"Futile Care"—An Emergency Medicine Approach: Ethical and Legal Considerations

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Futility often serves as a proposed reason for withholding or withdrawing medical treatment, even in the face of patient and family requests. Although there is substantial literature describing the meaning and use of futility, little of it is specific to emergency medicine. Furthermore, the literature does not provide a widely accepted definition of futility, and thus is difficult if not impossible to apply. Some argue that even a clear concept of futility would be inappropriate to use. This article will review the origins of and meanings suggested for futility, specific challenges such cases create in the emergency department (ED), and the relevant legal background. It will then propose an approach to cases of perceived futility that is applicable in the ED and does not rely on unilateral decisions to withhold treatment, but rather on avoiding and resolving the conflicts that lead to physicians' believing that patients are asking them to provide "futile" care. [Ann Emerg Med. 2017;70:707-713.]

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CASES

Nancy, a 56-year-old woman with metastatic ovarian cancer, has presented to the emergency department (ED) 4 times in the last month in respiratory distress from recurrent pleural effusions, despite pleurodesis. She and her husband are struggling with the decision regarding her entering hospice care.

Ralph, a 78-year-old man with advanced dementia, presents with respiratory distress from pneumonia. Ralph cannot care for himself and has been in a nursing home for a year. He sleeps most of the day and does not speak, recognize family, or generally seem aware of his surroundings. The emergency physician contacts his daughter, who wants "everything" done for her father. Ralph requires intubation and becomes hypotensive, requiring fluids, pressors, and antibiotics for septic shock. After 3 hours of aggressive treatment in the ED, Ralph is transferred to the ICU.

Luis is a 72-year-old man with advanced pancreatic cancer. Paramedics found him at home with severe hypotension suspected to be a result of sepsis, Luis having had a fever that morning according to his caretaker. Emergency medical services (EMS) administered fluids and pressors without response, and just before arriving at the ED Luis became asystolic. EMS began cardiopulmonary resuscitation (CPR).

INTRODUCTION

Each of these scenarios presents a case in which an emergency physician may wonder whether the treatment the patient is receiving is futile and should therefore not have been offered. Is it futile to attempt, and therefore appropriate to withhold, drainage of a constantly recurring pleural effusion, intubation of a patient who likely will never be extubated and has minimal awareness even at baseline, or CPR on a patient with advanced cancer in asystole? For more than 35 years, the concept of futility has held a substantial place in medical ethics[1] and has even entered into clinical decisionmaking.[2] Still, there is little clarity about what futility means or what its implications are. This lack of clarity can result in frustration among physicians who believe that they should not need to provide futile treatment, but are not sure what constitutes such treatment.

In this article, we will review the concept of futility and explore its relevance to the practice of emergency medicine. In particular, we will discuss the need for our own specialty-specific approach to the matter, as well as the relevant legal considerations when withholding treatment is contemplated.

FUTILITY: WHENCE AND WHAT

Futility considerations appear to have entered clinical decisionmaking in response to the rise of patient autonomy as a guiding principle in clinical decisions. Respect for autonomy appeared to imply that if a patient requested a therapy, physicians should provide it, no matter how

useless. This struck many as inappropriate, and even an abdication of professional responsibility. Authors introduced "futility" to identify a class of therapies that physicians could withhold regardless of patient and family wishes.[3] Others objected to introducing the concept of futility, seeing it as a means of allowing physicians to covertly assert their own values and obtain the authority to unilaterally make decisions that properly belong to patients or their surrogates.[4,5] Despite these concerns, futility has entered the conversation both in print and at the bedside.

But what is futility and might one decide whether a therapy is futile? The dictionary defines "futile" as "incapable of producing any result; ineffective, useless."[6] In accordance with the Greek myth of the daughters of Danaus, who were condemned in the underworld to fill a bath with leaky vessels,[7] and which is often cited in this context,[8,9] we can take carrying water with leaky vessels as the prototype of futility. But how does this prototype map onto medicine? We do not attempt to infuse fluids through leaky lines, or anything else in which our labor accomplishes literally nothing. Perhaps the case of transfusing the bleeding patient may seem similar, but there is a difference between trying to fill a tub with a leaking bucket and endlessly repeating the same task to keep a leaky tub full. In the latter case, you can still bathe.

