

A QUESTION OF ETHICS

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A man without ethics is a wild beast loosed upon this world.

– Manly P. Hall

CASE 1.

Mrs. Vinh, a 76 year-old Thai woman with active hepatitis B, was admitted to the hospital for shortness of breath and increasing abdominal girth. A computed tomography (CT) scan of the chest and abdomen that was done a month before her admission demonstrated findings typical of hepatic cirrhosis, with splenomegaly and esophageal varices. In addition, there was a vascular focal hepatic mass 5 cm in diameter, with portal and hepatic vein occlusion. This mass extended up the inferior vena cava into the right atrium. The patient spoke no English; her son did all of the translation, because no hospital interpreter was available. On several occasions the house staff believed that the son was not relaying all of the information to his mother about the procedures and her condition. The patient's family expressed the wish that every possible treatment option be explored, so the patient was referred to an oncologist. The oncologist indicated that chemotherapy was a possible treatment option, but he was unwilling to treat the patient without a pathological diagnosis. The radiology department was consulted to perform percutaneous liver biopsy. The radiologist questioned the wisdom of the procedure, indicating that the risks to the patient were great and the procedure was unwarranted, given the terminal outcome of the illness. (Based on a case study reported in the Canadian Association of Radiologists Journal.¹)

CASE 2.

Mr. Smith, a 73 year-old male, in good overall health is recovering from recent knee replacement surgery. Due to his 50-year history of cigarette smoking Mr. Smith was sent to the CT department for a routine study of the

chest. After the injection of the contrast medium, the patient experienced acute respiratory distress. The radiologist was summoned. The technologist pointed out the do not resuscitate (DNR) order in the patient's chart and questioned its relevancy in this situation.

These scenarios are typical in the daily practice of radiology. In each instance, the next step involves an ethical decision. For example, in Case 1, should the family's wishes be overruled based on medical futility and the risks associated with treatment? In Case 2, should the DNR orders be overridden because this situation may not be the type of event the DNR order was intended for?

As our scientific knowledge and technologic capabilities continue to advance, radiology becomes ever more complex. Many current issues in medical ethics are the product of advances in scientific knowledge and biomedical technology. These advances have presented humanity not only with great progress in diagnosis, treatment, and prevention of disease, but also with new questions and uncertainties about the basic nature of life and death. Nevertheless, medicine, even at its most technical and scientific, involves encounter between human beings in which difficult decisions cannot be avoided. Doing nothing or delaying action are also choices, but these measures may have momentous consequences. Ethical dilemmas arise because sound reasons for conflicting courses of action exist. Common sense, clinical experience, being a good person, and having good intentions are no guarantees that health professionals will know how to respond appropriately to such dilemmas. Ethical quandaries often elicit powerful emotional responses. In fact, strong emotions are often a clue to the presence of an unresolved ethical issue. However, emotional responses are not a satisfactory way of resolving such dilemmas.

In this article we look first at the theoretical aspects of ethical decision making. What exactly is clinical ethics? How can ethics be distinguished from morality? How do clinical ethics differ from law? Discussing questions such as these will provide a foundation for developing an algorithm that can be applied to the ethical dilemmas inherent in patient care. Once this groundwork has been laid, we will examine two of the hundreds of ethical issues facing modern medicine in more detail. These issues are medical futility and advanced directives.

INTRODUCTION

"The ideals which have always shone before me and filled me with the joy of living are goodness, beauty, and truth. To make a goal of comfort or happiness has never appealed to me; a system of ethics built on this basis would be sufficient only for a herd of cattle."

– Albert Einstein

The word “ethics” arose from the Greek word “ethika,” meaning character or custom. Ethics refers to principles or standards of human conduct. Ethics is often used interchangeably with the word morals (derived from the Latin “mores,” meaning custom). As a branch of philosophy, ethics is considered a normative science, because it is concerned with the norms of human conduct. As a normative science, ethics is distinguished from the formal sciences, such as mathematics and logic, and the empirical sciences, such as chemistry and physics. However, because ethics involves the study of social behavior, it somewhat overlaps with the empirical social sciences, such as psychology and sociology.

Philosophers have long understood that ethics is entirely dependent on social setting, with each culture developing an ethic of its own. Philosophers have attempted to classify good conduct in one of two main ways. First, the conduct is inherently good; that is, it is desirable in itself and not merely as a means to an end. Or alternatively, the conduct is good because it conforms to a particular moral standard.

Depending on the social setting, a particular ethic will rely on one of three types of authority: the will of a deity, the pattern of nature, or the rule of reason. When the will of a deity is the authority, obedience to the divine commandment in scriptural texts is the accepted standard of conduct. If the pattern of human nature is the authority, conformity to the qualities attributed to human nature is the standard. When reason rules, behavior is expected to result from rational thought.

Medical (or clinical) ethics is the study and application of moral values, rights, and duties in the fields of medical treatment and research. Decisions involving ethical issues are made every day in diverse situations, such as the relationship between patient and physician, the treatment of human and animal subjects in biomedical experimentation, the allocation of scarce medical resources, and the complex questions that surround the beginning and end of human life.

The roots of medical ethics can be traced as far back as ancient Greece, but the field became increasingly prominent in the late 20th century as people struggled with the many complex issues raised by new technologies. As ethical issues have become more complex, clinical ethics has grown into a separate profession and field

of study. Professional clinical ethicists bring expertise from fields such as philosophy, social sciences, medicine, research science, law, and theology. Like most other specialties, the field of clinical ethics uses vocabulary that may be unfamiliar to those persons outside the discipline. Throughout this article, words that may be unfamiliar are in bold text and defined in the glossary that appears at the end of the article.

FUNDAMENTALS OF CLINICAL ETHICS

The basis of clinical ethics in Western civilization is a complex blend of the three authorities previously mentioned: God, nature, and reason. When faced with a difficult decision, healthcare professionals, like all people, rely on many sources for guidance. Many of these sources can be categorized as moral cornerstones, such as parental and family values, cultural traditions, and religious beliefs. These same influences often instill virtues, such as altruism, compassion, and truthfulness. An individual’s value system is molded by such sources that guide decisions on what they feel are the right course of action. However, although personal moral values certainly play a role in clinical ethics, there are several reasons why they cannot be the only factors in resolving clinical dilemmas.

