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## End-of-Life and Futile Medical Care in the Emergency Department

The purpose of this article is to review the complicated issues of end-of-life and futile medical care as applicable to the emergency department (ED). It will address sources of conflict and confusion, and will conclude with a practical discussion of how emergency physicians can best navigate these complex waters by practical case review.

### Clinical Vignette

*A 65-year-old male with depression presents via emergency medical services (EMS) after family called regarding an apparent suicide. The patient was found unresponsive at the scene with a single gunshot wound to the head. He had a pulse and agonal respirations, was intubated on the scene, and was rapidly transported to the ED. On arrival, blood pressure is 95/50, pulse is 100. On exam, his Glasgow Coma Scale (GCS) is 3 and pupils are fixed and dilated. Resuscitative measures are undertaken, he is rapidly transported to the CT scanner, and the neurosurgeon on call has been consulted. The charge nurse notifies you that the family has arrived and is in the consultation room.*

### Introduction

Medical care and technology have progressed to the point that life can be prolonged in many cases without meaningful hope for improvement or recovery. Futile medical care is a controversial topic and has been defined variously in the literature.<sup>2-4</sup> Simply stated, a futile action is one that provides no useful result. Futile medical care can then be thought of as medical interventions that attempt to prolong life without achieving an effect the patient can appreciate as benefit.<sup>5</sup>

The financial burden of futile care is high. A review of 1136 intensive care unit (ICU) patients over a three-month period determined through expert consensus opinion that 11% of care rendered was futile, at a cost of \$2.6 million.<sup>6</sup> Even if medical resources were unlimited, futile care can be harmful to other patients through the development of resistant infections and ineffective antibiotics.<sup>7</sup> More applicable to the ED, providing invasive futile care can direct limited resources away from other patients and can put providers at risk of bloodborne pathogen exposure. Further, futile resuscitative efforts in the field can expose emergency medical service providers and the lay public to the risk of ambulance crashes via excess lights and sirens travel.<sup>8</sup>

Care at the end of life is often provided in the ED. In 2007, national statistics estimated that 139,000 patients died in the ED, or 0.1% of all ED visits.<sup>9</sup> This can occur unexpectedly for patients with trauma and/or no known history of chronic disease, or can occur in patients with known life-limiting disease. Frequently, patients with known terminal conditions who have developed unexpected symptoms or high symptom burden may be transported to the ED for care.

Emergency physicians are often faced with patients presenting in extremis,

## Executive Summary

- Futile care is treatment with no realistic benefit as would be perceived by the patient.
- Palliative care is treatment that improves the patient's quality of life by addressing physical and psychological symptoms.
- Hospice care is comprehensive treatment provided to terminally ill patients, focusing on symptom management rather than disease cure.
- Advance directives appoint a legal health care representative and provide instructions for *future* life-sustaining treatments, but importantly, do not guide EMS personnel.
- Physician Orders for Life-Sustaining Treatment (POLST) provide medical orders for *current* treatment and, when available, guide actions by EMS personnel.

and medical interventions need to be performed rapidly and accurately. These interventions must be undertaken with the chance for meaningful survival, and should be aligned with an individual patient's desires. More often than not, these critically ill patients are incapacitated and unable to communicate their desires, discussions of preferences are not recorded in available medical records,<sup>10</sup> and families and surrogates are absent. The ED physician, thus, is tasked with making rapid diagnoses, providing lifesaving treatment, alleviating pain and suffering, and identifying and honoring patient preferences for end-of-life-care. This can be a challenge, to say the least.

To excel at providing end-of-life care, ED physicians should understand the principles of palliative care. Palliative care has been defined by the World Health Organization as: "An approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual."<sup>11</sup> Hospice care is a subset of palliative care, best described as a comprehensive system of care that focuses on the terminally ill, in which the emphasis is placed on symptom management rather than cure. Hospice care is appropriate when the expected life expectancy of the patient is six months or less. It is important for ED physicians to

understand the distinction between the two. Palliative care is applicable early and throughout the course of illness, in conjunction with therapies that are intended to prolong life, whereas hospice care is not. Hospice care emphasizes that death is a natural part of life and seeks neither to prolong nor hasten death.<sup>12</sup>

In a recent review, Quest et al described 12 palliative care skills that emergency physicians should excel at when dealing with end-of-life issues in the ED (*see Table 2*).<sup>11</sup>

Several medical organizations and societies have published consensus statements in regard to the avoidance of futile care.<sup>13-15</sup> The American College of Emergency Physicians statement on non-beneficial care ("futile care") is as follows :

- Physicians are under no ethical obligation to render treatments that they judge will have no realistic likelihood of medical benefit to the patient.
- Emergency physicians' judgments in these matters should be unbiased, and should be based on available scientific evidence and societal and professional standards.
- Decisions about providing or forgoing non-beneficial treatment are commonly made near the end of life. Emergency physicians regularly encounter patients in cardiac arrest who have no realistic likelihood of survival. In such circumstances, emergency physicians should consider withholding or discontinuing resuscitative efforts, in both the pre-hospital and hospital settings.
- When making decisions

regarding resuscitation, emergency physicians should be sensitive to differences of opinion among physicians, patients, and families regarding the value of medical intervention in various situations.