Because of this disconnect between the simplest meaning of the word and the medical context, many have attempted to provide a definition of medical futility. One early and influential attempt by Schneiderman et al[3] distinguished 2 different types of futility, quantitative and qualitative. Quantitative futility applies to "any effort to achieve a result that is possible but that reasoning or experience suggests is highly improbable and cannot be systematically produced," with a cutoff of 1% likelihood of working suggested.[3] Qualitative futility applies to "any treatment that merely preserves permanent unconsciousness or that fails to end total dependence on intensive medical care."[3]

Brody and Halevy[10] proposed 4 other types of futility. *Physiologic futility* refers to treatments that simply cannot bring about the intended physiologic effect, eg, defibrillation for asystole. *Imminent demise futility* refers to treatments that may have the desired effect, but will not prolong the life of a dying patient. *Lethal condition futility* applies to cases in which the patient will soon die of an underlying condition, regardless of the treatment's effect. Finally, *qualitative futility* refers to cases in which the treatment, even if successful, will not lead to an acceptable quality of life, such as performing CPR on a patient in a persistent vegetative state.

A further approach to futility is to see it not as a unique class of treatments but rather as "simply the end of a spectrum of low-efficacy therapies."[11] Others, however, explicitly separate futility from low efficacy.[8,12]

This profusion of incommensurate accounts has led many to question whether we can fruitfully apply futility to so important a matter as unilaterally withholding or withdrawing treatment.[13,14] Rather than focusing on the extent of the physician's authority to withhold treatment, these authors suggest that we view these as situations in which providers and patients or surrogates disagree on which therapies to use, and that we emphasize creating consensus between the patient or surrogates and the medical team.

This "postfutility" approach is closest to the approach this article will adopt. However, the concept of futility, although vague, undergirds the questions that clinicians ask about withdrawing and withholding treatment. Thus, although futility may not be the best framework for discussing the solution to this issue, we believe it is best for framing the problem and therefore the next several sections of this article. For this purpose, however, it is not necessary to choose a particular definition of futility, as it is the perception that futility may apply, rather than its formal application, that is relevant.

FUTILITY IN THE ED

Emergency physicians may perceive questions of futility in a range of cases. Many involve cardiac resuscitation. Every emergency physician is familiar with resuscitations that continue even though the likelihood of return of spontaneous circulation is extremely low. In other cases, the intervention itself is of questionable value. For example, aggressive measures such as thoracotomy may not help cardiac arrest as a result of blunt trauma, although it may seem to some obligatory nonetheless.[15] Likewise, CPR may have little utility in advanced cancer patients who experience inhospital arrest,[16] yet physicians frequently attempt such resuscitations if there is no do-not-resuscitate order. Finally, in some cases, the resuscitation may "work," but appear worthless. A "successful" resuscitation after an extended downtime before return of spontaneous circulation is likely to result in a poor neurologic outcome.[17] This is particularly relevant in pediatrics, in which the younger the patient, the longer the resuscitation is likely to continue. Physicians will resuscitate a pediatric patient with submersion injury or out-of-hospital cardiac arrest longer than an adult[18] even though prolonged resuscitation correlates with poor neurologic outcome.[19]

Questions of futility may also arise from therapies that appear to be "bridges to nowhere" in critically ill patients. Is

intubating a patient who is herniating from intracranial hemorrhage and is not a candidate for decompressive surgery reasonable? What about intubating an elderly patient with chronic obstructive pulmonary disease and pneumonia who has expressed a wish not to receive prolonged ventilation?

Cases in which patients strongly desire diagnostic tests that are not indicated can also raise futility concerns. Computed tomography (CT) for mild intermittent headache, magnetic resonance imaging for simple low back pain, or a chest radiograph for benign cough may all appear futile and, if radiation is involved, even harmful.

Finally, treatment of chronically ill patients may raise these concerns. Prolonged resuscitation of a severely demented patient in septic shock may appear futile, even if he or she may survive the acute episode. Even admission for the third case of aspiration pneumonia in 3 months may appear futile. Finally, repeating the same procedure over and over, with no foreseeable end, as in Nancy's case, may seem to some to be the essence of futility.

WHY EMERGENCY MEDICINE NEEDS ITS OWN APPROACH

Although there is substantial literature on futility, little focuses specifically on emergency medicine.[9,20,21] However, emergency physicians cannot simply rely on the analyses of other specialties in approaching such cases. The ED is unique for several relevant reasons[22] and therefore merits an emergency medicine–specific approach.