First, there must be some consensus regarding the plan to resolve an ethical dilemma. Other healthcare providers, patients, and family members may have different religious or cultural backgrounds that form the backdrop for an individual’s decisions. From that perspective, positions held by a physician or hospital may be contested at a fundamental level. For example, a patient’s decision to continue medical treatment in the face of overwhelming odds may be seen as one of spiritual faith. Conversely, those healthcare providers or family members that disagree with such a decision may be viewed by the patient as lacking spiritual faith.

Second, personal values may not be sufficient to resolve the dilemmas. A person’s past experience may not be enough preparation for the complexities and uniqueness of issues that arise in a clinical setting. However, the moral values and upbringing that guide a physician or technologist’s personal life usually do not address professional roles. In addition, a medical professional may have conflicting values in a particular situation. For example, a physician may wish to alleviate the suffering of a dying patient and yet respect the sacredness of life.

Third, the obligations of healthcare providers often diverge from those obligations inherent in being a good citizen and a good person. Technologists, physicians, and nurses have many special responsibilities, such as to not cause harm or provide medically futile treatment to a patient (e.g., Case 1) or to accurately interpret the wishes of the patient (e.g., Case 2).

DISTINGUISHING MORAL AND ETHICAL

Although the terms “moral” and “ethical” are often used interchangeably to refer to standards of right and wrong behavior, making subtle distinctions between the words can be beneficial. Moral choices are based on values or beliefs that cannot be proved but are simply accepted as such.³ Moral authority relies more heavily on God or nature and is often learned in childhood and accepted without deliberation. Although such fundamental moral beliefs are part of a person’s character and usually provide an adequate guide for the majority of life’s decisions, they may be insufficient as a sole source of guidance in many clinical situations.

In contrast to moral choices, ethics decisions endeavor to be less emotional and more rational.³ Ethical deliberations require that explicit arguments are given to justify a particular action. Although the will of God or nature often play a role in ethics, in the clinical realm authority is drawn more heavily on the rules of reason. Ethical analysis focuses on the reasons why an action is considered right or wrong. It requires that positions and beliefs be justified by rational arguments.

THE RELATIONSHIP BETWEEN ETHICS AND LAW

The law is also an important source of guidance for the conduct of healthcare professionals. In many cases, the law reflects what a society has determined to be ethical behavior. Rulings by courts are accompanied by a written analysis of the pertinent issues involved in the decision. These analyses are designed to help the public understand the reasons for a court’s decision, thereby making it easier to apply the ruling to a variety of individual situations. Hence, there is no doubt that understanding what the law says regarding issues in clinical ethics is valuable to anyone working in a clinical setting. However, in many cases the law alone cannot provide definitive answers to ethical dilemmas.

Ethical values and legal principles are typically closely related, but ethical obligations usually exceed legal duties.⁴ The law, particularly the criminal law, sets the limit on what is considered the minimally acceptable standard. That is, laws spell out what acts are so wrong that the healthcare provider will be held legally liable. On the other hand, the realm of ethics focuses on the right or best decision in a situation. For example, from a legal perspective a technologist who is asked to perform a radiologic examination on a 12 year-old child is only required to obtain consent from the parent or guardian. However, professional ethics requires the technologist to explain the examination to the child in a way that is developmentally appropriate and through this process obtain the child’s cooperation.

The fact that a nurse charged with allegedly illegal conduct has been acquitted in a civil or criminal proceeding does not necessarily mean that the nurse acted

ethically. Ethical standards require healthcare providers to act with compassion and integrity. It is impossible for the law to enforce such standards.

Another reason that the law cannot be the only source of guidance is that many clinical situations arise that have no clear legal precedence. This is true regarding the issue of disclosing genetic information to relatives when the patient objects to such disclosure.³

Finally, sometimes the law and ethics are at odds. For example, abortion is legal in the United States, yet many individuals have ethical concerns about this practice.

PROFESSIONAL OATHS AND CODES

Radiologic technologists and sonographers can also seek guidance from the professional codes of ethics developed by the American Society of Radiologic Technologists and the Society of Diagnostic Medical Sonographers. (Boxes 1 and 2). However, although these codes provide valuable support, they have shortcomings in their application to specific scenarios. Because they articulate a position without giving a detailed analysis of the issues, it can be difficult to ascertain appropriate conduct in complex cases with conflicting ethical issues.

TRADITIONAL ETHICAL THEORIES

Throughout its development, medical ethics has drawn on philosophical concepts from three main camps: deontology, consequentialism, and virtue ethics.⁵ Deontology is a duty-based branch of ethical teaching. Within this framework, the individual must fulfill obligations without regard to personal desires. To apply this theory, deontologists explain that a person’s obligations/actions are guided by adherence to clear principles, such as respect for free will. For example, an informed, competent patient may refuse a potentially life-saving medical intervention. In contemporary bioethics, the idea of autonomy has traditionally been of central importance.

Another group of medical ethicists support a principle known as consequentialism (or utilitarianism). This theory holds that actions should be judged primarily by their results [consequences]. Actions or policies that achieve good results—particularly the greatest good for the greatest number of people—are judged to be best.

The third philosophical principle that has been central to medical ethics is virtue ethics (or virtue theory). This theory is based on the belief that those who are taught to be good will do what is right. Virtue ethicists claim that most other philosophies go wrong in seeking rules to govern particular actions. Instead, virtue theory reasons that particular actions are so variable that they require a good deal of judgment, not inflexible rules. Thus, the virtue ethicist asks what kind of character traits we should develop in order to become the kind of persons who will judge well in these variable situations. This line of thought is usually attributed to Aristotle and

Thomas Aquinas, but has many contemporary proponents as well.

Deontology, consequentialism, and virtue theory are often viewed as too general or too abstract to apply to the complex ethical issues in medicine. Hence, medical ethicists have tried to establish specific ethical frameworks and procedures. Two better-known systems are the Four Principles Approach and casuistry.

