■ SPECIAL ARTICLE

Anesthesiology
1997; 87:411-7
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Lippincott-Raven Publishers

An Introduction To Ethics

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"The cataclysmic transformation of the practice of medicine has reflected the rate of change in both its own scientific foundation and the nature of the society it serves. As a consequence, we as physicians are ever more frequently confronted with complex ethical and moral dilemmas that impact both our professional and personal lives."‡

This article, "An Introduction to Ethics," represents the first of a series of four articles that will appear in ANESTHESIOLOGY in the next several months. Other articles will include "The End-of-Life Sequence," "Informed Consent," and "How Anesthesiologists Should Use the Ethics Consultation Service." All four articles were written by Drs. Waisel and Truog and have been extensively reviewed by practitioners, formal ethicists, and legal experts. They are being presented because we believe that the study of ethics is important to all physicians, including anesthesiologists. The authors have made no effort to define what is right or wrong or to dictate the correct approach to the dilemmas that confront anesthesiologists every day. Instead, they have tried to provide a framework or background to aid the clinician in coping with eithical difficulties or conflicts. We hope you will find these articles interesting, stimulating, and enlightening. — MMT

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Received from the Department of Anesthesiology, Wilford Hall Medical Center, Lackland Air Force Base, Texas, and the Department of Anesthesiology, Children's Hospital, Harvard Medical School, Boston, Massachusetts. Submitted for publication October 10, 1995. Accepted for publication April 1, 1997. The views expressed in this article are those of the authors and do not reflect the official policy of the Department of Defense or other Departments of the US Government.

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Key words: biomedical ethics, education.

‡ Jackson SH: No right answers, but a lot of good questions. American Society of Anesthesiologists Newsletter 1994; 58:5.

VIRTUALLY every anesthesiologist must deal with ethical issues daily. Some of these situations are recognized as having ethical dimensions, but many are not. Consider, for example:

Whether to seek informed consent from a patient who has received a small dose of midazolam.
Whether to administer blood to the patient at the surgeon's request when the anesthesiologist believes that transfusion is not necessary.
Whether to refuse to participate in the care of a patient who insists on maintaining his or her do-not-resuscitate (DNR) status during surgery.
Whether to use a cheaper but less-effective antiemetic because the hospital is pressuring the anesthesiology department to cut costs.
Whether to specifically inform an anxious patient about the risk of death from anesthesia.
Whether to offer a patient a regional anesthetic for knee arthroscopy when managed care administrators and surgeons would prefer to offer only "speedier" general anesthesia.

The need for greater knowledge and recognition of clinical bioethical issues begins at the level of medical schools and residency programs. This was demonstrated in a self-reporting study of internal medicine residents in which more than 80% of respondents admitted committing at least four actions inconsistent with the American College of Physicians Ethics Manual.[1] Common transgressions included failing to clarify resuscitation preferences of patients infected with HIV, acting as one's own family physician, rationing of care, and being influenced by pharmaceutical companies' incentives. Thirty-seven percent of the residents reported lying to attending physicians, and 23% reported "covering up" something they had forgotten to do with a late entry in the record. The most common reason for acting outside of the guidelines was "I was aware of the guideline, but it did not represent an ethical dilemma to me."[1]

Anesthesiologists may have their own difficulties complying with ethical guidelines. In a review of training

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records of anesthesia residents, more than 20% of the residents received at least one comment about unprofessional behaviors such as abdicating patient care responsibilities and lying.[2] Anesthesiologists voluntarily reported less than 5% of defined intraoperative events to a continuous quality improvement system.[3] Nearly half the respondents in a survey on production pressures reported seeing "an anesthetist pressured to conduct anesthesia in a fashion [the respondent] considered unsafe given the level of urgency of the situation."[4] The authors concluded that production pressure to "avoid case cancellations, eliminate delay in starting cases and provide quick turnaround between cases has caused the occurrence of unsafe actions in the opinion of the respondents."[4]

To encourage awareness and facilitate knowledgeable discussion of several aspects of clinical ethics, we present a series of papers on current ethical issues. The purpose of these papers is to provide anesthesiologists with insight into reasoning about these sorts of dilemmas. It is important to appreciate that there is rarely a cookbook answer and that one undergoes a process for resolving bioethical problems the same as one undergoes a process for resolving medical problems. For example, no consultant in anesthesiology would declare that neosynephrine should be initiated at a certain blood pressure. Instead, the consultant would explain the process of diagnosing the cause of hypotension and the options for tailoring therapy to the patient, procedure, and situation. Even within a specific situation, two consultants may prescribe different but equally successful therapies. Similarly, reasoning about bioethical problems involves analyzing the dilemma and designing individualized solutions. This first paper will review education in ethics and present some basic concepts and terminology.

