# CLINICAL ETHICAL DECISION MAKING: THE FOUR TOPICS APPROACH

John H. Schumann, MD, and David Alfandre, MD, MSPH

onsider this patient scenario: An elderly man who has been on renal dialysis for many years is now unsure about wanting life-sustaining dialysis but continues treatment because he feels this is what his family wants. The patient is wheelchair bound, frail, and in pain. He has told his doctor he hopes to die in his sleep. What should the doctor do?

Clearly, we need more information. But, what facts of the case are important to know, and how should we weigh them so we feel confident in offering a recommendation that is ethically sound?

Clinical situations that raise ethical questions are a challenge to navigate. Often, there are multiple clinical facts to consider. In addition, patient values and preferences and the concerns and values of family must be taken into account. In some cases a decision is needed quickly. Ideally, when faced with these difficult clinical situations, we would use a systematic approach that ensures success in reaching an ethical decision or recommendation. Is there such an approach?

This is the second in a series of articles describing user-friendly frameworks for helping to make clinical decisions when ethical conflict is present. The first article compared *ethical* fact gathering and decision making to *medical* history taking and the skill of formulating differential diagnoses and an action plan [1]. In this article, we examine the "four topics" approach to clinical ethical case analysis described by Jonsen, Siegler, and Winslade [2]. This widely used method, also known as the "four quadrants" or "four boxes" approach, has been popularized through its use in the ethics fellowship training program at the University of Chicago's MacLean Center for Clinical Medical Ethics [3].

The four topics method was developed to provide clinicians with a framework for sorting through and focusing on specific aspects of clinical ethics cases and for connecting the circumstances of a case to their underlying ethical principles. Each topic—medical indi-

John H. Schumann, MD, MacLean Center for Clinical Medical Ethics, Section of General Internal Medicine, University of Chicago, Chicago, IL; and David Alfandre, MD, MSPH, VA National Center for Ethics in Health Care, New York, NY.

cations, patient preferences, quality of life, and contextual features—represents a set of specific questions to be considered in working through the case (**Figure 1**). In this article, we apply the four topics method to the analysis of a case that raises the question: should life-sustaining dialysis be withdrawn in this patient? The case is presented first, followed by an analysis of the facts of the case using the four topics method. In working through the case, we hope to illustrate the potential value of this approach to data gathering and decision making in ethically difficult situations.

## The Case

Mr. Tate is a retired teacher who lives with his wife of 60 years. At age 68, Mr. Tate initiated hemodialysis for end-stage renal disease (ESRD) resulting from longstanding hypertension and diabetes. At 74, he received a renal transplant, which remained viable for 6 years but ultimately was rejected. Because at age 80 he was no longer considered a candidate for transplantation, he resumed hemodialysis. Mr. Tate had a stroke just before his 81st birthday. Although he regained some ability to walk after the stroke, the left-sided weakness combined with severe peripheral arterial disease led to the use of a wheelchair outside the house. At that point, Mr. Tate's son, who lives nearby, began to transport him to and from dialysis.

After the stroke, Mr. Tate's family began to notice that he was not himself. He had always enjoyed lively conversations about current events and politics whenever the family gathered at his son's house. Since the stroke, however, he showed less interest in joining these discussions and often chose to watch TV rather than sit at the dining table with the family. For the first time, he also began to complain about hemodialysis, and his son occasionally had to practically force him to go. At a visit with his primary care physician, Mr. Tate said that he would "rather be dead than dependent on dialysis," which prompted his physician to recommend counseling and treatment for depression. Mr. Tate declined medication but agreed to a psychiatric assessment.

The psychiatrist found Mr. Tate's behavior appropriate and noted that he expressed guilt about