The Four Principles Approach is also referred to as principlism. In this system, decisions are made by weighing the importance of four separate elements:

- * Respecting each person's autonomy (i.e., right to his or her own decisions and beliefs)
- * Beneficence (helping people as the primary goal)
- * Nonmaleficence (refraining from harming people)
- * Justice (distributing burdens and benefits fairly)

In the other popular system, casuists employ a case-based approach to decision making. Here, an attempt is made to compare the case at hand to similar, yet clearer, cases. Casuists believe that people of experience can usually agree on decisions in clear "paradigm" cases. These paradigms help us to match circumstances with the most commendable solutions. Then, by analogy, we work to resolve less clear cases. That is, we can see which paradigms the issue in question most closely resembles and adapt the solutions to fit. For example, in the situation outlined in Case 2 concerning whether resuscitation attempts should be employed; the casuist must first identify the issues. The casuist would likely conclude that the main issues are the patient's right to make decisions concerning care and to decide whether previous decisions are applicable to his or her specific situation. The casuist would look for other cases where, even though the specifics were different, the main dilemma was adherence to DNR orders. For instance, the casuist might compare the present case to an earlier case wherein a patient suffered cardiopulmonary arrest while under anesthesia in the surgical suite. The casuist reviews the older, already resolved case and decides whether the issues are sufficiently relevant to make the solution applicable to the new case in question. The casuist system often draws from the U.S. legal system, in which the decisions of earlier cases are used as precedents to argue the merits of the present case.

AN APPROACH TO ETHICAL DECISION MAKING

In medical practice, professionals are taught to recognize certain situations that commonly recur. By placing individuals in categories, medical professionals can organize relevant data and draw on previous experience with similar cases. For instance, a patient with a history of

hives after the injection of iodinated contrast requires a CT scan. Categorizing the patient as at an elevated risk of an allergic response initiates the search for answers to other related questions. How extensive was the previous reaction? Can the clinical questions be answered as well using an alternate diagnostic test? Is the scan of an emergency nature, or is there time to administer prophylactic steroids before scanning? In this way, the health-care professionals learn to gather additional information concerning specific cases, to anticipate associated problems or complications, and to develop an approach to a category of medical issues. Certainly, the course of action must be tailored to specific cases, because different cases are seldom identical. Additionally, there are always exceptional situations. However, the majority of cases can be managed by a standard approach—that is, a clinical algorithm. These algorithms also establish a standard of care against which deviations to the standard may be more readily identified, thus acting as a red flag and drawing attention to items requiring further scrutiny. The more algorithms health professionals are familiar with, the better prepared they are for clinical practice.

"Let us ask...what is it about our thinking that has got us into trouble? The fault lies in our unreasonable wish to have simple rules for our conduct in a complex world. We are on a wild goose chase if we are looking for a set of a few simple rules, without exceptions, which will give us the right answer to all moral questions. Life is too complicated for that. There is no substitute for careful thought about particular cases."

— R.M. Hare, *Application of Moral Philosophy*.⁶

In much the same way, familiarizing oneself with the areas of common ethical issues in patient care can help prepare the clinician for real-life scenarios. By reviewing "teaching cases," healthcare professionals can learn how to apply ethical guidelines to particular situations.⁷ By gaining vicarious experience through the study of instructional cases, clinicians will be able to discern the relevant ethical issues in situations they may face. They will also be able to identify distinguishing case features that separate a new case from other apparently similar cases.

A METHOD OF EVALUATING ETHICAL DILEMMAS

Dr. Bernard Lo, Director of the University of California's medical ethics program, has outlined a three-step process to assist physicians in approaching ethical dilemmas in clinical medicine.³ Lo points out that such a systematic approach ensures that all important aspects of the issue

are considered and that similar cases are resolved consistently. This approach (Table 1) includes the following steps:

- * Gathering information
- * Clarifying ethical issues
- * Resolving the dilemma

GATHERING INFORMATION

It is important to gather as much pertinent information as possible: (1) accurate data regarding the patient's diagnosis and prognosis, (2) options for care, and (3) benefits and risks of each alternative. Additionally, psychosocial information is often important, such as the relationship between the patient and the person appointed as the surrogate decision maker.

In the process of obtaining information, it is essential to clarify who the primary decision maker is. Of course, if the patient is competent, he or she is responsible for care decisions. However, if the patient lacks the ability to make such decisions, an appropriate surrogate needs to be agreed upon.

Another step in the data gathering phase is to understand the viewpoint of other persons involved (i.e., family and healthcare team members). Healthcare providers who provide direct care to the patient are a valuable resource because they often have a close relationship with the patient and family, answer questions, and explain plans for care.

CLARIFYING THE ETHICAL ISSUES.

Clarifying an ethical dilemma is a necessary step in resolving it. How a case is structured often has an impact on how it is resolved. Case 1 could be framed as a problem with a family unwilling to accept a terminal diagnosis. However, it is more useful to focus on more specific ethical issues, such as the definitions of futility, truth-telling, voluntariness, and the many circumstances that surround surrogate decision making.

Clarifying the nature of the ethical disagreements often reveals that different ethical guidelines are in conflict. In Case 1, respecting a patient's wishes conflicts with providing treatment that is risky and may be medically futile. In other situations, people may agree on ethical guidelines but disagree over how to interpret them. In Case 2, the radiologist may believe in the patient's right to protection from unwanted resuscitative care, but feels this situation is clearly not the event for which the DNR status was intended.

RESOLVING THE DILEMMA.

Pragmatic issues can often complicate implementing a solution. For example, does the patient have reliable transportation to the dialysis center? Once a course of action is decided on it must be accurately communicated to each of the stakeholders. Meetings with the health-

care team and the patient's family can often clarify each person's role in the plan's implementation. Such meetings can also help to identify psychosocial issues that must be addressed or areas where more assistance is needed.