Why Ethics?

The teaching of ethics is not designed to inspire people to be good; actually the contrary is true—a certain moral goodness is expected in physicians, and if goodness is not present, education probably will not create it. Superior moral reasoning can enhance moral behavior, however, and this is the intention of ethics education during residencies.[5] Moral dilemmas originate when a person is morally obligated to do two different actions but is unable to do both. For example, all physicians have a responsibility to make wise use of scarce and expensive medical resources, yet they also have an obligation to offer patients whatever therapies may be beneficial, regardless of the cost. No physician, no matter how strongly motivated toward ethical practice, can satisfy both of these responsibilities all of the time. The difficulty of weighing one's obligation to a specific patient and to society can be a daily problem for anesthesiologists. Should every patient be given the most expensive antiemetic routinely, or should it be given to only certain groups: those at high risk for emesis, those with a specific type of insurance, those we know personally, or those who need it as a rescue? Should such decisions be based solely on economics? The purpose of education in ethics is to give to physicians tools to help them resolve these unavoidable dilemmas.[6]

The root of many of the ethical dilemmas that originate in clinical practice is that others may not want what we would want for ourselves. A patient may reject an anesthesiologist's advice and choose a riskier anesthetic because the patient prioritizes certain benefits that the anesthetic offers and thus is willing to accept the increased risk. This discordance between patients and physicians has been compounded by the rapid and exponential growth of technology in medicine, often making it puzzling for a physician to know how best to help a patient,[7–9] especially near the end of life.[10,11] Primary care physicians predicting their patients' preferences for cardiopulmonary resuscitation were more accurate than chance in only one of six situations.[12] Professional caregivers are not consistent among themselves in determining appropriate level of care. In a study of what many consider to be a somewhat more homogenous society, Canadian caregivers were asked to recommend a level of care for 12 scenarios. In only one scenario did more than 50% of the caregivers agree on the appropriate level of care.[13] Anesthesiologists, then, should be cautious in helping patients determine their resuscitation status in the operating room. Our society is multicultural and heterogeneous. To assume that a patient and physician share the same values is erroneous.[14,15]

The law is not a sufficient guide either. In many areas of ethical conflict, the law is vague and indeterminate.[8,16] Even in areas where the law is clear, it may not be the final word. As the American College of Physicians Ethics Manual states, "Physicians are morally as well as legally accountable, and the two may not be concordant."[8] The law can be thought of as representing a lower bound for acceptable behavior, whereas ethics articulates a standard to which we should aspire. Con-

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sider two anesthesiologists who stick themselves with needles and are concerned that the patient may be infected with HIV. The patient had refused a preoperative HIV test, however, and the state does not permit testing without consent. One anesthesiologist may choose to postoperatively ask the patient to undergo an HIV test. The other anesthesiologist, however, may send an intraoperative CD4 lymphocyte count, believing that a normal count lessens the likelihood of the patient being HIV positive. Although both approaches may be legal, one approach may be ethically preferable to the other.

Medical ethics used to be taught by one physician indoctrinating the next. Increased specialization and decreased contact between attending physicians and residents limit the opportunities for imparting such wisdom on a personal level. In addition, attending physicians may find it difficult to articulate and specify the pragmatic principles or the ethical underpinnings of their decisions. As a result, residents are more likely to turn to peers, significant others, and nurses for informal ethical consultation before they turn to their attending physicians.[17,18]

Ethical dilemmas occur not only in high-profile, life-or-death decisions but also in routine clinical practice decisions, such as canceling a case.[19] Consider the case of an infant with craniosynostosis who is brought to the hospital for remodeling of the cranial vault, an extensive procedure with large blood loss and the possibility of postoperative ventilation. The family has driven a long distance with all the associated inconveniences (taking time off work, and so on). In the preoperative evaluation, the anesthesiologist notes that the child has clear rhinorrhea and other upper respiratory symptoms. The anesthesiologist must decide whether to cancel the case, based on a small but well-recognized increase in anesthetic risk to the infant under these circumstances.