- Additional information that becomes available may necessitate alteration of previous clinical decisions.
- When emergency physicians decide to forgo non-beneficial treatments, especially in the dying patient, special efforts should be made to maintain communication and to provide comfort, support, and counseling for the patient, family, and friends.

An opinion statement from the American Medical Association is similar, stating that physicians are not ethically obligated to deliver care that, in their best professional judgment, will not have a reasonable chance of benefitting their patients.<sup>17</sup> Further, patients should not be given treatments simply because they demand them. Finally, denial of treatment should be justified by reliance on openly stated ethical principles and acceptable standards of care.

### Sources of Confusion in End-of-Life and Futile Medical Care

It is understandable that conventional media wants to present compelling medical success stories, but this can lead to misperceptions in the general public. For example, among laypersons, there is widespread misunderstanding about the

**Table 1: Definitions**

Term	Definition
ACP (Advanced Care Planning)	ACP is any planning a patient makes about end of life goals and care, including naming someone to make decisions if the patient is unable to do so. It includes naming specific goals and specific procedures or treatments to either accept or decline at the end of life.
Advance Directive	This is a legal document and varies from state to state. It specifies goals of care and specific treatments desired to be given or withheld if the patient is incapacitated.
Living Will	“Advance directive” is sometimes used interchangeably with “living will.” It is a document that names how a patient wants to be treated if he or she is dying or incapacitated.
DNR and DNAR	Do Not Resuscitate or Do Not Attempt Resuscitation (to make clear that attempts are not always successful), is the usual acronym used to indicate that the patient does not want advanced cardiac life support if his or her heart were to stop beating.
DNI	Do Not Intubate is the usual acronym used to indicate that the patient does not want intubation or mechanical ventilation if he or she were to develop respiratory distress or stop breathing on their own.
Comfort Care	This is the order given to treat and manage symptoms, but not aggressively treat disease processes or extend life.
POLST	Physician Orders for Life-Sustaining Treatment. A single piece of pink paper that a physician and, in some states, a patient signs indicating the patient's wishes. It is meant to be portable and available to all treatment personnel to describe the patient's wishes.
Durable Power of Attorney	A legal document specifying an individual who may make decisions on behalf of the principle (personal or business) that remains in effect if the principle becomes incapacitated.
Health Care Power of Attorney/Health Care Proxy/Surrogate Decision Maker	A person named by the patient, determined by relationship, or named by court order, who makes decisions related to health care on behalf of the patient if the patient is incapacitated.
Next of Kin	Closest relative and default surrogate when one hasn't been named. This is legally defined in the United States, starting with legal guardian, spouse, adult children, parent, adult siblings, etc.
Medical Decision-making Capacity	A person's ability to receive and express information pertinent to their medical care, and the ability to make choices consonant with that information and one's values. <sup>1</sup>

success of aggressive and invasive care in critical care units and the ED. A 1996 study looked at the portrayal of cardiopulmonary resuscitation (CPR) on popular television shows and found that on television, 77% of CPR efforts were initially successful at returning circulation and 67% of patients who received CPR survived to discharge.<sup>18</sup> Even among children, this overestimation is prevalent. In a study of school age children, the mean estimate of inpatient CPR survival was 58.9%; those who watched television programs depicting CPR had even higher estimates (62.4%).<sup>19</sup>

As opposed to those portrayed on television, actual survival statistics for patients undergoing CPR are grim. Two large studies found that among patients with in-hospital arrests, survival to discharge was 17%.<sup>20,21</sup> Another study found the rate of survival for out-of-hospital arrests was even worse: one-day survival for out-of-hospital arrests was 22%, and 30-day survival was 8%.<sup>22</sup>

In addition to television dramas, the news media can skew public perception of the successes of medical care in other ways. A study looking at the way news media reported on comatose patients found that patients described in the news were much younger than the average comatose patient, were more likely to have suffered from acute trauma, and were more likely to recover.<sup>23</sup> Finally, conventional news outlets frequently report on successful drug discoveries and research, but rarely give absolute and relative outcomes data, discuss cost, or describe potential side effects.<sup>24</sup>