Table 1. An Approach to Ethical Dilemmas in Patient Care

<p>Gather Information</p> <ul style="list-style-type: none"> • What is the clinical situation? • Who is the primary decision maker? • What are the views of the healthcare team and other persons involved?
<p>Clarify the Ethical Issues</p> <ul style="list-style-type: none"> • Decide what the pertinent ethical issues and conflicts are. • Understand the best thinking on these pertinent issues.
<p>Resolve the Dilemma</p> <ul style="list-style-type: none"> • Decide what pragmatic issues complicate the case. • Hold a team meeting. • Meet with the patient or family. • Deal with psychosocial issues directly. • Seek assistance as needed.

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IMPLEMENTATION OF ETHICAL PRINCIPLES

Ethical dilemmas occur because there are good reasons for conflicting courses of action. Reviewing general principles that influence choices may be helpful.

PERSONAL RESPECT

Treating patients with respect encompasses several ethical obligations. First and foremost, all healthcare providers must respect the decisions of autonomous patients. That is, individuals who are capable of making informed decisions must be free from the interference and control of others.

In the healthcare environment, autonomy justifies the doctrine of informed consent. This doctrine dictates that informed, competent patients may refuse unwanted medical interventions. Autonomous patients may choose among medically feasible alternatives even when their choices conflict with physician recommendations or the wishes of family members.

However, the notion of personal respect goes a step fur-

ther. All patients, whether autonomous or not, must be treated with compassion and dignity. Even if a patient's decision-making capacity is impaired by illness or medication, it is the obligation of the health professionals to treat that patient with caring and empathy.

AVOID DECEPTION AND NONDISCLOSURE

It is possible to mislead patients without technically lying. Giving only partial information may be literally considered truthful; however, this action is deceptive. This type of deception, as well as outright lying, violates patient autonomy because decisions are then made based on false premises.

MAINTAIN CONFIDENTIALITY

Confidentiality is the patient's basic right to privacy. A respect for privacy encourages patients to seek treatment and discuss their problems openly. In addition, confidentiality protects patients from the harm or embarrassment that could occur if information about their medical history were widely known. Although not deliberate in many cases, violation of patient confidentiality is generally the most commonly abused aspect of medical ethics.⁸ Healthcare providers have a tendency to discuss various aspects of their work among themselves, sometimes with little thought as to who else might overhear. Patients and the public expect technologists and sonographers to keep medical information confidential.

KEEP PROMISES

Trusting relationships are based on the premise that individuals will keep their promises. Furthermore, knowing that healthcare providers will keep their promises can relieve patients' anxiety about their medical treatment.

ACT IN THE BEST INTERESTS OF PATIENTS

The guideline of nonmaleficence—or the policy of “doing no harm”—forbids technologists and other healthcare professionals from intentionally causing harm (i.e., physical assault) or not subjecting another to harm.⁸ However, this principle provides only limited guidance, because many beneficial interventions also entail serious risks and side effects. For example, consider the medical professional confronted with the situation of a terminally ill patient. Should enough pain-reducing drugs be given to make the patient comfortable even when these drugs may hasten death or cause drug addiction? That is, is it more important that the patient be made comfortable through pain reduction (beneficence) or be protected from the risk of drug addiction or even early death (nonmaleficence)?

Additionally, acting in a patient's best interest may con-

flict with respecting that patient's informed choices. For example, consider a patient who refuses antibiotic therapy for a life-threatening but treatable infection. Accepting such a refusal as justified by respect of patient autonomy would not be acting in the best interest of the patient. In this situation, the medical professional is expected to listen, educate, and try to persuade the patient to accept beneficial treatment or negotiate a mutually acceptable compromise. However, if the patient cannot be swayed, the patient's informed choices should prevail.

ALLOCATE RESOURCES JUSTLY

Justice deals with the balancing and fair distribution of medical care, facilities, and resources. Patients in identical situations should be treated the same, regardless of race, ethnicity, or socioeconomic status. To act otherwise would be arbitrary, biased, and unfair.

ETHICAL CONSENSUS AND CONTROVERSY

There are many issues for which healthcare professionals, ethicists, and the courts agree on the proper course of action. In some cases, agreement on what should be done exists even when there is disagreement on the reasons for the action. Subsequent sections of this article will highlight some areas of widespread ethical agreement in addition to areas of continuing debate.

MEDICAL FUTILITY

The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy.

— Martin Luther King, Jr., *Strength to Love*

Allowing a patient to die raises a complicated set of ethical issues. Actively helping a patient achieve death, often referred to as euthanasia, raises still other moral questions. For many years, medical ethicists have debated whether there is a significant distinction between the two courses of action. For the purpose of our discussion on medical futility, we refer to the first set of issues relating to allowing a patient to die.

The American Medical Association's Council on Ethical and Judicial Affairs issued the following statement in June of 1994:

“Physicians are not ethically obligated to deliver care that, in their best professional judgment, will not have a reasonable chance of benefiting their patients. Patients should not be given treatments simply because they demand them. Denial of treatment should be justified by reliance on openly stated ethical principles and acceptable standards of care, as defined in Opinion 2.03 [Allocation of Limited Medical Resources] and

2.095 [Cost Containment], not on the concept of “futility,” which cannot be meaningfully defined.”

This statement refuses to define the concept of futility and instead uses cost issues to justify not providing medical care that has little or no chance of success. This rationale is troublesome for many as expressed in the following commentary from Mark Siegler:¹⁰ “The coming together of two laudable movements—death with dignity and cost containment—concerns me. You start with those in a permanent vegetative state. Then you move to the mentally retarded, the permanently senile, seriously ill defective newborns and the physically handicapped.” This comment by Siegler points out the slippery slope that questions of medical ethics can sometimes lead to. In this case, if society withdraws medical care for those with little or no hope of recovery will the practice spread to denying care to other individuals with less dramatic, but equally permanent, defects?

Others in the field have attempted to define medical futility. In general, futility is any treatment that fails to provide cure, restoration, or palliation (pain relief) to a patient. One definition, taken from a medical futility policy¹⁰ elaborated on in the next section, states:

Medically Futile. (1) Futility means any treatment that, within a reasonable degree of medical certainty, is seen to be without benefit to the patient, as when the treatment at issue is seen as ineffective with regard to a clinical problem that it would ordinarily be used to treat. An example of this would be cardiopulmonary resuscitation (CPR) for a patient with cardiac rupture or end-stage cardiogenic shock. (2) Futility judgment may also be made in such cases wherein treatment provides neither palliation, restoration nor cure. An example of this would be hemodialysis or CPR for a permanently unconscious patient.”