Decisions like this one are often framed as purely "medical" decisions, but they usually involve substantial ethical components. Should the anesthesiologist simply present the parents with the facts, and let them decide? Or should the anesthesiologist not only present the facts, but also make a recommendation to the parents? Should the anesthesiologist take the decision out of the parents' hands altogether and make a choice based solely on his or her view of the child's best interests, as an advocate for the child? What if the parents want to proceed against the advice of the anesthesiologist? Answers to these questions must certainly be based on sound clinical judgment, but they also involve substantive views about ethical aspects of the patient–physician relationship.[20] The same educational process that is required to identify, diagnose, and manage myocardial ischemia is needed to identify, diagnose, and manage ethical conflicts. Sometimes ethical issues escape detection because "physicians simply may not be able to recognize patients' values as different from their own."[21]

A common belief is that ethics is too "soft" to be taught or that ethics is just trumped up personal opinion.[22,23] Didactic ethics education in anesthesiology residency programs is not widespread.§ A 1993 survey revealed that less than 1% of anesthesia programs had an organized 3-yr curriculum in ethics, and only 23% of programs reported having a formalized schedule of intermittent lectures.[24] Ethics has a long history of being taught effectively. Pellegrino[5] states that "ethics is an eminently practical discipline [that] deals with concrete judgments in situations in which action must be taken despite uncertainty," and this is no different than the practice of clinical medicine. He further argues that one outcome of teaching medical ethics should be "to create a measurable effect on the behaviors of physicians who have had such courses."[5] Several studies indicate a usefulness for teaching ethics, which include a heightened awareness of ethical issues, more ease in using clinical ethics, and less trepidation when faced with ethical dilemmas.[9,17,22,25–29]

In a controlled, prospective study, medical students who received one or two quarters of education in medical ethics had a statistically significant increase in moral reasoning scores than those who had not received this education.[26] Psychiatry residents who received an ethics seminar series in their third year of residency showed minimal changes in personal or moral beliefs but significant changes in attitudes toward some ethical issues; 80% of the residents believed that the course had made a difference in their clinical practice or behavior.[25] In a randomized controlled trial at Johns Hopkins University, internal medicine residents were split into three teaching groups: 25% received a lecture series; 25% received lectures, case conferences, and exposure to an ethicist; and 50% received no specific ethics education. Although knowledge scores did not differ among the three groups, confidence regarding ethical issues

§ This may change because of the Accreditation Council for Graduate Medical Education's requirement to provide education in bioethics. (American Medical Association, Medical Education Group: Graduate Medical Education Directory 1996–1997. Chicago, American Medical Association, 1996, p 27.)

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was increased in the two groups with ethics education.[28] Resident and attending physicians who have previous and continuing education in ethics are more accepting of help from ethics consultations. Participants in a clinical ethics program in a tertiary hospital believed that the program caused a change in personal study, reflection, and actions.[9,22] Practicing physicians who received training in medical ethics "perceived it to be of substantial benefit in confronting the actual ethical issues they encountered in daily practice."[29]

Ethical Theory

Traditionally, the study of ethics has centered on two main theories: utilitarianism and deontology.[30] Utilitarianism claims that an action should be done if it leads to the best possible outcome for the most people. If the desired outcome is happiness, for example, then a utilitarian would act in such a way as to maximize happiness for the most persons. Deontology, on the other hand, holds that certain actions are right or wrong regardless of the outcome. When faced with difficult clinical decisions, most people use a combination of the utilitarian and deontological theories.