First, the ED provides extreme challenges to communication, which, as we shall see, is vital to approaching these cases. In the ED, there is not time to develop the strong patient-physician relationship that exists in continuum-of-care settings such as outpatient clinics or prolonged hospitalizations. Furthermore, again in contrast to other settings, there is little time to explore patient goals and directives, or to gather individuals who are not present but might help make decisions and mediate disagreement, such as family, friends, and clergy. Finally, even when these factors are not relevant, emergency physicians often need to make decisions urgently, without the time for discussion that might otherwise resolve the matter.

Second, decisions emergency physicians make about initiating treatment can determine patient trajectories of care and disposition beyond the ED. Performing CPR, establishing a definitive airway, and initiating vasopressors for hemodynamic support ensure ICU admission and likely additional aggressive, invasive therapies. This is particularly relevant if the patient later transitions to comfort care. Even if there may be no ethical distinction between withholding and withdrawing treatment, it is emotionally more difficult for families to withdraw treatment already started than to withhold it in the first place. Conversely, if an emergency physician does not start the aforementioned therapies, the patient and family may feel they were not given enough opportunity to understand the situation and experience guilt for "giving up too soon."

The ED team can also determine patient trajectories in situations other than cardiopulmonary arrest. For example, an emergency physician can choose whether or not to order a chest radiograph to look for pneumonia in a woman with advanced-stage cancer with fever and cough who is unlikely to survive a bout of pneumonia and whose goals of care would not be met by an inpatient attempt to treat pneumonia. Although one should likely not admit such a patient even with a positive radiograph result, once one has diagnosed pneumonia it may be difficult to discharge the patient, even given her goals of care. Thus, ordering a radiograph can lead to an admission that would best not occur.

Third, emergency physicians provide medical command to EMS personnel, uniquely extending ethical considerations of futility outside of the physical space of the hospital. In many instances, EMS will call on the emergency physician to provide guidance about whether to initiate or continue out-of-hospital resuscitative efforts. These situations require emergency physicians to assist in decisionmaking, possibly without access to the patients or their proxy decisionmakers.

LEGAL ASPECTS

There are numerous legal considerations relevant to cases of perceived futility in the ED. One is setting the standard of care. For a malpractice suit to succeed, the plaintiff must show that the physician owed a duty of care to the patient; the physician breached that duty (in most cases by failing to provide the standard of care); this resulted in harm to the plaintiff, resulting in compensable damages; and the physician was the proximate cause of that harm.[23] In general, if a physician adhered to the emergency medicine standard of care in determining that a certain treatment was medically inappropriate, the plaintiff will not be able to prove that element of the cause of malpractice, and the emergency physician would not be liable.[24] The standard of care in emergency medicine is generally what the reasonable or prudent emergency physician would do under the circumstances. Emergency physicians should make careful determinations of the efficacy of interventions. Otherwise, there is a risk that the practice of emergency physicians to routinely offer inappropriate medical treatments because the patient or family request it could become the standard of care. In a malpractice proceeding, practice guidelines and policies by

organizations can be admitted into evidence as indicative of the standard of care, with supporting expert testimony. The American College of Emergency Physicians "Non-Beneficial ('Futile') Emergency Medical Interventions Policy" may support the standard of care in making determinations about effectiveness or ineffectiveness of particular treatments. This policy states that "[p]hysicians are under no ethical obligation to render treatments that they judge have no realistic likelihood of medical benefit to the patient," and supports making these judgments "based on available scientific evidence, and societal and professional standards."[25]

Other legal considerations include state laws. In some states, legislation supports a physician's judgment in deciding to withhold treatment. Texas has a specific statute that protects physicians who decide to withhold treatments according to due process requirements. These requirements include review by an ethics committee and the ability to appeal to a court.[26] However, these procedures are not of practical relevance to emergency medicine, with its need for rapid decisionmaking. Some states also restrict by statute or case law the process by which physicians may make decisions concerning withholding or withdrawal of life-sustaining medical treatment. For instance, in New York, a statute precludes withholding or withdrawing life-sustaining treatment if the surrogate directs otherwise, until a transfer or judicial review, although the statute does not address a determination of ineffectiveness based on objective criteria.[27]

Cases litigating treatments withheld or withdrawn against patient or family wishes rarely succeed when the issue is standard of care. There have been occasional cases of patients dependent on life-sustaining treatment, such as ventilation or artificial nutrition and hydration, who were not actively dying, in which family, by insisting that physicians continue treatment, have prevented physicians from withdrawing treatments they had instituted.[28]