ONE INSTITUTION'S EXPERIENCE

Stephen Wear and colleagues have outlined the process of developing and implementing a medical futility policy.¹¹ This policy was created to address cases in which patients and/or families have continued to demand treatment that is seen by healthcare staff to be without benefit to the patient. In these cases, the demands have continued even after strenuous counseling to the contrary.

As an introduction, Wear states:

“Healthcare providers, at this late date, can hardly be unacquainted with futile treatment. Either through their own experience, those of colleagues, or minimal exposure to the professional literature, the provision of non-beneficial, often burdensome treatment has approached the routine. Various causes of this scenario include the fact that adequate prior discussions and orders are not generated or that some party (e.g., the doctor, patient, and/or family members) had insisted on them. Whether it be the end-stage, moribund patient who gets resuscitated in the dead of night, or the patient in a persistent

vegetative state who continues to get full intensive care, the examples and number here are legion.”

In recent years much has been written on the various approaches to this issue. From a legal standpoint, the development of living wills attempt to deal with such scenarios preemptively. Discussions in the bioethics literature, coupled with legal initiatives, have resulted in substantial progress being made in providing those concerned with options and guidance. As Wear points out, these developments have turned the tide on the earlier, “treat at all costs and to the bitter end” philosophy as well as the parallel problem that anyone who attempted to abate treatment for devastated and/or dying patients did so at the risk of at least perceived, if not real, legal jeopardy.

Despite the progress made, the issues surrounding medical futility remain controversial and require continual reevaluation. This reevaluation is needed because it will always be easier to default into continued aggressive treatment and avoid the wrenching discussions that must occur if such treatment is to be abated. Further, even if the discussions are initiated, there is no guarantee that all parties will come to a consensus concerning further action. In many cases, exhaustive efforts that have been made by healthcare staff to assist families in recognizing the futility of further aggressive treatment have been entirely unsuccessful. In addition, with careful consideration institutional ethics leaders can educate caregivers thus avoiding the initiation of care which may later need to be withdrawn.

The policy created by Wear and colleagues was designed to unilaterally justify withholding futile care over the objections of patients and/or their families. However, for this policy to be applied, certain conditions must be met. In a nutshell, these conditions are:

1. The futility claim must be well-based scientifically and have the concurrence of another attending physician.
2. There must be confirmation that adequate patient/family counseling has already been applied to settle the disagreement; this requires that two members of the ethics consultation team have consulted on the case.
3. Institutional support must be secured by getting approval from the Chief of Staff.
4. The patient or patient's surrogate has been notified of this judgment and has been appropriately counseled regarding its implications. Furthermore, even after the decision to withhold treatment is made, but before action is taken, certain options must be explained to the patient or the patient's legal representative or surrogate. These options are:
 - The patient may be transferred to another facility.
 - The cost of arrangements for such transfer will be borne by the patient or the patient's legal

"We must as second best...take the least of the evils."

– Aristotle, *Nicomachean Ethics*

representative or surrogate.

- The patient or the patient's legal representative or surrogate has the right to challenge the decision by petitioning the appropriate court to enjoin the medical center from abating the act(s) it has determined to be medically futile.

It is interesting to note that 18 months after implementing the policy just described, the medical center reported that it has not yet actually exercised the unilateral abatement of treatment that the policy authorizes. This is not to say that the policy has been useless; on the contrary, numerous cases have been proposed as futile. However, by applying the formal process, all cases have been resolved without the need to withhold treatment against the wishes of the patient/family.

Issues surrounding futility—its definition and whether the patient, the healthcare system, or the courts should have ultimate authority in life or death—remain largely unresolved and continue to challenge medical ethicists. Although it may be possible to design a theoretical or conceptual statement, it is much harder to formulate clinical guidelines for practical use. In addition to providing direction for healthcare providers in emotionally charged situations, such guidelines should also minimize abuse and error while still providing sufficient clinical flexibility. The expertise and experience of Wear and colleagues offers other healthcare providers the opportunity to examine the problem with one possible solution for the dilemma of medical futility.

ADVANCED DIRECTIVES

Many patients fear the loss of personal control if their decision-making capacity is impaired. These patients worry that medical interventions could be imposed on them against their wishes. Advanced directives are statements by competent patients that indicate who should act as surrogate and what kind of care they would like to have if they should lose their decision-making capacity. Advanced directives respect patients' autonomy by allowing their preferences and values to guide care even when they can no longer make informed decisions. Often, advanced directives relieve stress on family members who must make these decisions.

There are different types of advanced directives. Patient conversations with relative or friends regarding interventions wanted or not wanted in future situations are the most common type of advanced directive.³ Although legal, a drawback to an oral directive is that family or friends may not accurately recall a patient's statement or they may disagree over what the patient said.

LIVING WILL

This written advanced directive takes effect when the patient is terminally ill.¹² This type of directive instructs physicians to withhold or withdraw life-sustaining treatment. However, various states define a "terminal condition" differently, typically only in very general terms. In most states, conditions such as Alzheimer's dementia would not be covered by living wills.

DURABLE POWER OF ATTORNEY

A durable power of attorney (DPA), also known as a healthcare proxy, is another kind of advanced directive. A DPA allows the patient to appoint an agent to make medical decisions if the patient loses his/her decision-making capacity. A DPA becomes active any time the patient is unconscious or unable to make medical decisions.

DO NOT RESUSCITATE (DNR)

Unless given other instructions, hospital staff members are legally and ethically obligated to try to help all patients whose hearts have stopped or who have stopped breathing. Cardiopulmonary resuscitation (CPR) is used throughout the hospital setting whenever a patient's breathing or heart has stopped. A DNR is a request to not have CPR performed. Doctors and hospitals in all states¹² accept DNR orders, and a policy on DNR orders is required of all hospitals seeking accreditation from the Joint Commission on Accreditation of Health Care Organizations.¹³

DNR ORDERS IN THE RADIOLOGY DEPARTMENT

The DNR status of a patient may be decided months or even years before death is anticipated. Therefore, it is not unusual for patients with a DNR order to undergo imaging procedures. However, little information is available on the acceptability and applicability of DNR orders in this setting.

