST

Below are the requirements for conducting a successful gatekeeping simulation exercise. For a more detailed discussion of the gatekeeping simulation, see M.A. Strosberg and D. Teres, *Gatekeeping in the Intensive Care Unit* (Chicago: Health Administration Press, 1997).

1. **Simulation facilitator.** A "game-master" is needed to construct the scenarios for the decision-rounds, explain the ground rules, and then facilitate the exercise for the assembled group of "players." This person must creatively design the scenarios to surface troublesome issues in gatekeeping. If the participants are from a particular hospital, the scenarios can be based on actual cases. Scenarios that would be especially valuable are those that illustrate ethical dilemmas, inconsistencies between practice and policy, contradictions among policies, gaps in public policy, and legal uncertainty. The facilitator may also create a set of alternative "what-if" scenarios as an aid to discussion. For example, what if the unit had different policies, resource constraints, players, structure, etc.?

2. **Role-Players.** The suggested roles include: attending physician, triage officer, nurse manager, hospital administrator, and ethics committee member. ICU patients, typically lacking decision making capacity, are represented by the particular facts of the case. The facilitator will divide participants into groups of five and assign each member of the group a different role. Figure 1 shows the various perspectives and interests they represent. Although in reality the suggested role-players may not all be direct parties to a negotiation regarding a particular decision, they are stakeholders in the decision and therefore bring important operational, economic, ethical, or public policy interests to the table. Role-players should be encouraged to "play" their roles faithfully and negotiate from their role perspective. Distributing forms for "job

descriptions" and badges may help. To enhance the learning, participants should play roles different from their every-day institutional ones if they are from a hospital or ICU. Depending on the hospital characteristics (discussed below), the facilitator may wish to change the mix of role-players.

