

Ethical issues of resuscitation: an American perspective

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Challenging issues confront emergency physicians routinely when performing cardiopulmonary resuscitation. Ethical issues surrounding resuscitation may include issues of futility, withholding or withdrawing interventions, advance directives, family presence, practising procedures on the newly dead, palliative care, and communication. Principles of bioethics can be valuable in assessing and debating ethical dilemmas. In many cases where curative care is not possible or is not desired, the goal of medical care at the end of life is to provide comfort to the patient and family, rather than initiating technological interventions that are unlikely to benefit the patient.

Challenging issues confront emergency physicians routinely when performing cardiopulmonary resuscitation (CPR). Principles of bioethics can be valuable in assessing and debating ethical dilemmas. Some of the important issues and dilemmas commonly encountered in emergency medicine are discussed. In many cases where curative care is not possible or is not desired, the goal of medical care at the end of life is to provide comfort to the patient and family, rather than initiating technological interventions that are unlikely to benefit the patient.

PRINCIPLES OF MEDICAL ETHICS

Ethics has been defined as the way of understanding and examining the moral life,¹ and as a theory or a system of moral values.² Codes of medical ethics have been established by organisations or individuals as standards of moral and ethical medical care. The Hippocratic Oath is considered one of the oldest codes of medical ethics. In recent years, the American Medical Association (AMA) Code of Ethics (earliest version from 1847), The American College of Emergency Physicians (ACEP) Code of Ethics (1997), and The Society for Academic Emergency Medicine Code of Conduct (1999) have been established to provide guidance to physicians in application of ethical principles to clinical practice.^{3–5} Most ethical codes address common elements, such as beneficence (doing good), non-maleficence (doing no harm), respect for patient autonomy, confidentiality, honesty, distributive justice, and respect for the law. Ethical dilemmas often arise in clinical practice when there is a real or perceived conflict between two ethical principles or values. Ethical dilemmas are resolved by several approaches, which may include elements such as physician judgment, additional information gathering, meetings with

health care professionals, patients, and families, and consultants, such as ethics, risk management, or social work consultants. Although the involvement of the institutional ethics committee or the judicial system is helpful in many clinical settings, decisions at the end of life often do not permit the time necessary for such consultations.

RESUSCITATION

At the end of life, attempts at CPR are commonly performed. In many cases, this is appropriate and has a reasonable likelihood of improving outcome. However, in many other cases where the patient is near the end of life, resuscitation attempts are unlikely to benefit the patient, and may not be in accordance with the values and treatment goals of the patient and family. Understanding the literature regarding resuscitation, outcomes, factors relating to outcomes, and alternatives, are essential to medical decision making regarding resuscitation.

There are numerous ethical issues related to resuscitation. Decisions must be made rapidly, and decisions are often based on information available to the emergency physician, which may be incomplete or erroneous. When making decisions in the resuscitation arena, many factors must be considered, including potential benefits of resuscitation (restoring life to the patient, a sense of closure and resolution of guilt for the survivors) and potential risks (financial and resource investments, resuscitation to a suboptimal quality of life, etc).

It is estimated that 250 000–500 000 patients experience sudden cardiac death annually in the USA.^{6,7} Medicare expenditures of \$58 million are estimated to result from unsuccessful resuscitations annually in the USA.⁸ Resuscitation is by nature an invasive, high cost, and labour intensive endeavour, and in most clinical settings, carries a very low likelihood of success. Traditionally, most emergency physicians attempt CPR for patients who present with cardiac arrest, unless a legal advance directive is available.^{9,10} As so few patients have completed legal advance directives, and only a fraction of those have the document readily available, the default option for many physicians is to attempt resuscitation. Most states (42 states, as of 1999) currently have statewide out of hospital DNR protocols in place.¹¹

Reported survival rates for patients with cardiac arrest vary by report, dependent on a number of factors, including time elapsed since arrest (down time),^{12,13} presenting rhythm,¹⁴ early defibrillation,^{15,16} cardiac activity on bedside echocardiogram,¹⁷ underlying medical condition, response to prehospital ALS protocols,^{18,19}

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age, and long term care. In summary, published reports have estimated survival for victims of cardiac arrest to hospital discharge between 0% and 16%.²⁰⁻²² Certain groups of patients have survival rates approaching 0%, such as residents of long term care facilities with unwitnessed arrests. Despite this comparatively low success rate, current American Heart Association Guidelines, as well as many hospital policies suggest or mandate resuscitation for all patients except those with prior do not attempt resuscitation orders, clear signs of death such as rigor mortis or dependent lividity, or if no physiological benefit can be expected after maximal therapy.²³ Many emergency physicians attempt resuscitation for patients in cardiac arrest, in situations considered non-beneficial, often because of fears of litigation or criticism.⁵