A 1998 survey¹³ revealed that only 18.5% of the radiology departments surveyed had written DNR protocols. Medical chart review was the most common method used to establish DNR status. Additionally, the survey found that only 70% of departments strictly honored the DNR order, and 38% of departments had resuscitated patients with DNR orders in their charts.

Vincent McDermott speculated that some contributing factors to overriding a DNR order in the radiology department include:

- * Absence of an established physician-patient relationship
- * Fear of allegations of medical negligence
- * Skepticism about the applicability of the DNR order to the circumstances of the cardiac arrest in the radiology setting.

* Concern that the episode may be iatrogenic (i.e., caused by the imaging procedure)¹⁴

Furthermore, McDermott reveals an important distinction:

“The patient with DNR status who experiences cardiorespiratory arrest in the radiology department while awaiting chest radiography poses an ethical problem for the radiologist that differs greatly from that of the patient who experiences severe but treatable allergic reaction to contrast media during computed tomography. The former patient is probably experiencing a consequence of the natural course of disease; the terminal event just happens to occur away from the bedside. The latter patient is experiencing an iatrogenic complication that was not caused by the underlying illness and was clearly not the event for which the DNR status was intended.”

In another paper¹⁵ addressing the issue of dealing with DNR orders in the radiology department, the authors argue that a DNR order should be suspended during interventional procedures because the patient’s request for the order may have been made on the basis of beliefs that may not be correct in a radiologic context, such as the belief that there is a low probability of resuscitation resulting in a good outcome. In the radiology department, some causes of cardiac arrest such as idiosyncratic reactions to procedures or injections of contrast material may be readily addressed. In fact, surgical experience suggests that cardiac arrests that result directly from an interventional procedure—such as pneumothorax due to central catheter insertion or hypoxia due to esophageal intubation—are much more likely to be reversible than cardiac arrests that occur when the patient is on the ward.^{16,17} Faced with similar concerns, some anesthesiologists and surgeons commonly suspend DNR orders in the operating room.¹⁸

Overriding DNR orders is by no means a universal practice, and on the other side of the debate is the opinion that it is inconsistent to override a DNR order simply because the final precipitating factor in a cardiorespiratory arrest may be iatrogenic.^{19,20} In expressing the opinion that DNR orders should not be so easily overridden, Jacobson and coworkers¹⁵ write:

“Regardless of how a resuscitative effort turns out, some patients or their families regard radiologists who override their interests as arrogant and presumptuous. When physicians assert that they are not bound by DNR orders, and that furthermore, that it is physicians who should decide under which circumstances a DNR order is appropriate, the patient’s status in the already unequal physician–patient relationship is diminished. Patients and their right to participate in healthcare decisions that affect them are devalued, and both patients and their families may feel betrayed by such disregard for them and their wishes. A physician’s violation of a DNR order may seem especially offensive to patients or their families if they interpret such a violation as interference not only with their wishes but also with a divine plan. When a radiolo-

gist decides to override a patient’s wishes, that decision can be more than offensive. If a medical procedure, such as resuscitation, is not authorized and indeed is refused through a DNR order, performing that procedure constitutes battery and is illegal.”

Undoubtedly, resuscitating a patient against his or her wishes is a lapse in good patient care. However, strict adherence to the DNR policy may not always be the right approach. It should be clear from this discussion that, although advanced directives are very useful tools that help healthcare providers abide by patients’ wishes, they are far from perfect. In a situation such as that of Mr. Smith (Case 2), the technologist’s or sonographer’s best course of action is to quickly summon the radiologist and immediately point out the DNR order and any other relevant information concerning the patient’s wishes. The decision to override or abide by the charted DNR order must be left to the radiologist.

CONCLUSION

Healthcare providers commonly face a variety of difficult ethical issues in clinical practice. Professionals working in the radiology department are not exempt from such dilemmas. Reading about such issues, thinking about them, and understanding their complexities and the conflicting points of view associated with these issues can help technologists feel more at ease with the ethical quandaries they face each working day.

GLOSSARY OF TERMS

Term	Definition
Altruism	Derived from the Greek words meaning "self-ruled." A concern primarily with the well-being of others rather than one's own self-interests.
Autonomy	The right of individuals to determine their own fates and live their lives the way they choose, as long as these actions do not interfere with the rights of others.
Beneficence	Performing an act that is good or brings about good effects.
Casuistry	Casuistry (also referred to as "case-based reasoning") is a system employed by medical ethicists that attempts to solve specific cases by comparing them to a similar, yet clearer case in which virtually anyone could agree on a solution.
Consequentialism	Ethical theories that are concerned with the consequences that follow from specific actions. Examples include ethical relativism and utilitarianism.
Deontology	Deontology—literally "the study of rules"—is an ethical theory concerned with following the proper duties pertaining to one's given role. Contrasted with consequentialism.
Euthanasia	Euthanasia, the Greek word for "happy death," has evolved to denote the deliberate ending of a human life. "Active" euthanasia refers to the direct killing of a patient. "Passive" euthanasia involves the withdrawal of medical technologies in order to allow the underlying disease to take its natural course. "Voluntary" euthanasia means that the act is undertaken at the patient's request.
Justice	Justice is defined as the fair distributing of burdens and benefits.
Moribund	Literally means "about to die."
Nonmaleficence	Not performing an action that would cause harm to a patient. "Above all, first do no harm."
Principlism	Also referred to as The Four Principles Approach. A system used to make ethical decisions by weighing the importance of four separate elements: respecting each person's autonomy, the principle of beneficence, the related principle of nonmaleficence, and justice.
Slippery Slope Argument	If X is allowed, Y will follow, and Y is ethically unacceptable
Utilitarianism	A moral framework in which actions are judged primarily by their results.
Virtue Ethics	A moral theory that can be traced to the writings of Aristotle, which holds that ethics is concerned with developing a virtuous character.