**Figure 1: Role-Players: Focus and Assumptions**

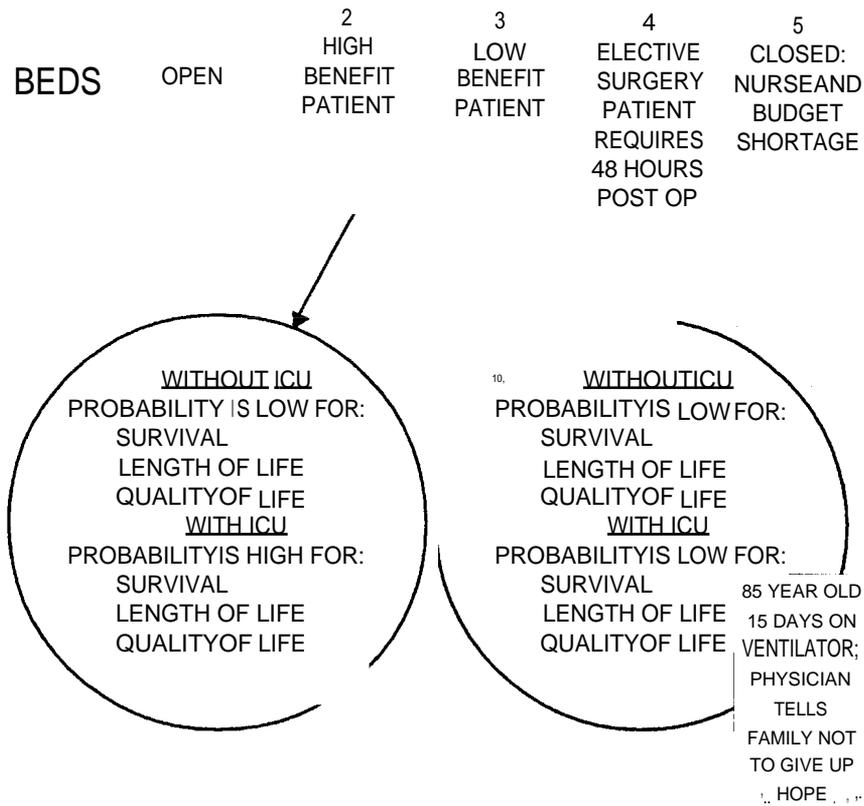
ROLE-PLAYERS: FOCUS AND ASSUMPTIONS

<u>Role-player</u>	<u>Focus/Assumptions</u>
1. Attending Physician	Individual patient/ Unlimited resources Maximize quality (Hippocratic Oath)
2. Nurse Manager	Patients in nursing unit/ Limited resources Maintain quality in unit (e.g., adequate nurse-to-patient ratio)
3. Hospital Administrator	Patients in hospital/ Limited hospital resources (budgets) Maintain viability & image of hospital
4. Triage Officer	Patients in hospital and ICU/ Intermittently scarce resources (beds) Choose among patients (comparative entitlement)
5. Ethics Committee Member	individual patient and family/ Advise on application of hospital policies and broader ethical principles

3 **Beds and Patients.** Figure 2 shows the disposition of beds in a hypothetical 5-bed ICU, discussed in greater detail in the next section. The bed disposition chart should be made into an overhead projection. Use an erasable marking pen to change the disposition of beds from round to round.

4 **Policies.** The role-players should be given a copy of the hospital's ICU admission and discharge policies and other appropriate guidelines, policies, and procedures (see Figure 3 for sample admission and discharge criteria). In order to stimulate discussion, it may be useful to distribute policies promulgated by various professional associations (see Appendix A for examples of such policies).

Figure 2: 5-Bed Medical-Surgical Intensive Care Unit



5. Cases for decision-rounds. Present cases that will spark debate on major issues facing the ICU, hospital, and society such as: justice and utility, medical futility, covert bed-side rationing, over-treatment and under-treatment, divided physician loyalties, and quality of care. If the cases are well chosen, there should be considerable discussion on how to improve gatekeeping at the institutional level and at the public policy level through legislative and judicial action. To this end, the decision rounds should be "rigged" to limit the options of the role-players and to force them to make the hard choices. For example, the simulation facilitator could "stipulate" that the ICU is in a prolonged period of high census. The facilitator can verbally present the facts of the decision round case or distribute a written version.

Figure 8: ICU Admissions & Discharge Criteria

#### ICU ADMISSION CRITERIA

1. Patients requiring mechanical ventilation for respiratory or ventilatory failure.
2. Patients requiring intravascular and/or invasive hemodynamic monitoring.
3. Patients with cardiogenic, septic, hypovolemic, or other types of shock.
4. Patients who have undergone successful cardiopulmonary resuscitation.
5. Patients who must receive intravenous vasoactive medications.
6. Patients requiring massive transfusions.
7. High-risk surgical patients who require pre-operative physiologic assessment and/or management.
8. Post-operative patients who require mechanical ventilation, hemodynamic monitoring, intensive nursing care or surgical monitoring.
9. Patients with impending respiratory/ventilatory failure who need intensive medical management to prevent intubation.
10. Patients with drug intoxications who either satisfy the above criteria or need intensive medical care for detoxification and/or treatment.
11. Patients undergoing diagnostic and therapeutic procedures that, for the individual patient, can logistically only be safely performed in the ICU. These include endoscopy, bronchoscopy, dialysis, continuous arteriovenous ultrafiltration, pacemaker insertion, thrombolytic therapy, etc.
12. Patients with metabolic, endocrine, or electrolyte abnormalities requiring close physician and nursing surveillance and care, such as diabetic ketoacidosis, hyperosmolar states, severe dehydration, hypothermia, hyperthermia, etc.

#### DISCHARGE CRITERIA

Patients will be discharged from the ICU when the criteria for admission are no longer present, i.e., the patient has improved, or the patient's condition has deteriorated to the extent that he/she has no medically reversible condition. In the latter event the patient *will* be transferred to an appropriate floor where comfort care will *be* continued.