IMPROVING PUBLIC EDUCATION REGARDING RESUSCITATION

Despite numerous scientific advances in information about treatment modalities and outcomes available to physicians, the knowledge of the general public regarding resuscitation is woefully inadequate and inaccurate. Numerous studies have found inaccurate beliefs regarding CPR and the expected outcomes among the general public. Many laypersons erroneously believe that the success rate of cardiopulmonary resuscitation is between 40% and 60%.²⁴⁻²⁶ It has been suggested that inaccurate knowledge may be perpetuated by unrealistic portrayals of successful resuscitations in the media.^{27 28}

Improving education of the general public is essential to improvement in the ability of health care providers to communicate on end of life preferences regarding medical care. It has previously been shown that accurate knowledge regarding probability of survival influences patient preferences.^{29 30} A recent prospective interventional study showed that education of the general public using an innovative educational video can be effective in improving knowledge about resuscitation, and affecting personal preferences regarding resuscitation.³¹ Although currently most public education is dependent on individual physician-patient communications, future directions may lead to increased uniform education of the general public through the media, publications, or other venues.

Training in CPR by the general public is another area of potential improvement in public education. Because bystander CPR is an important predictor of outcome, improved levels of public training may be an important component of rapid institution of medical care and improved outcomes. Recent data suggest that certain populations are more likely to have previous training in CPR,³² suggesting potential target populations for education in CPR.

ADVANCE DIRECTIVES

Advance directive is a general term that includes any proactive document stating the patient's wishes, should they be unable to state their own wishes in the future. The living will, which was adopted by many states in 1990, is a document used by some terminally ill people. Many living wills stipulate that no life sustaining treatment be used in cases where meaningful recovery is unlikely. The durable power of attorney document designates a surrogate decision maker in the event the patient is no longer able to make medical decisions. In 1991, the Federal Patient Self-Determination Act mandated that all patients admitted to hospitals in the USA have the opportunity to sign an advance directive. Most states have specific advance directives designated by state legislation (at least 38 states). The most important argument in favour of widespread use of advance directives is their potential to facilitate the implementation of the patient's individual wishes.

There are several important barriers to the universal utilisation of advance directives for victims of cardiac arrest. In recent years, there has been widespread advocacy and some legal mandates supporting the increased use of advance directives; however, only a minority of patients have completed one,^{33 34} and an even smaller minority present to the emergency department with the necessary documentation. Even in cases where advance directives are completed and available, there can be significant disagreement among physicians regarding which specific procedures are appropriate for individual patients. Even in today's environment, where many recommend a change in policy away from standing orders for resuscitation, many social and institutional policies still suggest resuscitation attempts for most patients. Recognition of this gap in public policy underscores the need for greater utilisation of advance directives.

Studies conducted in various settings have demonstrated variable compliance with advance directives by medical personnel.^{35 36} In contrast, recent studies have shown that emergency medical personnel comply with advance directives more often than previously believed. According to one survey, most emergency physicians (78%) withhold resuscitation attempts for patients with a legal advance directive, indicating a willingness to honour patients' wishes regarding their own medical care.⁹ Additionally, most prehospital providers (89%) state that they withhold resuscitation attempts for patients with a legal advance directive.³⁷ These results suggest that advance directives may be especially helpful in medical decision making to emergency health care providers.

Despite the apparent lack of utilisation of advance directives, many people have strong personal preferences regarding CPR.³⁸ Such preferences regarding resuscitation attempts vary widely, and are dependent on a variety of factors, including age, state of health, and clinical setting.^{39 40} Recent reports suggest that full resuscitative efforts are not necessarily desired by most patients, and that trends toward societal consensus can be identified, at least in some hypothetical resuscitation scenarios.^{41 42}

"FUTILITY": HOW DO PHYSICIANS DETERMINE IT?

The term futility, although commonly used, has fallen out of favour among many authors, as the use of the term is fraught by inconsistencies in definition and interpretation. In the past, some authors have proposed a variety of different standards, for both the quantitative and qualitative aspects of futility. Some definitions address "quantitative futility", the likelihood of benefit to the patient falls below a minimal threshold, and a "patient centred" definition, such as failure to produce effects which the patient desires.^{43 44} Health care professionals have variable interpretations of the term futile as applied to medical interventions. For example, some may believe futile to refer to interventions that carry an absolute impossibility of successful outcome, a low likelihood of success, a low likelihood of survival to discharge from the hospital, a low likelihood of restoration of meaningful quality of life, or perhaps still other interpretations. Several authors have shown that there is no consistent consensus among physicians about the definition of futility.⁴⁵ Because of the continuing controversy over the meaning of the term futility, it may be preferable to avoid it and to refer instead to interventions as medically "non-beneficial", "ineffectual", or "low likelihood of success".