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SOCIETY OF DIAGNOSTIC MEDICAL SONOGRAPHERS POSITION STATEMENT

Code of Ethics for the Profession of Diagnostic Medical Sonography

PREAMBLE

The goal of this code of ethics is to promote excellence in patient care by fostering responsibility and accountability among diagnostic medical sonographers. In so doing, the integrity of the profession of diagnostic medical sonography will be maintained.

OBJECTIVES

1. To create and encourage an environment where professional and ethical issues are discussed and addressed.
2. To help the individual diagnostic medical sonographer identify ethical issues.
3. To provide guidelines for individual diagnostic medical sonographers regarding ethical behavior.

PRINCIPLES

Principle I: In order to promote patient well-being, the diagnostic medical sonographer shall:

- A. Provide information to the patient about the purpose of the sonography procedure and respond to the patient's questions and concerns.
- B. Respect the patient's autonomy and the right to refuse the procedure.
- C. Recognize the patient's individuality and provide care in a non-judgmental and non-discriminatory manner.
- D. Promote the privacy, dignity and comfort of the patient by thoroughly explaining the examination, patient positioning and implementing proper draping techniques.
- E. Maintain confidentiality of acquired patient information, and follow national patient privacy regulations as required by the "Health Insurance Portability and Accountability Act of 1996 (HIPAA)."
- F. Promote patient safety during the provision of sonography procedures and while the patient is in the care of the diagnostic medical sonographer.

Principle II: To promote the highest level of competent practice, diagnostic medical sonographers shall:

- A. Obtain appropriate diagnostic medical sonography education and clinical skills to ensure competence.
- B. Achieve and maintain specialty specific sonography credentials. Sonography credentials must be awarded by a national sonography credentialing body that is accredited by a national organization which accredits credentialing bodies, i.e., the National Commission for Certifying Agencies (NCCA); <http://www.noca.org/ncca/ncca.htm> or the International

Organization for Standardization (ISO); <http://www.iso.org/iso/en/ISOOnline.frontpage>.

- C. Uphold professional standards by adhering to defined technical protocols and diagnostic criteria established by peer review.
- D. Acknowledge personal and legal limits, practice within the defined scope of practice, and assume responsibility for his/her actions.
- E. Maintain continued competence through life-long learning, which includes continuing education, acquisition of specialty specific credentials and recertification.
- F. Perform medically indicated ultrasound studies, ordered by a licensed physician or their designated health care provider.
- G. Protect patients and/or study subjects by adhering to oversight and approval of investigational procedures, including documented informed consent.
- H. Refrain from the use of any substances that may alter judgment or skill and thereby compromise patient care.
- I. Be accountable and participate in regular assessment and review of equipment, procedures, protocols, and results. This can be accomplished through facility accreditation.

Principle III: To promote professional integrity and public trust, the diagnostic medical sonographer shall:

- A. Be truthful and promote appropriate communications with patients and colleagues.
- B. Respect the rights of patients, colleagues and yourself.
- C. Avoid conflicts of interest and situations that exploit others or misrepresent information.
- D. Accurately represent his/her experience, education and credentialing.
- E. Promote equitable access to care.
- F. Collaborate with professional colleagues to create an environment that promotes communication and respect.
- G. Communicate and collaborate with others to promote ethical practice.
- H. Engage in ethical billing practices.
- I. Engage only in legal arrangements in the medical industry.
- J. Report deviations from the Code of Ethics to institutional leadership for internal sanctions, local intervention and/or criminal prosecution. The Code of Ethics can serve as a valuable tool to develop local policies and procedures.

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AMERICAN SOCIETY OF RADIOLOGIC TECHNOLOGISTS' CODE OF ETHICS

1. The radiologic technologist conducts herself or himself in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patient care.
2. The radiologic technologist acts to advance the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
3. The radiologic technologist delivers patient care and service unrestricted by concerns of personal attributes or the nature of the disease or illness, and without discrimination, regardless of sex, race, creed, religion, or socioeconomic status.
4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purpose for which they were designed and employs procedures and techniques appropriately.
5. The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
6. The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
7. The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice and demonstrates expertise in minimizing radiation exposure to the patient, self and other members of the health care team.
8. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
9. The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
10. The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues and investigating new aspects of professional practice.

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A QUESTION OF ETHICS POST TEST

Expires: May 15, 2011 Approved for 2 ARRT Category A Credits.

1. **The word ethics arose from the Greek word meaning**
 - a. morals or duty.
 - b. dilemma.
 - c. argument or impasse.
 - d. character or custom.
2. **As a branch of philosophy, ethics is considered a _____ science.**
 - a. normative
 - b. formal
 - c. empirical
 - d. creative
3. **The definition of "altruism" is**
 - a. always telling the truth.
 - b. a concern primarily with the well-being of others rather than ones' own self-interests.
 - c. to act in a way that serves self-interest before the good of society.
 - d. to avoid deception and nondisclosure.
4. **Ethical obligations usually**
 - a. exceed legal duties.
 - b. are not as stringent as legal duties.
 - c. are more clearly specified than legal duties.
 - d. Set the limit on what is considered the minimally acceptable standard.
5. **Deontology is a/an**
 - a. duty-based branch of ethical teaching.
 - b. set of legal statutes relating to the practice of medicine.
 - c. philosophical principle that uses God as its authority.
 - d. empirical science.
6. **The idea of autonomy refers to**
 - a. actions that people take automatically, without serious consideration of the consequences.
 - b. the understanding that the physician is the best person to make decisions concerning the medical care of a patient.
 - c. the right of individual to determine their own fates and live their lives the way they choose.
 - d. the appointment of another person to make decisions on the patient's behalf.
7. **The principle of consequentialism is best summarized by what statement?**
 - a. If it is legal, it must also be right.
 - b. The greatest good for the greatest number of people.
 - c. The doctor knows best.
 - d. All persons must decide for themselves what is right.
8. **The philosophical idea of virtue ethics holds that**
 - a. left alone without outside pressure, a person will always make the most ethical decisions.