#### AN ILLUSTRATION OF A SIMULATION EXERCISE INVOLVING TWO DECISION ROUNDS AT "COMMUNITY HOSPITAL"

To give readers a flavor of how a simulation might be designed and "played," we present the following illustration of one that has been constructed for "Community Hospital." In the interests of space, only two rounds *will be* presented. The final decision and rationale for each round are designed to be consistent with the organizational dynamics of the hospital.

#### THE ORGANIZATIONAL SETTING OF THE COMMUNITY HOSPITAL ICU

In order to force role-players to make hard choices, we have given Community Hospital a 5-bed adult medical-surgical ICU, an unrealistically small number of ICU beds for a 300-bed hospital. To increase difficulty, Community Hospital has no step-down or intermediate care units. Also, due to nursing requirements, patients receiving mechanical ventilation must be cared for in the ICU, not on the regular floors.

The medical-surgical ICU is jointly managed by medicine and nursing, and is overseen by a critical care committee composed of members from the departments of medicine and surgery. The unit has a part-time medical director who is an intensivist (a specialist in critical care medicine) and is part of a critical care medicine group that provides coverage of the unit on a consultative basis. All qualified attending physicians may admit and treat ICU patients, although the patients must meet admission and discharge criteria developed by the critical care committee and the medical director. The medical director serves as triage officer on a rotating basis along with members of the group and other Community attending physicians. It is the triage officer's responsibility to implement hospital triage policy and settle conflict over admission and discharge decisions.

#### BED DISPOSITION

The following bed disposition, portrayed in Figure 2, will be used in our simulation exercise:

Bed 1. Open for patient admission.

Bed 2. "High-benefit" patient with a good prognosis.

The NIH Consensus Development Conference Panel (1983) includes in this category:

*... the patient with acute reversible disease for whom the probability of survival without ICU intervention is low, but the survival probability with such interventions is high. Common clinical examples include those patients with acute reversible respiratory failure due to drug overdose, or with cardiac conduction disturbances resulting in cardiovascular collapse but amenable to pacemaker therapy. Because survival for many of these patients without such life-support interventions is uncommon, the observed high survival rates constitute unequivocal evidence of reduced mortality for this category of ICU patients. These patients clearly benefit from ICU care (p.2).*

How might these patients be characterized in terms of widely supported admission and discharge criteria? Start with the description "probability of survival without ICU intervention is low, but the survival probability with such interventions is high." This formulation can be symbolized as  $P(\text{Survival without ICU})$

ICU) is low,  $P(S \text{ with ICU})$  is high with  $P$  indicating probability and  $S$  indicating survival at least to hospital discharge (Mulley 1984). For these patients there is also a requirement for immediate action. Life is at stake here; death is imminent without ICU intervention. The criterion of interest is "urgency of need" (i.e., preventing death by treating urgent cases first). Others in less urgent condition can wait until another bed opens up (Kilner 1990).

The patients described above (e. g., a patient with acute reversible respiratory failure due to drug overdose), by virtue of ICU intervention, not only have a high probability or likelihood of survival, they have a high likelihood of benefiting in terms of increasing quality of life and length of life, two additional criteria.

The patient in Bed 2, in whom the potential to benefit is clearly recognized, can be contrasted the patient in Bed 3 where the potential to benefit is very limited.

Bed 3. Multi-organ failure patient with poor prognosis. This patient, because of the progressive deterioration of organ function, requires the life-sustaining interventions of the ICU. Without them the patient would die. On the other hand, there is a low possibility of leaving the hospital alive. Obviously, the prognosis in terms of improvement in quality of life or in the length of life is poor.

Bed 4. Elective surgery patient admitted for a 48-hour period of post-operative care and who has been in for 24 hours.

Bed 5. Closed bed. Although the licensed capacity of the ICU is 5 beds, an administrative decision has been made to staff only 4 of these beds because of budget cutbacks and difficulties in finding a sufficient number of qualified, full-time critical care nurses.