STEWARDSHIP OF RESOURCES

The appropriate allocation and stewardship of resources is an important consideration when making decisions regarding invasive, costly, or lengthy procedures. Typically, a single attempted CPR in the emergency department costs thousands of dollars, and monopolises the time and efforts of several

health care professionals. Some authors suggest that both medical and economic factors be considered when making decisions regarding life sustaining therapy. Several authors have suggested that CPR should not be considered a part of the standard of care for certain patients with expected poor outcomes.

While we do not condone withholding of medical care because of financial issues, it may be appropriate in some circumstances to consider the overall costs and potential benefits to the individual patient, family, and society.

SOLUTIONS TO ETHICAL DILEMMAS INVOLVING NON-BENEFICIAL INTERVENTIONS (FUTILITY)

Perceived dilemmas regarding nonbeneficial interventions are often attributable to inadequate or ineffective communication between physician, patient, and family. Emergency physicians and their patients are at risk of such communication inadequacies or errors, as previous relationships with patients and family rarely exist, and time is often inadequate to establish effective relationships. Thus, when a difference of opinion exists about the appropriate course to take, initial efforts should be directed at improved communication, education, and joint decision making.

Many authors and experts agree that physicians are not under any obligation to render treatments that they deem of little or no benefit to the patient. There have been numerous ethical opinions supportive of the position of offering only those treatments believed to produce medical benefit. The AMA Council on Ethical and Judicial Affairs wrote that CPR may be withheld, even if requested by the patient, "when efforts to resuscitate a patient are judged by the treating physician to be futile."⁴⁶ In addition, several national policies may provide guidance in decision making regarding non-beneficial interventions. The American College of Emergency Physicians (ACEP) issued a policy statement that states that "physicians are under no ethical obligation to render treatments that they judge have no realistic likelihood of medical benefit to the patient." The policy also states that emergency physicians' judgments should be unbiased, based on available scientific evidence and societal and professional standards, and sensitive to differences of opinion regarding the value of medical intervention in various situations.⁴⁷

Important decisions regarding interventions and treatments, and decisions to provide, limit, or withhold interventions should be made by the emergency physician by considering well established research results, patient and family wishes, and using professional judgment about the likelihood of benefit to the patient.⁴⁸ Individual opinions regarding quality of life should be avoided. Importantly, when certain interventions or therapies are withheld, it is even more important that the physician does not withdraw care, but maintains an increased level of compassion, communication, delivery of information, counselling, and coordination of other services that may be helpful to the patient and family. Maintaining an active role in these aspects of care of the patient and loved ones may, in many cases, be of greater value than technological interventions.

PROCEDURES ON RECENTLY DECEASED PATIENTS (THE NEWLY DEAD)

The practice of teaching and performing procedures on recently deceased patients (the newly dead) for educational purposes is controversial. The most important stated benefit of this practice is the recognised need for hands-on procedural education for students and housestaff, as well as experienced physicians.⁴⁹ The setting of the recently deceased patient provides a unique clinical setting in which there is literally no risk to the patient. As a result, these trained physicians are better able to competently perform these

procedures on future, living patients, resulting in an overall benefit to society. However, traditionally, informed consent has been rarely obtained. Some consider performing such procedures without informed consent to be disrespectful, deceptive, or unethical.⁵⁰ Several recent studies have shown that most people believe that consent from family members before practising procedures on the newly dead is appropriate.⁵¹ Several studies have shown that obtaining consent for postmortem procedures from family members is indeed feasible.⁵² However, in another recent study, only a minority of families consented to a postmortem procedure.⁵²⁻⁵³ The AMA recently instituted a policy regarding procedures on recently deceased patients, that consent should be obtained from surrogates.⁵⁵ The Society for Academic Emergency Medicine recently published a position statement stating that permission should be obtained from the family before performing procedures on newly deceased patients.⁵⁶

FAMILY PRESENCE DURING RESUSCITATIVE EFFORTS AND PROCEDURES

Traditionally, family members have not been allowed to witness resuscitation attempts. However, several recent reports have shown positive results of allowing family to be present during resuscitative efforts.⁵⁷ Family presence may serve several functions, including reducing guilt or disappointment, giving time to accept the bad news, and may be a helpful part of the grieving process. Despite concerns of physicians that family members may be traumatised by witnessing such procedures, or may interfere with medical care, data do not support such concerns.⁵⁸ When family members are allowed to be present, a chaperone or communication liaison is recommended, to assist with communication and education about procedures and other medical issues.