- b. only people who have proved to be virtuous should be allowed to make ethical decisions.
- c. those that are taught to be good will do what is right.
- d. some individuals are basically evil and cannot be taught to do what is right.
- 9. A criticism of the principles of deontology, consequentialism, and virtue theory is that they are too**
- a. general or too abstract to apply to the complex ethical issues in medicine.
- b. specific and do not offer enough flexibility to be applied to medical issues.
- c. complicated and cannot be understood without formal training in ethics.
- d. idealistic and cannot be applied to real-life scenarios.
- 10. The Four Principles Approach is also known as**
- a. realism.
- b. principalism.
- c. humanitarianism.
- d. paternalism.
- 11. The definition of beneficence is**
- a. performing an act that is good or that brings about good effects.
- b. a person that has given someone financial help.
- c. providing medical care without the express permission of the patient.
- d. the advancement or promotion of one's own interests.
- 12. Nonmaleficence can be best summarized by which statement?**
- a. Any action is better than doing nothing.
- b. Those who are taught to be good will do what is right.
- c. Above all, first do no harm.
- d. A person's action may be legal, but not ethical.
- 13. Within the context of principalism, justice refers to**
- a. the administration of the law.
- b. distributing burdens and benefits fairly.
- c. virtuous behavior.
- d. the use of authority to uphold what is right.
- 14. Casuistry is also referred to as**
- a. The Four Principles Approach.
- b. beneficence.
- c. virtue ethics.
- d. case-based reasoning.
- 15. Casuists attempt to resolve ethical dilemmas by**
- a. comparing the situation to a similar, yet clearer case that has already been decided.
- b. applying the principles of autonomy, beneficence, nonmaleficence, and justice.
- c. determining what is morally correct.
- d. surveying all stakeholders, and allowing the majority opinion to stand.
- 16. What are the steps Lo recommends in addressing ethical dilemmas?**
- a. Consult an attorney and bring the case to the hospital's Chief of Staff
- b. Gather information, clarify ethical issues, and resolve the dilemma
- c. Look for legal precedents, inform the family of the physician's decision, and carry out the action
- d. Bring the case to a medical ethics panel, put the panel decision in writing, and carry out the action
- 17. If a patient lacks the ability to make decisions concerning his or her care, the person that is appointed to make decisions on the patient's behalf is called a**
- a. replacement.
- b. stand-in.
- c. custodian.
- d. surrogate.
- 18. Respecting patients' autonomy and treating them with compassion and dignity**
- a. are legal but not ethical obligations.
- b. are only necessary when the patient is competent and coherent.
- c. fall under the broader ethical principle of personal respect.
- d. are actions that are preferred but not expected in all situations.
- 19. The doctrine of informed consent is justified by**
- a. autonomy.
- b. maintaining confidentiality.
- c. the approval of the patient's physician.
- d. the agreement of family members.
- 20. The principle of the just allocation of resources states that**
- a. cost should never be a factor in medical decisions.
- b. everyone must have the best possible care, regardless of cost.
- c. patients in identical situations should be treated the same.
- d. in some situations it is acceptable to grant or withhold medical resources due to race, ethnicity, or socio-economic status.
- 21. The American Medical Associations' Council on Ethical and Judicial Affairs takes the position that**
- a. a physician must provide care at the request of the patient or family, even if there is no chance that the care will benefit the patient.
- b. patients must be given treatment if they demand it.
- c. the physician may refuse to deliver care on the concept of futility.
- d. physicians are not ethically obligated to deliver care that, in their best professional judgment, will not have a reasonable chance of benefiting their patients.

22. The slippery slope argument can be summarized as

- a. once you provide a specific type of care for one individual, you must make it available to all others.
- b. if the law is broken in one instance, then all remaining laws will be challenged.
- c. if X is allowed, then Y will follow, and Y is ethically unacceptable.
- d. there are no good answers to many ethical dilemmas.

23. One definition of medical futility is any treatment

- a. that fails to provide cure, restoration, or palliation to a patient.
- b. not authorized by the patient's insurance company.
- c. that is still considered experimental.
- d. that only relieves pain, without providing a cure to the underlying disease.

24. A moribund patient is one that

- a. has a good chance of recovery.
- b. is close to death.
- c. is in a persistent vegetative state.
- d. requires immediate treatment.

25. One of the difficulties in avoiding medically futile treatment is

- a. it is usually cost effective to continue treatment.
- b. that there are financial rewards for the health-care provider to continue treatment.
- c. it is easier to continue aggressive treatment and avoid the emotionally difficult discussions necessary to stop such treatment.
- d. insurance companies encourage the continuation of treatment, even if it is futile.

26. According to the policy created by Wear and colleagues, which of the following conditions must be met before medical care is withheld over the objections of patients and/or their families?

1. The patient's insurance company must be consulted and approval granted.
2. The futility claim must have the agreement of another attending physician.
3. There must be confirmation that adequate patient/family counseling has been provided.
 - a. Choices 1 and 2
 - b. Choices 2 and 3
 - c. Choices 1 and 3
 - d. Choices 1, 2, and 3

27. Advanced directives

- a. are only valid if completed with the help of an attorney.
- b. take away a person's autonomy.
- c. take effect if the patient should lose decision-making capacity.
- d. typically add to the stress of family members who must make decisions for the patient.

28. A durable power of attorney

- a. appoints an attorney to make decisions for the patient.

- b. becomes active any time the patient is unconscious or unable to make medical decisions.
- c. provides instructions on whether or not the patient wants attempts at resuscitation to be made.
- d. is final and cannot be rescinded, even by a competent patient.

29. DNR orders

- a. are not recognized in many states.
- b. are not recognized by many doctors.
- c. are automatic. A patient who wants attempts at resuscitation to be made must specify this upon arrival at the hospital.
- d. may be decided months or even years before death is anticipated.

30. In a 1998 survey of radiology department, it was found that

- a. all departments had written DNR protocols.
- b. 100% of departments strictly honored the DNR order.
- c. medical chart review was the most common method for determining DNR status.
- d. no instances of resuscitation of patients with DNR orders had been reported.



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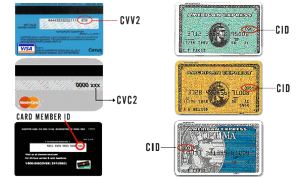
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