With the above preliminaries out of the way, we begin the simulation with Round One, based on a vignette prepared by Blendon et al. (1993) as part of a survey of physician practice in three different nations: the U.S., Canada, and Germany:

ROUND ONE: THE "SMOKER" SCENARIO:

The role-players consider:

*...an eighty-five-year-old male with a fifty-year history of cigarette smoking and chronic pulmonary disease who has a baseline dyspnea on climbing four or five stairs or on 100 yards of ambulation. Seven days ago he was admitted to the hospital with pneumococcal pneumonia. Since then, despite antibiotics, he has continued to worsen with a persistent cough and progressive hypercapnia. His doctors now believe that he will die without aggressive care*

*including intubation for a period of approximately three weeks. Even if this approach is attempted, his likelihood of survival is only 10 percent. (Mention et al. 1993, p. 200)*

The family and the patient desire aggressive treatment. One bed in the ICU is open. The question for the role-players is should the patient be admitted?

At this point, the role-players, in their groups, discuss the scenario and try to reach consensus. If they cannot, the groups triage officer must decide.

The facilitator should then ask each group for its decision and concomitant reasoning. If there is a lack of consensus, each of the role-players in the group should state his/her reasoning, presumably reflecting the imperatives of the role. Following this, the facilitator will then give the simulations decision, i.e., what actually happened or what would have happened given the dynamics of this particular hospital (see below).

Round One Decision: Admit the Smoker (with an erasable pen write "Smoker" in Bed 1 on the overhead projection).

Rationale: This patient clearly meets the official admission criteria (i.e., admit patients requiring mechanical ventilation for respiratory failure). With one bed open, the decision makers were operating in a non-triage mode.

Discussion Points (Examples):

**Medical futility.** The role-players might have considered medical futility as a potential basis for denying admission. Pertinent questions include: What is the definition of medical futility and how, is it related to hospital policies and professional guidelines? How low would a probability of survival and ensuing quality of life have to be to deny admission?

**Cost-effectiveness.** Closely connected to the above discussion is the question of whether it is ever appropriate to deny access to an ICU bed, not because treatment is medically futile, but because it is not worth the cost and that greater benefits could be derived if the funds were spent elsewhere.

**Social and economic context.** Although Blendon et al. (1993) find a high likelihood of the patient in the scenario being admitted to an American ICU, they find a much lower likelihood in Canada and Germany, raising broader social and economic questions. For example, do different societies hold different values with regard to the probability of survival, quality, and length of life? What is the importance of complying with patient and family wishes and respecting patient autonomy? In addition, what is the influence of supply factors? The US has more ICU beds per capita (Jacobs and Noseworthy 1990) and greater availability of demand-producing technologies such as open-heart surgery and cardiac catheterization units (Ruble 1994).

ROUNDTWO: "THE ASTHMA PATIENT" SCENARIO:

*The nurse manager receives a request from the ER for the admission of a 25-year-old asthmatic patient with acute respiratory failure. For this particular patient, the probability of survival without ICU is low and the probability of survival with ICU is high. There is a high degree of urgency. Because the ICU beds are filled, the nurse manager calls the triage officer.*

*The triage officer, not wanting to delay the admission of the asthmatic patient, considers transferring the elective surgery patient in bed 4 (who has been in the ICU for only 24 hours out of a 48 hour stay) to a regular floor. However the surgeon of this patient argues that discharge from the ICU would be premature and would place his patient at risk for complication.*

*Another choice he considers is discharging the multi-organ failure patient (an 85-year-old man who has been on the mechanical ventilator for 15 days) in bed 3 using the rationale of medical futility. It had been explained to the family of this patient that the chances of leaving the hospital alive are very slim, although the patient could hang on for several more days in the ICU with aggressive treatment. The family continues to demand aggressive care and is known to be litigious. The decision makers discuss the advisability of removing the patient from the ventilator against the wishes of the family or triaging the patient to the floor (where the staff are not equipped to take care of a ventilator patient and maintain aggressive care). The hospital attorney advises against this option. The triage officer, nurse manager, and administrator consider opening up bed 5, realizing that there might be an initial dilution of the quality of care to the other patients as existing nursing staff is stretched. A heated discussion takes place about this last option.*

Which bed should the Asthma Patient be admitted to? In this round, the person playing the role of private attending physician may choose to represent either the multi-organ failure patient or the elective surgery patient.