#### MEDICAL INDICATIONS PATIENT PREFERENCES Beneficence and Nonmaleficence **Respect for Patient Autonomy** • Is the patient mentally capable and legally competent? • What is the patient's medical problem? History? Diagnosis? Prognosis? Is there evidence of capacity? • Is the problem acute? Chronic? Critical? Emergent? • If competent, what is the patient stating about preferences Reversible? for treatment? What are the goals of treatment? · Has the patient been informed of benefits and risks, • What are the probabilities of success? understood this information, and given consent? • What are the plans in case of therapeutic failure? • If incapacitated, who is the appropriate surrogate? Is the • In sum, how can this patient be benefited by medical and surrogate using appropriate standards for decision making? nursing care, and how can harm be avoided? Has the patient expressed prior preferences (eg, advance directives)? Is the patient unwilling or unable to cooperate with medical treatment? If so, why? • In sum, is the patient's right to choose being respected to the extent possible in ethics and law? **QUALITY OF LIFE CONTEXTUAL FEATURES** Beneficence, Nonmaleficence, and Respect for Patient Lovalty and Fairness Autonomy Are there family issues that might influence treatment • What are the prospects, with or without treatment, for a decisions? return to normal life? Are there provider (physician, nurse) issues that might • What physical, mental, and social deficits is the patient influence treatment decisions? Are there financial and economic factors? likely to experience if treatment succeeds? • Are there biases that might prejudice the provider's evalu-• Are there religious or cultural factors? ation of the patient's quality of life? • Are there limits on confidentiality? • Is the patient's present or future condition such that his or Are there problems of allocation of resources? her continued life might be judged as undesirable? · How does the law affect treatment decisions? Is there any plan and rationale to forgo treatment? Is clinical research or teaching involved? • Is there any conflict of interest on the part of the providers • Are there plans for comfort and palliative care? or the institution?

**Figure 1.** The four topics approach to clinical ethics case analysis. Each topic represents a set of specific questions the physician should consider in working through the case. (Adapted with permission from Jonsen AR, Siegler M, Winslade WJ. Clinical ethics. 6th ed. New York: McGraw-Hill; 2006:11.)

wanting to stop dialysis, citing the turmoil and pain it would cause his family. "Every night I pray I'll die in my sleep," said Mr. Tate. "It would be a blessing to go peacefully without hurting the people I love." The psychiatrist judged that Mr. Tate was fully aware that he would die without dialysis and that, if he could do so without causing pain to his family, he would choose to stop treatment. She recommended to Mr. Tate's primary care physician that he meet with Mr. Tate and his family to try to draw these issues to the surface. Although the primary care physician agreed this was a good idea, Mr. Tate said he could not talk to his family about stopping dialysis because "they don't want me to give up."

At age 82, Mr. Tate was hospitalized acutely for ischemic rest pain. Angiography showed little distal runoff to the affected leg, and a vascular surgeon recommended below-the-knee amputation. In constant severe pain, Mr. Tate consented to the surgery. After a successful amputation, he was transferred to a nursing home for wound care, continued dialysis,

and physical therapy. One month postoperatively, he returned home. A physical therapist initially made home visits, but Mr. Tate refused physical therapy, saying "it hurt more than helped," and the therapist stopped coming.

It is now 8 months later and Mr. Tate is hospitalized for a third time as a result of missing outpatient hemodialysis sessions. He is frail and completely wheelchair bound at this point. The inpatient team feels that Mr. Tate's repeated hospitalizations are avoidable and potentially a latent expression of his preference to stop aggressive medical care, in which case a palliative care consultation would be recommended. The team suggests a family meeting to identify goals of care in an effort to optimize Mr. Tate's quality of life and mitigate his suffering. The team's assessment is that although mildly depressed, Mr. Tate is mentally competent to participate fully in this discussion.

Mr. Tate agrees to a family meeting, and his wife and son and one of his daughters attend. Mr. Tate's

wife and daughter feel adamantly that dialysis should continue, as their religious belief is that life is sacred. Mrs. Tate says this is what she thought her husband wanted as well. The advance directive Mr. Tate created before he underwent renal transplantation surgery states his preference to be kept on dialysis in the event of graft failure but to avoid other life-saving measures such as cardiopulmonary resuscitation or mechanical ventilation. When his son asks whether he has changed his mind about dialysis, Mr. Tate struggles to answer. "I don't know. I guess I felt different then. I felt better and had more to live for. I just don't know. It's so hard."

Given the conflict between Mr. Tate's prior stated wishes and his current apparent ambivalence toward hemodialysis, he and his family agree to resume hemodialysis and to defer further discussion of goals of care to the outpatient setting. Mr. Tate in particular expresses a desire to discuss these issues with his nephrologist and primary care physician.