PHYSICIAN ASSISTED SUICIDE AND EUTHANASIA

Currently physician assisted suicide is legal in only one state in the USA, Oregon, since The Death with Dignity Act was passed, which allows physicians in Oregon to prescribe lethal medications to terminally ill patients in certain circumstances.⁵⁹ Active euthanasia is prohibited in the USA and many other countries. Although some believe physician assisted suicide and euthanasia to be appropriate and compassionate for patients with terminal illnesses, physicians must uphold the law in such circumstances. Even if permitted by law, the limited relationship with patients and emergency physicians make it inappropriate for emergency physicians to be actively involved in physician assisted suicide or euthanasia. However, emergency physicians may at times encounter patients with complications related to physician assisted suicide, or may treat patients who are contemplating physician assisted suicide. Aggressive management of symptom control and appropriate communication with patient and family may better serve the patient's treatment goals than the consideration of physician assisted suicide.

THE PHYSICIAN'S ROLE AT THE END OF LIFE: WHAT'S A DOCTOR TO DO?

The role of the physician at the end of a patient's life is complex and multifaceted. The primary goal of physicians is traditionally accepted as that of preserving or restoring life to the patient. Because of this traditionally accepted goal, sometimes physicians face significant difficulties accepting death as a natural process.

"There is a profound, unconscious, emotional rejection of death. Inasmuch as medicine is assumed to be curative, a

patient's death brings to the physician a deep and unacceptable feeling of defeat.⁶⁰

However, in many cases, death is not necessarily unwellcome by the patient and family, and should be accepted as a natural part of life, by the patient, loved ones, and health care providers.⁶¹⁻⁶² In cases where curative therapies are not possible, or are no longer effective, the role of the physician may actually be more complex, as less tangible and technical interventions and actions attain greater significance. The physician should address the many non-medical challenges facing patients and loved ones at the end of life, including numerous physical, emotional, social, cultural, and spiritual challenges.⁶³⁻⁶⁴ Comfort care should always be provided for patients, and should include pain management, and management of other symptoms, such as shortness of breath, nausea, fatigue, depression, or other symptoms.

PALLIATIVE CARE IN EMERGENCY MEDICINE

Over the past century, technology has advanced remarkably, including the development of improved diagnostic modalities, therapeutic procedures, new pharmacological agents, public health measures, surgical techniques, and life support technology. As the technological armamentarium has expanded, many more life prolonging options are available to the physician. As a result, in some ways, it may be easier to prolong life indiscriminately, without the necessity of weighing risks and benefits to the patient of various interventions.

Typically, the emergency department is probably not the ideal location for optimal end of life care. Numerous barriers exist that preclude the best possible experience for families and patients, including lack of privacy, uncomfortable settings, chaotic environment, noise levels, and the unfamiliar environment. Ideally, patients near the end of life would have adequate advance planning with the primary care physician to plan for end of life issues, including advance directives, family education about expected events, and planning for a peaceful death in the environment desired by the patient, often in the home or hospice. However, patients with terminal conditions often are transported to emergency departments for symptom management, or perhaps, because of lack of education about other alternatives. Emergency physicians should be competent in the evaluation and management of symptoms at the end of life, including pain, anxiety, nausea, anorexia, weakness, fatigue, depression, delirium, and dyspnea.⁶⁵⁻⁶⁷ Additionally, emergency physicians should develop a rational and thorough multidisciplinary approach to care at the end of life, including communication skills, social, religious, spiritual, cultural, and emotional issues and preferences.

COMMUNICATION: WHAT SHOULD I SAY?

Effective, compassionate communication with patients and loved ones is an essential component of end of life care in the emergency department. Understanding the patient's goals and expectations of medical treatment can improve the provision of the best care. For example, while some patients wish to prolong life as long as possible, others value dignity and pain relief, even at the expense of a potentially shortened lifespan. Privacy and adequate time together are essential to effective communication about life values and significant decisions. Accurate information is considered useful to patients in developing realistic goals and expectations, even if difficult to hear.⁶⁸ Effective communication techniques may include spending adequate time, communicating in a private, quiet location, using active listening techniques, using appropriate and understandable language, discussing a variety of options, and the use of ancillary support resources,

such as nursing, pastoral care, social services, etc.⁶⁹ Bereavement programmes using multidisciplinary support services can be beneficial to families of patients who die in emergency departments.⁷⁰ Other specific actions may be helpful to grieving families, including unrestricted visits, information from the hospital staff, viewing the deceased, written information, individual customs, and religious procedures; offering sedation to grieving family members was perceived as unhelpful.⁷¹⁻⁷²

CONCLUSIONS

There are numerous clinical and ethical issues and dilemmas that involve resuscitation. Basic principles of bioethics can be valuable in assessing and concluding ethical dilemmas. Education of patients regarding end of life issues, including resuscitation and advance directives, are crucial to improving physicians' abilities to comply with individual patients' wishes. Communication with patients and families is an essential skill that should be taught in medical education and practised with competence throughout the career of the emergency physician.

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