Round Two Decision: Admit the Asthmatic and Discharge the Elective Surgery Patient to the Surgical Floor.

The ICU staff convince the surgeon, the attending physician of the elective patient, to move the patient from the ICU to a closely-watched bed on the surgical floor fully recognizing that the patient has been put at higher risk for complication by being discharged 24 hours sooner than indicated. The multi-organ failure patient remains in the ICU with a very low probability of survival to hospital discharge.

Rationale: The 24-year-old asthmatic patient clearly meets the ICU admissions standards of Community Hospital. In effect, the choice was between the elective surgery patient and the multi-organ failure patient. In justification of their action of stretching intensive care for the prematurely discharged elective

surgery patient to the closely-watched bed on the surgical floor, decision makers can claim that they are sustaining the lives of both the elective surgery patient and the multi-organ failure patient, although the prospects for survival to hospital discharge of the multi-organ failure patient, not to mention the quality and length of life, are **minimal**. This claim reveals: (1) the rationale – maximize the total number of lives sustained; and (2) basis for prioritization – urgency of need or immediacy of death takes precedence over the risk to the elective surgery patient's quality and length of life. It should be pointed out that triage guidelines from the AMA and SCCM (Society of Critical Care Medicine) support the primacy of maximizing the **number of lives saved but not if those lives would be** of poor quality or short duration.

Discussion Points (Examples):

**Triage and disclosure.** In deciding to transfer the elective surgery patient instead of the multi-organ failure patient, do gatekeepers have an obligation to inform him of the reason for the transfer and of the potential risk involved? The Consensus Statement on Triage (SCCM 1994) states:

Triage policies should be disclosed in advance to the general public and, when feasible, to patients and surrogates on admission. Triage decisions may be made without patient or surrogate consent. Disclosure of triage decisions may help to facilitate communication, understanding, and cooperation among patients, surrogates, and physicians (p.1201).

The degree of compliance with the above disclosure policy is not known, but it is not likely to be high. Is the elective surgery patient's scare being covertly rationed if he is not informed about the reason for his transfer?

**Triage and comparative entitlement.** One vexing problem for physicians is how to **simultaneously serve as caregiver and rationer** of ICU, hospital, and societal resources. Given the Hippocratic tradition, an individual physician may find it difficult to accept the notion of comparative entitlement (e.g., Who among two or more patients is entitled to one bed?) when he/she believes that the quality of care for his/her patient is being compromised. Institutions also face contradictory expectations. For example, should patients already in the ICU take priority over those waiting to come in from other parts of the hospital or from outside the hospital? Many feel that there is a contract with patients already in the unit and to discharge them prematurely is tantamount to abandonment. Others argue that hospitals have the responsibility to allocate scarce beds according to the ability to benefit and an ICU patient should be discharged to make room for someone else who could derive greater benefit (Englehardt and Rie 1986). However, the law generally requires that the community standard of care be available to all patients regardless of the

economic hardships faced by the hospital. The quality of care cannot be diminished because of scarcity or Jack of beds.

**Triage as rationing.** Triage, to the extent that it diminishes potentially beneficial treatment, provides an excellent platform for discussing the concept of rationing a confusing and emotionally charged concept. It may be useful to compare and contrast ICU triage with the allocation of organs for transplantation. Organ allocation in the United States is an example of explicit rationing of an absolutely scarce "commodity" necessary for preserving life (Ubel and Goold 1998). See, for example, AMA, Council on Ethical and Judicial Affairs (1995), "Ethical Consideration in the Allocation of Organs and Other Scarce Medical Resources Among Patients." Over the past few decades, ethicists have been struggling with the task of balancing utility and justice in organ allocation (Veatch 2000).