At his next outpatient hemodialysis session, Mr. Tate asks his nephrologist what he can expect if he continues dialysis. The nephrologist tells Mr. Tate that she feels his prognosis is "fair" but depends on how regularly he attends dialysis. She admits that Mr. Tate's stroke and peripheral arterial disease place him at greater risk for a cardiovascular event, the most common cause of death in dialysis patients. However, she is reluctant to discuss stopping dialysis, as she senses the family conflict and wants to avoid getting mired in it. Mr. Tate then asks how quickly he would die if he stopped dialysis and how it would happen. The nephrologist tells him that would go into a uremic coma and die in his sleep in a matter of days to 2 weeks at most. As the discussion unfolds, Mr. Tate expresses a clear preference to be at home and at peace when he dies, not at a hospital.

The following week, Mr. Tate asks his son to take him to visit his primary care physician. During the visit, Mr. Tate's son stresses that it is becoming more difficult to rouse his father and transport him to dialysis, as his level of general pain has increased with almost any body positioning. He says his father often pleads with him to stay home, stating that the transport is too painful and the dialysis sessions make him too fatigued and nauseous. Interviewed alone, Mr. Tate states his inner conflict about continuing treatment and his hope to "pass peacefully in the night." He believes that the end of his life is near, and he can see a time when going to dialysis would be "unbearable." The primary care physician once again suggests a family meeting, and Mr. Tate

agrees. Prior to the meeting, the physician consults with the nephrologist and confirms the precedent and lawfulness of dialysis discontinuation.

At the family meeting, Mr. Tate expresses no clear preference regarding his further care, stating that he wants "what is best for the family." When questioned further, he says that he thinks his "time [of death] is near," but he does not want to upset his family by forgoing dialysis. Mr. Tate's wife and one of his daughters make clear their preference to continue dialysis to prolong life as long as possible. Mr. Tate's son and other daughter feel that their father's suffering is too great and believe that his true desire is to stop dialysis and pursue a plan for comfort care, even though he has difficulty verbalizing such a wish out of respect for his family.

# **Four Topics Analysis**

In this case, an elderly patient who once desired hemodialysis to sustain life has clinically deteriorated to the point that the treatment is prolonging his suffering and diminishing his chance of a "good death." The patient is ambivalent about continuing dialysis but clear about wanting to die peacefully at home. How can a reasonable clinical and ethical plan of action be reached in the absence of an explicit decision from the patient and a lack of consensus among the family? To help work through this challenging question, we start by filling case information into the respective quadrants of the four topics model.

## **Medical Indications**

Clinical ethics case analysis using the four topics method begins with an articulation of the medical facts of the case, including the diagnosis, prognosis, treatment options, and how the patient can benefit if at all-from treatment. These details are most conveniently thought of as the clinical information that might be presented at a case conference such as morning report. When compiling the medical indications of a case, one should include pertinent aspects of the diagnosis (eg, acute or chronic?), goals of the proposed treatment and likelihood of success, and contingency plans in the event the treatment is not successful. Although conceptually presented as a series of facts about the patient and the medical condition, it is important to keep in mind that reasonable clinicians routinely disagree about diagnoses and are even less certain about predicting prognoses.

The topic of medical indications is crucial for helping frame the treatment options available to the physician or clinical team and, in turn, the patient and family

in a given case. Underlying this topic are the ethical principles of beneficence and nonmaleficence. Beneficence is what physicians aspire to do—to help patients by using their accumulated skills and knowledge in the promotion of healing, curing, and preventing risk. Nonmaleficence can be simply defined as "do no harm." All decisions regarding medical therapy involve a calculation regarding the potential benefits and risks of the proposed intervention(s). Ideally, physicians seek to maximize benefit and mitigate harm. When the risk/benefit calculation is close to equivocal, physicians, patients, and their families struggle with how to proceed. This struggle is evident in the case of Mr. Tate, which has raised the question: at what point does the burden of dialysis outweigh the benefit for him?

Applying the four topics approach, we begin with the stark medical facts of the case. Mr. Tate has several chronic medical conditions that have reached a severe state. With ESRD, the prognosis is clear: renal replacement therapy must continue or he will die. In addition, Mr. Tate has severe peripheral arterial disease that has already led to an amputation. He suffers from chronic pain and inability to ambulate. However, even with multiple chronic conditions, Mr. Tate's remaining life expectancy is difficult to predict in the absence of an acute complication or cardiovascular event [4].