Direct application of utilitarian or deontological theories to practical problems often is difficult. Ethicists have developed an intermediate level of reasoning that is based on **principles.** Although the principles are justified on the basis of more abstract theories, they usually can be more easily applied to specific cases. Beauchamp and Childress[30] have developed an approach based on the principles of justice, respect for autonomy, nonmaleficence, and beneficence. These principles have been enormously influential in shaping bioethical discourse, and they will be discussed in more detail.

From a theoretical perspective, one of the problems with principle-based reasoning is that there are no clear rules for resolving problems when the principles conflict. Because of these difficulties, the principle-based approach has been criticized as being too indeterminate to be clinically useful.[31,32] Case-based reasoning (casuistry) has been developed as a more practical alternative. Casuists believe a new case should be analyzed by comparing it with classic cases about which there is consensus. These classic cases are known as *paradigmatic cases.* Critical defining features can be filtered out of the paradigmatic cases and applied to the case in question. By "triangulating" from the paradigmatic cases to the new case, one may arrive at an ethical solution that is most consistent with precedent. Consider, for example, whether a child with Down syndrome and duodenal atresia should undergo surgical correction of the intestine when the parents object and would prefer to let the child die. Relevant paradigmatic cases for reasoning about this question would include otherwise healthy infants with intestinal obstruction (in which case the parental objection would be overridden) and infants with more severe trisomies, like trisomy 13 or 18 (where the parental refusal would be honored). By comparing the ways in which the case in question is similar or dissimilar to the relevant paradigmatic cases, clinicians can triangulate to a conclusion that is most consistent with precedent. This mode of reasoning closely parallels the approach used by judges in applying common law.

The Language of Bioethics

The principles of justice, respect for autonomy, nonmaleficence, and beneficence have permeated the literature of bioethics and should be reviewed. *Justice* refers to giving people what they deserve. In this sense of "being fair," justice seems to speak for itself. The problems originate in articulating the basis on which we determine what is "deserved." This is well seen with the concept of distributive justice, which requires that society devise a morally correct system for allocating its resources.[33] When dialysis was a scarce resource, committees were formed to decide which of the many patients with chronic renal failure should be selected for treatment. In addition to medical factors, at least one committee considered the patient's social standing within the community, past or potential future contributions to society, and familial responsibilities.[34] This method of selection was severely criticized, and today we have much more standardized approaches for distributing scarce resources that are depend less on assessments of social worth. Nevertheless, these issues have not been fully resolved, as evidenced by the recent publicity surrounding the initial decision not to offer a lung transplant to a patient with Down syndrome.‖

The principle of respect for autonomy asserts that informed people have a right to follow a "self-chosen plan."[35] In the context of the patient-physician rela-

‖ Adams JM: From tenacity comes a transplant: Woman with Down's syndrome gets heart, lung. Boston Globe January 24, 1996, p 3.

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tionship, respect for autonomy often involves asking whether the patient's choice is autonomous. Conditions for a choice to be autonomous include (1) substantial capacity for intentional action, (2) substantial understanding, and (3) a substantial independence from controlling influences. The word *substantial* is used to acknowledge that few interactions will reach the utopian ideal of full intention, understanding, and independence. For this reason, in respecting autonomy, physicians realize that tradeoffs are inevitable but that systems of interactions between patients, physicians, insurance companies, and the government should be designed with respect toward preserving liberty.[36] One important way that anesthesiologists do this is by acknowledging the necessity of obtaining informed consent before providing anesthesia and by only overriding this requirement in emergent or otherwise compromising situations.

Despite the importance of this principle, autonomy has become one of the most overworked and misunderstood words in ethical discussions. Some erroneously consider autonomy to be the argumentative bludgeon: once pronounced all other ethical arguments should cease and desist. This is not correct. Respect for autonomy is only one of several important ethical principles, which, when taken in the context of other ethical principles and considerations, may not be the most dominant.

Nonmaleficence and beneficence have similar but distinctly different meanings. *Nonmaleficence* is the obligation to avoid doing harm. It is most familiar as the adage "primum non nocere: above all do no harm." Beneficence, on the other hand, requires not merely restraint from doing harm, but demands active interventions to prevent harm, remove harm, or promote good. *Beneficence* is the obligation to "do good."

