

MHPE 494
Medical Decision Making
July, 1999

Cases Involving End of Life Care

Advances in medical technology have made it possible to sustain the lives of people who would almost certainly have died prior to the development of these technologies. Consequently, questions are increasingly being asked about how to manage “end of life care” or the “care of the terminally ill”. Clinical ethicists approach these questions without explicitly using principles and methods of decision analysis, although these principles may be implicit in their analysis. As an attempt to explore both the potential and limitations of decision theory, we want you to apply the principles taught in this course to the following cases. Think about how to apply the principles we have been discussing this week to each case. You should begin by drawing a decision tree to represent the treatment alternatives and probable outcomes in the case. You should also try to identify principles that you believe are relevant to the cases that were not discussed in the course. Bring your lists of principles to the class for discussion.

Each student should read all of these cases and be prepared to discuss the issues involved. But you are responsible for preparing the decision tree for only one case.

Case 1.

Mr. GM, age 81, has Alzheimer’s disease and has lived in the same nursing home for the past 7 years. At this point, he can no longer talk or walk, is incontinent of urine, and requires round-the-clock nursing care. He has virtually stopped eating and has begun to lose a significant amount of weight. The staff at the nursing home have decided to feed him by inserting a thin nasogastric tube. Whenever this tube is inserted, Mr. M repeatedly and vigorously attempts to pull it out and he is usually successful. As a result, he is physically restrained and his hands are covered with mittens. He subsequently groans and struggles against the restraints. Finally, a gastrostomy tube is inserted in the hope that he would be more comfortable and not require any kind of restraint. Unfortunately, he also dislodges that tubing. He has no known family or friends.

1. Should this patient’s efforts to pull out the tubing be interpreted as a refusal of treatment? If so, is he mentally competent to refuse treatment? If not, who are the decision makers?
2. Should the health care team continue efforts to replace the tubing and keep this patient alive as long as possible? Or should they no longer attempt to replace the tubing and allow the patient to do? Are there other alternatives? Formulate answers to these questions before going on to Q3.
2. Draw a simple decision tree that represents this problem. Estimate the relevant probabilities and utilities. What is the worst possible outcome in this situation?

Case 2.

A 76-year-old woman with diabetes mellitus and high blood pressure was treated for breast cancer with a left radical mastectomy 14 years ago and a right mastectomy 2 years ago. She received radiotherapy after both operations.

A year ago, congestive heart failure developed for the first time and she was found to have severe mitral stenosis and aortic insufficiency. The patient underwent mitral valve replacement but had a stormy postoperative course including empyema, a chest tube placement, and later, sternal dehiscence. She was seen by several consultants, who disagreed about her clinical management. One suggested plastic surgical repair of the sternal wound, but another thought this would be futile, as the patient's wound healing ability seemed low.

The patient and her family decided to go home and think about it. The patient's condition deteriorated and during her first office visit two weeks later, she refused an operation or further hospital care. The patient's son and daughter in-law urged her to accept surgical therapy.

1. . If you were the attending physician in this case, what would you do? What principles guide your recommendation? Formulate your answer before going on to Q3.
2. Suppose the patient favored the recommendation of the first consultant and wanted the surgery while the family agreed with the second consultant that it was probably futile. Would you decide any differently?
3. Draw a simple decision tree that represents this problem. Estimate the relevant probabilities and utilities. What is the worst possible outcome in this situation?
4. How should we try to reconcile disagreements between an elderly patient and her children about potentially life-sustaining treatment? Do the principles discussed in this course help us to think about how to resolve disagreements among consultants? How?

Case 3.

In December 1989, Helga Wanglie, an 86-year-old woman, broke her hip at home. She was successfully treated for the fracture and discharged to a nursing home a few days later. In January 1990, she was readmitted to the hospital for respiratory failure and was placed on a respirator. Over the next 5 months, attempts to wean her from the respirator were unsuccessful. During this time, the patient was conscious, aware of her surroundings, could acknowledge pain, and recognized her family. In May, she was transferred to a facility specializing in the care of respiratory-dependent patients. During an attempt to wean her from the respirator there, she went into cardiopulmonary arrest. She was resuscitated and transferred to another acute care hospital, where she was diagnosed with extremely severe and irreversible brain damage.

At this point, physicians advised limiting any further life-sustaining treatment. But her family--husband, daughter and son--insisted that all form of treatment (continued respirator support, antibiotics for recurrent pneumonia, artificial feeding, and treatment for electrolyte and fluid imbalances) be continued, although they did reluctantly sign a DNR order. Despite the physicians' inability to offer anything but a poor prognosis, the family wished all other forms of treatment be continued indefinitely since they "hoped for the best."

1. In this circumstance, who is the decision maker? Who should determine what is in the patient's best interest, her family or the medical team? Should physicians seek legal intervention to have responsibility for this patient removed from the family and assigned to them?
2. Draw a decision tree with two arms (treat vigorously vs. minimal supportive therapy) and sketch in the relevant possible outcomes. In this case, the physicians are implicitly assigning some low utility to the patient's current state and a high probability to this state continuing. The family holds out for a low probability of a better outcome. Does a simple decision analysis give us more insight into the conflict? Would it be helpful in deciding what to do?
3. Should societal considerations enter at all into our thinking about cases like this? Specifically, since Medicare would pay for a great deal of the costs involved in the treatment the family wishes the patient to have, there is, or could be, a societal interest in avoiding expenditures for what physicians regard as futile treatment. How should we handle this issue?
4. In other cases, physicians have wished to treat a patient who (or whose family) wished treatment to be discontinued. How would you approach these conflicts? Do the principles and strategies discussed in this course come into play here? How?