In the United States, the "indicated" therapy for ESRD is renal replacement therapy via renal transplantation or dialysis. Because Mr. Tate is no longer a candidate for a renal transplant, dialysis was the recommended life-sustaining therapy. The alternative to dialysis would be to forgo renal replacement therapy and pursue a goal of comfort and symptom palliation. If Mr. Tate chose not to continue dialysis, his disease would end his life in a matter of days to weeks [5]. Determining a patient's clear preference when opting to forgo an indicated treatment becomes an ethical imperative, given that such a choice is frequently a choice that will hasten death [6]. The family meeting called by Mr. Tate's primary care physician is a crucial step toward determining what the patient truly wants and, thus, finding an ethical resolution to the case.

#### **Patient Preferences**

This topic focuses on the expressed or presumed wishes and values of the patient. Has the patient indicated his or her preferences, or has there been a prior stated wish regarding specific medical interventions or an advance directive that can help guide the physician or care team? Is it clear what the patient wants?

Articulating patient preferences is more than simply listing what the patient identifies as his or her

wishes. It is also important to assess the patient's understanding of the medical indications pertinent to the case. Has the patient been provided with sufficient information, and is he or she able to assimilate and use this information to formulate a statement of preferences? Equally important is to be sure that when a patient consents to a medical treatment, the decision is made in a truly voluntary manner and not coerced. Finally, how are patient preferences determined when the patient is unable to communicate or incompetent to make decisions? Who becomes the appropriate surrogate decision maker, and what happens when there is no identifiable surrogate?

The topic of patient preferences is derived directly from the ethical concept of respect for patient autonomy. In respecting autonomy, physicians should strive not only to understand a patient's wishes, but to probe further and explore the patient's deeply held beliefs. Ethics consults are most frequently requested when there is conflict between a patient's preferences and that which the care team has decided is "medically indicated." When such a conflict occurs, which ethical principle takes precedence? Does autonomy trump beneficence and nonmaleficence?

Returning once again to our case, what are Mr. Tate's preferences? His previous advance directive indicated a choice for dialysis in the event his transplanted kidney failed. More recently, he has verbally stated that he wants "what's best for the family," without being more specific. He has told his son, his most involved caregiver, that he no longer wants to continue being transported to and from dialysis because transportation and movement are too painful and the dialysis sessions themselves are too debilitating causing fatigue and nausea. Mr. Tate's family members are divided, half thinking that dialysis should continue, the other half thinking that Mr. Tate is ready to die and that he wants to do so with dignity at home, under proper palliative care and minimization of medical intervention. With such ambiguity, further discussion between Mr. Tate, his family, and his primary care physician becomes paramount to increase clarity.

# Quality of Life

A major goal of medical treatment is to restore, maintain, or improve quality of life. In clinical ethics case analysis, it is important to consider what effect the indicated treatment will have on the patient's quality of life. However, how does one define quality of life?

When applying the four topics approach, quality of life is the topic most likely to be subject to preconceived biases [2]. Clearly, quality of life is defined by

one's perspective, and perceptions of "quality" may vary significantly from one person to the next. It is particularly important for physicians to remember that their assumptions about a patient's quality of life may differ vastly from the patient's own ideas and from the ideas of the patient's family. In this regard, physicians should use the patient's expressed wishes, values, and preferences as a guide to what best defines quality of life for that patient.

All 3 aforementioned ethical principles underlie the topic of quality of life. Respect for patient autonomy implies that the patient is best positioned to judge his or her own quality of life. The principles of beneficence and nonmaleficence help to determine the appropriateness of accepting or rejecting the potential therapeutic options. Do these principles shed light on the treatment options such that we can see them as potentially more harmful than beneficial?

How do Mr. Tate's prior statements and actions help us judge his perception of quality of life? He has stated that he would "rather be dead than dependent on dialysis." Further, he has told his primary care physician that he felt he was nearing the end of life and that he hoped to die peacefully in his sleep. We can guess at Mr. Tate's own assessment of his quality of life from his statements, but he has not articulated a vision of how he wants to spend his remaining days. Emotional statements about end of life are difficult for many patients to express yet provide crucial information to physicians and families that can help create consensus around the next medical decisions and course of action. In this case, it would be appropriate to also consider Mr. Tate's comorbidities (peripheral vascular disease with associated chronic pain, stroke sequelae) and their impact on his quality of life. Although these entities have been considered in passing by the different physicians caring for Mr. Tate, they have not been addressed head-on.