Any determination of legal action for damages for death from medical malpractice depends on a retrospective determination of likelihood of success and life expectancy. Although claims for medical malpractice for withdrawal or withholding of inappropriate medical treatment typically do not succeed, families have been more successful alleging "intentional infliction of emotional distress."[29] The elements of this tort are that the defendant must act intentionally or recklessly, the defendant's conduct must be extreme and outrageous, and the conduct must be the cause of severe emotional distress.[30] These cases have been more likely to succeed when the physician withheld or withdrew the medical treatment in an especially deceptive and insensitive manner.[29]

AN EMERGENCY MEDICINE APPROACH TO FUTILITY

How then should emergency physicians approach situations in which the patient or surrogate asks them to provide what they consider futile care, or are concerned the issue may arise? The first step should not be any consideration of futility or withholding treatment, but simply building rapport and trust. This is important with all patients, but especially when conflict may arise. We noted some of the difficulties in developing such a relationship in the ED above. Nonetheless, there are techniques that can help. Measures as simple as sitting down when talking to a patient, attending to small matters of comfort such as bringing a blanket personally, and making sure to speak in a jargon-free manner can help create trust.[31]

Sometimes, however, despite everyone's best efforts, an emergency physician may arrive at a situation in which he or she believes the patient expects care that is futile and that ought not to be provided. When this happens, one must distinguish between decisions that are urgent and those in which one has time to deliberate further.

When there is time, there is no substitute for communication. Do the patient and family understand your concerns? Often, disagreements are not fundamental, but the result of a failure to understand one another. Thus, in Ralph's case, in which one has time to talk to the daughter, does the daughter understand that Ralph is unlikely to survive his hospitalization even if he is intubated, and that if he does survive, he may well remain intubated and not return to his baseline? The daughter may want "everything" done because she believes he will return to the way he was, but not wish to leave him with a worse quality of life than he already has. Her motive for wanting everything done may, however, be to give the family time to gather at the bedside. In that case, the request would be entirely reasonable, and understanding the daughter's reasons may allow the emergency physician to see the resuscitation as appropriate.

Another approach that might help, and is important regardless, is to ask the daughter whether she is aware of any advance directives, such as a living will her father may have completed, or a Physician Orders for Life-Sustaining Treatment (POLST)/Medical Orders for Life-Sustaining Treatment (MOLST) form or out-of-hospital do-not-resuscitate order that her father's physician may have requested according to his wishes. These documents may help the daughter and emergency physician better understand what they may and should do for the patient, and what he would have wanted.

When disagreement persists despite clear communication, a next step is to consider bringing in trusted outsiders who can help mediate. Other family, friends, clergy, and primary physicians, as well as perhaps clinical ethics consultants, who may be less emotionally involved in the case or at any rate have a different perspective, may be able to help bring about consensus. Also, if the emergency physician consults individuals with relevant clinical expertise, such as the primary physician, the patient and family will see that the emergency physician is taking the patient's predicament seriously and calling on all those who can help. The consultant may even be able to explain why the patient should receive the disputed therapy.

Sometimes, however, the patient and physician cannot reach consensus, and the emergency physician must decide whether to continue treatment. In a case like Ralph's, even if the physician believes that resuscitation is futile, it should continue. Physicians determine what effect a treatment is likely to have. It is not for them to determine what outcomes are meaningful. Meaning is inherently subjective and ultimately hinges on the patient's goals and values. The patient or surrogate, not the physician, is the expert here. Survival in a persistent vegetative state, or survival for a few more days in an ICU, may be of great value to a patient, and treatment that will allow this cannot simply be called futile and withheld.[32] This approach is also relevant in the case discussed earlier of the advanced-stage cancer patient with fever and cough, and therefore possibly pneumonia, in which a physician is concerned about initiating an undesirable cascade of care. Whether to avoid it is a decision properly left to the patient or surrogate. Even in cases in which the patient's or family's goals and values seem unreasonable, one should not unilaterally ignore them. Such cases will require further evaluation, likely by an ethics consultation.