One of the problems in applying the principle of nonmaleficence is the difficulty in defining harm. As Beauchamp and Childress note, "what counts as harm to one person may not be a harm at all to another person, because of their competing visions of what constitutes a setback to interests."[37] Disagreements about what constitutes harm are frequently encountered in end-of-life care, particularly when one evaluates the effects of medications that relieve pain and suffering but concomitantly also may hasten death. In this context, ethicists sometimes rely on a controversial principle known as the Doctrine of Double Effect.

The Doctrine of Double Effect places great emphasis on the intention of the caregiver in cases where one's actions may have good and bad effects. The classic example is administration of morphine to relieve pain in the terminally ill patient near the end of life. Although two possible effects of the morphine are recognized and foreseen (relief of pain and respiratory depression), only the good effect (relief of pain) is intended, and thus the caregiver is not held morally culpable if respiratory depression and a sooner death should occur. Although the Doctrine of Double Effect is well entrenched within common morality and some religious teaching, it is not universally accepted.[38,39]

The principle of beneficence originates most often in two broad contexts. The first occurs when a patient chooses a course of action that the physician believes is not in the patient's best interest. In these situations, physicians are faced with the question of whether the patient's choice should be overridden (the issue of justified paternalism).[40] This is the argument anesthesiologists use when they attempt to override the refusal of blood transfusions by Jehovah's Witness patients. In most circumstances, however, the principle of respect for autonomy would take precedence in this situation. The second context involves distributive justice, or the allocation of limited resources, wherein physicians must choose between directing their "beneficence" toward the patient or toward the community and society as a whole. This may be one of the considerations when determining the routine use of more expensive induction agents, muscle relaxants, or antiemetics.

Issues of beneficence and nonmaleficence occur in daily practice. A good example is whether to inform a patient undergoing coronary artery bypass graft about the risk of awareness during anesthesia. The beneficence argument supports discussion of this unlikely but finite complication with the patient because knowledge of the possibility of awareness may help the patient cope with its occurrence. On the other hand, some condone not informing from the standpoint of nonmaleficence, citing patient anxiety and an anecdotal belief that telling a patient about awareness may increase the incidence.

Another commonly misunderstood term is *slippery slope.*[41,42] This term has two distinct meanings: the psychological and the logical. The psychological slippery slope depends on the claim that doing action A will make action B morally and socially easier to do. This is often stated as "the camel's nose under the tent" or "the foot in the door" argument. If an action is accepted, then society may become desensitized and permit other, potentially more heinous, actions. For exam-

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ple, if physician-assisted suicide of the terminally ill is allowed, then it may be easier for society to accept euthanasia and ultimately the involuntary killing of "undesirable" individuals. Or, in anesthesia practice, if an anesthesiologist bows to pressures and anesthetizes patients with insufficient preoperative evaluations, that anesthesiologist may then become more prone to anesthetizing more patients in that situation. Conversely, the logical "slippery slope" claims that if action A can be logically supported, then Action B should also be supported to avoid logical inconsistencies. For example, if we believe that medical treatments may be refused by competent patients and if we conclude that feedings through a gastrostomy tube are a form of medical treatment, then we must conclude that competent patients can refuse tube feedings.

When evaluating the weight of the psychological argument, one should look carefully at the linkage evidence in favor of the psychological claim and not be convinced solely by the possibility that such a progression down the slope may occur. Similarly, the logical type argument should be examined to be certain that each premise is true. In the dilemma cited previously, for example, some would reject the claim that tube feedings should be regarded as a medical treatment.

Biomedical ethics consists of obtaining factual clinical information, clarifying the moral dilemmas, and then identifying alternative solutions to these moral problems. It is in the latter process of mapping out moral solutions that ethical physicians use the moral foundation presented in this article as the basis on which to make ethical decisions.

Areas of Concern for the Anesthesiologist

In future publications of ANESTHESIOLOGY, we will discuss some of the more relevant bioethical issues for anesthesiologists. The next paper will focus on ethical issues surrounding end-of-life topics, such as refusing life-sustaining care, negotiating agreements for DNR status in the operating room, and determining brain death. The following article will review the development and practical application of informed consent. The fourth article will explain the organization, function, and practical activities of institutional ethics committees and how anesthesiologists can use their services.

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