**Medical futility.** The gatekeepers might have used medical futility as the rationale for withdrawing life support from the multi-organ failure patient. Most ethicists argue, however, that medical futility decisions should be made independently of resource availability considerations. Is that the case here?

Is the determination of medical futility solely a professional judgment? If so, the preferences of the patient or family would not be an important consideration. But given the movement toward the patient's right to autonomy and self-determination and away from medical paternalism, many physicians would be reluctant to make a unilateral judgment (see the 1997 SCCM Consensus Statement on Futile and Other Possibly Inadvisable Treatments). In extreme cases, some patients or their surrogates have claimed the right not only to accept or reject a proposed treatment but also to demand and receive any life-sustaining treatment. Many feel that the movement has gone too far and that physicians should not be obligated to give in to family demands for continued life-prolonging treatments which go beyond well-established medical criteria (Paris et al. 1993). However, in Round Two there is concern that the family will argue in court that withdrawal of the ventilator and subsequent death would be a diminishment of benefit, however marginal. From a practical point of view, the time it would take to "negotiate" a medical futility determination with the family would jeopardize the timely admission of the asthma patient.

**Public Policy.** Against a backdrop of patient autonomy, legal uncertainty, the unwillingness of most professional associations, hospitals, and governments to explicitly define benefit and utility thresholds, it is understandable why decision makers at the bedside find it difficult to triage a patient from the "too sick" side of the continuum. They must look either to change public policy at the legislative or judicial level, or to change legally acceptable

professional and community standards of *Gare* to resolve these difficulties. See AMA, Council on Ethical and Judicial Affairs (1997), "Medical Futility in End-of-Life Care." On the other hand, some are concerned that the financial incentives of managed care - placing physicians and hospitals at financial risk for their decisions - will make it "easier" to consider the option of providing less aggressive treatment.

Afterwards: The elective surgery patient deteriorates on the floor and "bounces back" to the ICU. Get ready for Round Three!

#### UNDERSTANDING THE ORGANIZATIONAL CONTEXT

With creatively constructed decision rounds, the role-players should experience the disorderly process of balancing the push and pull of interests. But the next step is to understand why the process is disorderly. Viewing gatekeeping through the lens of various decision making models may be helpful. Two decision making models, frequently positioned at opposite ends of a continuum, are the rational model and the political model.

In the rational model, goals are clear and agreed-upon and the alternatives for reaching those goals are well understood. Decisions are made in the name of maximizing some single value or set of values (Thompson 1967), and criteria exist for evaluating the correctness of a decision. Certainly, the rational model has great appeal as a framework for organizing the ICU admission and discharge decision making process. Embedded in the official policy statements guiding ICUs is the rhetoric of rationality, stressing effectiveness and appropriateness. On the other side of the continuum, the political model assumes that participants disagree about goals, have poor understanding of alternatives, and bring to the decision making separate interests and values. Information is often ambiguous and incomplete. Conflict and bargaining are normal and power and influence are needed to reach a decision (Pfeffer 1981).

How realistic is the rational model for the ICU? Using the characteristics of the models as benchmarks, it is instructive to analyze where ICU decision making falls on the continuum. One way to frame this analysis is to draw upon James D. Thompson's decision making paradigm, quite familiar in the organizational theory literature. Thompson, as shown in the Figure 4 below, dichotomizes two basic variables in the decision making process: preferences regarding possible outcomes and beliefs about cause/effect relations. The resulting cells are associated with four decision making strategies: computation, judgment, compromise, and inspiration.