Nancy's case provides an opportunity for different types of conversations. One reason the repeated ED drainage may seem futile is that it would appear that Nancy should have an indwelling pleural catheter placed, obviating the need for repeated drainage. Before any conversations about this, however, the physician should make Nancy comfortable by performing the thoracentesis. She is in respiratory distress, and there is no pressing reason to draw a line before *this* procedure. Once she is comfortable, Nancy will be more able to participate in conversation about hopes and fears around receiving a drainage catheter. One could also further discuss hospice care with Nancy and her husband. Finally, one could advise Nancy to consider whether she wants to have her physician enter a do-not-resuscitate order and whether there are any other advance directives she wants to document or discuss with her husband. These discussions would allow one to both treat the immediate problem with a procedure the emergency physician perceived as futile and still help to prevent its recurrent use. However, it is not appropriate to consider repeated thoracentesis futile regardless of the outcome of the later conversation. Perhaps the easiest way to see this is to consider dialysis. There, too, a procedure helps only briefly, but we repeat it regularly without hesitation.

In an emergency, with no time to talk, or in cases in which there is no one to talk to, one must rely on principles and judgment. There are some instances when the American College of Emergency Physicians' policy that "[p]hysicians are under no ethical obligation to render treatments that they judge have no realistic likelihood of medical benefit to the patient"[25] provides a frame of reference, and physicians may reasonably withhold a treatment or study. Thus, in a case like Luis's, in which there is no expectation at all that CPR will revive the patient, there is no obligation to perform or continue CPR. It is futile in the strictest sense of accomplishing nothing. In terms that we introduced earlier, in cases that fall under the Brody and Halevy[10] categories physiologic and imminent demise futility, the treatment may be withheld, because it will not change the patient's course at all. When EMS requests out-of-hospital guidance, this guideline, along with an understanding of when out-of-hospital CPR is not beneficial,[33-35] allows an emergency physician to decide whether to authorize termination of resuscitation.

A similar approach applies to unindicated treatments and tests, such as antibiotics for viral disease. Even when patients demand such treatment, a physician is under no obligation to provide it. Certainly, some cases of ineffective treatments that some might label futile belong under the heading of rationing, as, perhaps, mammograms for certain age groups. However, treatments and tests for which there is specialty-wide consensus that there is no indication in a given context can be withheld in that context without concern. Physicians should exercise professional judgment, and not merely provide whatever the patient requests.[25] Note that unindicated interventions may not be futile in the sense discussed in the last paragraph. A head CT in a patient with benign headache will have the desired effect because there will be images of the patient's brain. However, given the consensus that head CT is not an appropriate part of the evaluation of these headaches, a CT need not be obtained in such a case, even if the patient requests it.

Whenever one withholds requested treatment, whether CPR or unnecessary antibiotics, it is essential to clearly

explain one's reasoning to the patient or family. At the least, this will help reset their expectations. At best, it can help alleviate the anxiety, and even anger, that seemingly not everything possible was tried to save a loved one. The family may not understand that in this case, something would *not* have been better than nothing.

When physicians do unilaterally withhold or withdraw treatment, it is also important to acknowledge the distress *they* may experience both in feeling unable to "help" a patient and in perceiving a misalignment of physician and patient or family goals. Because physicians and patients usually agree on the direction of care, when this alliance is viewed as compromised, physicians may find themselves at risk for compassion fatigue and burnout.

Finally, elsewhere in the hospital some individuals may invoke futility to unilaterally withhold treatment when the treatments "prolong the dying process" rather than preserving life. For example, an ICU patient who will clearly die within the next day regardless of interventions will generally not receive hemofiltration, additional antibiotics, or new pressors, even if these might defer death.[36] This distinction between prolonging life and prolonging dying, however, is of limited use in the ED. First, in the ED we do not generally have such a clear sense of a patient's prognosis. Second, even for patients who are clearly dying, prolonging this process may be beneficial in the beginning of the process, that is, in the ED. Perhaps after some time in the ICU, when the patient and his or her loved ones have had time to adjust, it may be acceptable for physicians to say no more can be done, even when they could add a few hours. However, in the ED, when a patient has just arrived in the hospital, even a few more minutes or hours of dying may be valuable to the patient and family to allow everyone to say good-bye.

CONCLUSION

Emergency physicians daily encounter scenarios in which they may believe they are delivering futile care. Although futility is difficult to define, it is the perception of futility that creates significant distress. The fast-paced environment of the ED, in which time pressure magnifies any initial discordance between clinicians and patients or their surrogates, can magnify this distress. The ideal initial approach centers on communication to build understanding between all disagreeing parties. When unilaterally withholding treatment is appropriate, communication remains paramount to mitigate the emotional fallout for surrogates.

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