## **Contextual Features**

The final step in the four topics method is to consider the larger context in which the case is occurring and to determine whether any contextual features are relevant to the case and its ethical analysis. The context of a case is determined by multiple social factors, including (among others) the dynamics of the family, the living situation of the patient, and cultural and religious beliefs of the patient and the family. In addition, it is important to be aware of who the major caregivers are for the patient and how the various medical choices will affect the caregivers' ability to provide care.

Contextual features also embody the ethical prin-

ciples of justice and fairness, including potential financial implications and legal ramifications of the case. Although these external factors can help to frame the medical decisions at hand, it must be remembered that—in the United States, at least—medical decision making typically progresses between doctors, patients, and families, and that any reference to accruing costs or societal constraints mentioned to patients or families can be seen as uncaring, bureaucratic, and callous.

Finally, a bit of physician self-reflection is key when addressing the context of a case. For example, are there provider issues that might influence treatment decisions or conflicts of interest on the part of the physicians or the hospital? Hospitals are motivated by "throughput," the idea that patients enter and depart as quickly as possible given that insurers such as Medicare pay a flat fee based on the diagnosis, not by the accrual of charges (fee for service). Similarly, under managed care arrangements, some physicians are incentivized to minimize service provision; limiting hospital admission or costly chronic procedures such as dialysis can improve the "performance" of the physician [7]. In strictly economic terms, a decision to pursue hospice care would be seen as cost saving.

When considering contextual features in the case of Mr. Tate, we know that at least some of his family members evoke their religious view of the sacredness of life to try to convince him to fight on. His son, the major caregiver, senses that he is ready for death and no longer wants him to continue attending dialysis. Based on precedent [6], we know that it is legally permissible to discontinue dialysis, so there should not be fear of legal ramifications.

### What Is Our Recommendation?

**Figure 2** shows how we might summarize the four topics analysis of the case of Mr. Tate. Having filled in the quadrants with details of the case, we can now use the four topics method to help resolve the case. We achieve this by tying the items in the grid to their underlying ethical principles and weighing the relative contribution of each to the ethical dilemma. If possible, boiling the ethical dilemma down to one or two key questions helps use the collected information to define a pathway for achieving resolution.

Mr. Tate is an elderly dialysis patient who seems to be emotionally preparing for death but who is unable to clearly express a preference for ending dialysis to his family or his doctors. The medical indications in the case revolve around his ESRD and the need for renal replacement therapy. ESRD is unusual in that if a patient is able to avoid complications and is willing

#### MEDICAL INDICATIONS PATIENT PREFERENCES • Medical problems: ESRD (chronic and irreversible), other • An advance directive (created at time of renal transplantamajor progressive diseases (peripheral arterial disease, diation) states patient's desire to continue dialysis betes, hypertension) After transplant rejection, resumption of dialysis, and • Prognosis: fair to poor, given irreversible nature of ESRD; stroke, patient begins to express (to son and primary care at best, if patient remains stable and avoids complications, physician) a desire to stop dialysis; misses dialysis sessions, can be called "fair," without definition of remaining life resulting in hospitalizations • Patient is passive at family meeting (wants "what is best expectancy • Goal of treatment: life extension (continued dialysis) verfor the family") but tells nephrologist and primary care sus "good death" (dialysis withdrawal and comfort care) physician he wants to die peacefully at home • Patient appears mentally competent and understands the implications of stopping dialysis; he feels his death is near **QUALITY OF LIFE CONTEXTUAL FEATURES** • Patient has severe, irreversible illness and a fair/poor prog-· Patient's family members have differing opinions regarding continuing versus withdrawing dialysis; some cite reli-· Patient has limited mobility from an amputation and stroke gious reasons for sustaining life Primary care physician obtains medicolegal opinion about • Patient has high level of general pain • Patient lives with wife and has significant support from the precedent and lawfulness of dialysis discontinuation son; other children are nearby and involved Relative costs of palliative care/hospice (low) versus continued aggressive treatment with or without frequent hospitalizations (high)

Figure 2. Applying the four topics approach to the case of Mr. Tate.

to continue therapy, the disease itself does not truly progress, and the patient is kept in a medical "holding pattern." Mr. Tate's other conditions, including peripheral arterial disease, pain, and likely depression, undoubtedly have contributed to his belief that his quality of life is worsening and that he does not want to continue to live his life in such a fashion. The contextual features in this case center around the family and their dynamics, with some claims about the patient made on the basis of religious views. Mr. Tate and his family members, except for his son and one daughter, were all unable to speak directly to the issues, instead couching their real opinions in euphemistic language of "what's best for the family" or what their religion dictates.