Cause and effect relationships (treatment effectiveness) are expressed in terms of the probabilities of achieving certain outcomes, i.e., survival to hospital discharge, length of life, and quality of life. Obviously, it is difficult

Figure 4: *Décision Variables*

		<b>AGREEMENT ON GOALS</b>	
		<b>AGREE</b>	<b>DISAGREE</b>
<i>KNOWLEDGE ABOUT CAUSE/EFFECT RELATIONS (TREATMENT EFFECTIVENESS)</i>	<b>CERTAIN</b>	<b>COMPUTATION</b>	<b>COMPROMISE</b>
	<b>UNCERTAIN</b>	<b>JUDGEMENT</b>	<b>INSPIRATION</b>

\*Adopted from J.D. Thompson, *Organizations in Action*, New York: McGraw Hill, 1967, 134.

to predict how a particular patient will benefit from intensive care, especially prior to admission. Therefore, even assuming that various parties are in total agreement about preferences for these outcomes for a single patient, the decision will more likely rely more on judgment than computation. Now consider the likelihood that admission and discharge decision makers, facing more than one candidate, each represented by a physician advocate, will reach agreement on outcome preferences for the patient population. We can readily see how quickly the assumptions of the rational decision model (i.e., the computational quadrant) will fail to hold and the relative power of the actors will become a factor influencing the decision to admit or discharge.

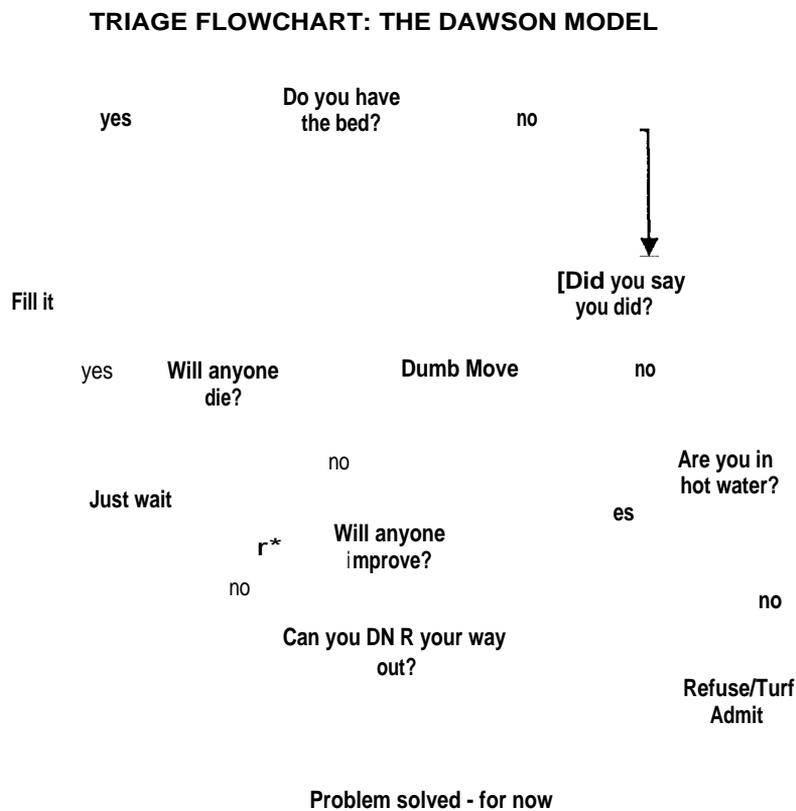
The "satisficing mode" is located on the continuum between the rational and political model (Simon 1964). Instead of trying to maximize any particular value or goal, decision makers try to meet the minimal expectations for a variety of stakeholders (e.g., attending physicians, patients and families, insurance companies, regulators, nursing staff). For example, we could imagine decision makers deciding in such a way so as to: (1) prevent physicians from becoming dissatisfied (e.g., admitting patients to competing hospitals); (2) prevent the nurses from quitting or burning out; (3) prevent legal, regulatory, or "public relations" difficulties for hospital and physicians; (4) prevent the quality assurance review process from being triggered; (5) meet the formal requirements of institutional policies.

In times of resource shortage (e.g., in a triage situation), decision makers search for that stakeholder, for whom a lower level of performance would be least objectionable, or for that stakeholder who has the least power to object.

The satisficing model is well expressed by the "Triage Flowchart" (Figure 5) created by John Dawson (1993), a physician who frequently functioned as a triage officer in a large, tertiary teaching hospital. In spite of the intended

humor, the chart does capture the flavor of the search process and the interconnections between non-triage and triage mode decision making. The chart shows how the harried triage officer, functioning in a dynamic environment, goes about "balancing" competing demands. This balancing act, as reflected in the decision step, "Can you DNR your way out?" is apparently not the careful and explicit process of balancing the ethical principles of Beauchamp and Childress.

Figure 5: Triage Flowchart: The Dawson Model



Source: J. Dawson. 1993. "Admission, Discharge, and Triage in Critical Care," *Critical Care Clinics: Critical Care Unit Management* 9(3):570.

#### CONCLUSIONS: FINAL STEPS

Armed with insights from the exercise, the participants should consider what steps would be necessary to move gatekeeping decision making into the rational (i.e., computational) decision making quadrant. The first task is to sort out which gatekeeping deficiencies might be addressed at the managerial level and which at the public policy level. For example, hospital management could restructure the organization of the ICU by centralizing admission, discharge, and treatment decision making into the hands of a group of intensivists dedicated to collectively managing the resources of the ICU. Centralization will serve to limit the influence of private attending physicians and increase the likelihood of reaching agreement on the goals for treatment. Also, the continual presence of intensivists, experts in critical care, should improve the quality and timeliness of information on patient prognosis (Society of Critical Care Medicine 1991).

On the public policy level, the discussion should focus on what steps would have to be taken in the judicial and legislative arenas, to address the multi-organ failure patient whose family and even physician want to continue aggressive treatment. The SCCM Consensus Statement on Futile and Other Possibly Inadvisable Treatments (1997) states, "In general it will not be possible for communities or institutions to set limits on treatments unless there is legal recognition that communities have a legitimate need to allocate resources. Thus, when communities develop such policies in consultation with interested parties, the standards established in these policies should be followed by the courts." In short, the legal ambiguities surrounding the limitation of resources must be resolved. And patients and surrogates, as well as physicians, must be assured a role in decision making.

What is the likelihood of restructuring the ICU and achieving a societal consensus on resource allocation? The participants may wish to assess the rate of progress and plan future action, clearly a topic for a course in health policy and politics. In the meantime, they will have gained a greater insight into the balancing act of the gatekeepers.

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## APPENDIX A

### EXAMPLES OF ADMISSION, DISCHARGE, AND TRIAGE POLICIES PROMULGATED BY PROFESSIONAL ASSOCIATIONS

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@article{Strosberg2001TheOC, title={The organizational context of ethical dilemmas: a role-playing simulation for the intensive care unit.}, author={Martin A. Strosberg}, journal={The Journal of health administration education}, year={2001}, volume={19 2}, pages={173-93 } }. Martin A. Strosberg. The allocation of health care resources often requires decision makers to balance conflicting ethical principles. The resource-constrained intensive care unit (ICU) provides an ideal setting to study how decision makers go about their balancing act in a complex and dynamic environment. The author pre The resource-constrained intensive care unit (ICU) provides an ideal setting to study how decision makers go about their balancing act in a complex and dynamic environment. The author presents a role-playing simulation exercise which models ICU admission and discharge decision making. Designed for the class-room, the simulation engages a variety of ethical, managerial, and public policy issues including end-of-life decision making, triage, and rationing.Â Please type a message to the paper's authors to explain your need for the paper. Paper: The organizational context of ethical dilemmas: a role-playing simulation for the intensive care unit. To: M A Strosberg. From (Name): E-mail: Only shared with authors of paper. Please enter a personalized message to the authors.