In applying the four topics method, we have identified *the* critical question in the case of Mr. Tate: what does the patient want? Although we still do not have a resolution of the case, the analysis has brought to the surface the crucial need to clarify Mr. Tate's preference, given the ethical implications of forgoing dialysis. Herein lies a good example of the value of a trusted primary care physician. By knowing the patient over a long period of time, Mr. Tate's primary physician is better positioned to open a dialogue with the patient and his family and to use his knowledge of the patient's previously expressed preferences as well as more recent statements suggesting that some of those views have changed. The goal of the family

meeting is to present options to the family, using the data from the four topics to help frame the options in a way that consensus can be reached. One key educational piece to impart to the family is the ethical equivalence between discontinuing dialysis and withholding it in the first place [8]. To many, the former feels egregious compared to the latter, but many commentators in the medical ethics literature have upheld this paradigm.

# Strengths and Weaknesses of the Four Topics Method

The four topics method is one of many approaches to clinical ethical decision making. The method's strengths lie in its simplicity. Each box represents one or more of the underlying core ethical principles of medicine, which helps link the (abstract) principles to the specific (concrete) details of any case. The approach allows us to organize our thoughts with respect to the different aspects of a clinical case and to have a starting point to discuss conflicted areas (or even straightforward care plans) with patients and their families.

When using the four topics method, separating case details into their respective boxes helps tie the underlying ethical principles to the facts of the case. Any of the points or questions in any of the topical boxes can be a starting point for further exploring the values of the patient and the family in a discussion to try to

reach a place of consensus in making a medically and ethically sound decision. Mark Siegler, MD, recommends that one helpful way of ranking the information gathered in the case analysis is to think of the upper boxes as being separated from the lower boxes by a theoretical double line, to indicate that quality of life and contextual features have less overall weight in the calculus of medical decision making than do the medical indications of the case and the patient's preferences (personal communication, July 2008).

The relative weaknesses of the four topics approach are akin to its strengths. The straightforward listing of the topics tends to lead to oversimplification of the ethical points of a case. In addition, it is often challenging to operationalize the four topics into a cogent approach to clinical ethical decision making. Once the points and questions are arranged into their respective topics, it may be difficult to know where to begin to move forward in the decision-making process. Often, the best starting point is to identify one to three options that can be presented to the patient/surrogate to prompt a discussion of the preferences of the patient and the patient's family.

#### Conclusion

In summary, the four topics approach helps to highlight areas of controversy and to clarify the principles underlying the circumstances of a clinical ethics case, which in turn helps guide discussion among care team members, patients, and families toward achieving a resolution that respects the patient's values and preferences. Arranging case information using the four topics model is useful not only for ethically challenging cases but for any clinical encounter. The contents of the boxes can be used to enhance conversations about values that patients and their families hold dear and thus can help achieve sound medical and ethical clinical decisions. Clinical ethical decision making always is challenging, but it can be overwhelming for clinical trainees. Our goal in developing this series of articles is to present user-friendly methods of working through ethically challenging cases. We hope that readers will be able to use the case descriptions and methodologies presented in the series to further their own education, comfort, and skills in the realm of clinical ethical decision making.

Corresponding Author: John Schumann, MD, 5841 S. Maryland Ave, MC 3051, Chicago, IL 60637 (email: schumann@uchicago.edu).

NOTE: The views of the author, David Alfandre, that are expressed in this article are those of the author alone and do not necessarily reflect the position or policy of the Department of Veterans Affairs (VA), the VA National Center for Ethics in Health Care, or the United States government. The majority of the author's contribution to this article was written while Dr. Alfandre was affiliated with the Mount Sinai School of Medicine, Department of Medicine.

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