These misperceptions are thought to be one of the main causes of conflict between patients, families, and providers in regard to expectations of care.<sup>25</sup> In a study of ethics consults in which care was ultimately determined to be futile, authors found that the major responsible party for futile care was the patient's family in 62% of cases, the treating physician in 37%, and a conservator in one case. More specifically, factors considered to be responsible for the motivation of this futile care

**Table 2:** Twelve Palliative Care Skills that Emergency Physicians Should Learn

- Assess illness trajectory
- Formulate prognosis
- Communicate bad news
- Plan advanced care
- Resuscitate the terminally ill with family members present
- Manage pain and non-pain symptoms
- Withdrawal and withholding of treatment
- Manage the imminently dying
- Manage hospice patients and Palliative Care Systems referrals
- Understand ethical and legal issues of end of life care
- Display spiritual and cultural competency
- Manage the dying child

were an unreasonable expectation of improvement in 58% of cases, fear of legal repercussions by the physician in 14% of cases, and patient desire in only 4% of cases.

Another potential source of conflict in regard to end-of-life and futile medical care is the lack of communication between providers and their patients before they become ill and incapacitated. Although recent research has noted positive trends in the elderly completing advance directives,<sup>26</sup> continued efforts are needed. Patients report higher satisfaction levels when their primary physician has had advanced care planning discussions with them. However, these visits are often time-consuming, with low reimbursement rates.<sup>27-29</sup>

Confusion can also occur between primary care physicians and specialists (e.g., oncologists, pulmonologists, and cardiologists) as to who should have these end-of-life discussions. A study of patients with cancer found that most patients expected their primary physician to offer supportive end-of-life care, whereas most primary physicians thought this should be performed by the oncologists.<sup>30</sup> Further, a study of patients with chronic obstructive pulmonary disease (COPD) reported that 67% of patients wanted to discuss end-of-life preferences with their pulmonologist, while only around 14% actually had.<sup>31</sup> Importantly, these discussions tended to occur around acute exacerbations and deteriorations of care, rather than in stable clinic settings.

Early communication, however, does seem to improve outcomes. A study looking at patients with metastatic non-small cell lung cancer found that those recruited to a palliative care arm were more likely to have documented end-of-life wishes, better quality of life, fewer admissions, and lived longer than the standard care arm, despite the fact that both arms were offered anti-neoplastic treatment.<sup>32</sup> Further, there does not seem to be an increase in the incidence of depression among patients and caregivers when end-of-life wishes are discussed.<sup>33</sup> When advance planning is in place, both the patient and the caregiver seem to experience a better quality of life. Overall, these patients are more likely to have their wishes followed, and this generally means less aggressive and invasive care near the end of life.<sup>34,35</sup>

Dialogue between providers and their patients is likely going to become more complex in the future as patients live longer and more advanced treatment options become available. A simple documentation of code status such as “DNR” (do not resuscitate) or “DNI” (do not intubate) will likely not suffice. Among heart failure patients, a minority have any type of advanced planning explicitly recorded, and even fewer patients with advanced cardiac devices (i.e., internal defibrillators) have their wishes specific to those devices recorded.<sup>36</sup> With these and other advanced devices, it can

be confusing to patients what their rights are with respect to discontinuation and withdrawal of care.<sup>37</sup> Complicating matters, there is some evidence that patients with DNR orders will get lower quality and less care. A study of patients with acute myocardial infarctions found that, compared with patients with no DNR order, patients who had such an order were less likely to receive effective cardiac medications.<sup>38</sup> Patients with DNR orders are also less likely to be admitted to medical intensive care units (MICUs).<sup>39</sup>

It is important for emergency physicians to understand that advanced care planning has been shown to be a dynamic process. Patients change their minds about their specific preferences for care over time. A study of dialysis patients indicated a significant variation over time in how closely they wanted their advance directives followed and how much leeway they would give to a surrogate.<sup>40</sup> In a survey of 100 patients who had made themselves DNR/DNI, a majority actually wanted intubation and/or CPR depending on the hypothetical clinical scenario discussed, including the underlying pathology and the reversibility of the disease process.<sup>41</sup>

Although there can be confusion when the patient is able to participate in the discussion, most of the intractable conflict comes when the patient cannot. In a review of ethics consults at one institution, almost all of the consults were called in situations involving questions of competence/capacity, withdrawal of treatment, disagreements with surrogates, or other situations in which the patient could not actively participate.<sup>42</sup>

Medical decision-making capacity can be defined as a patient’s ability to receive and express information pertinent to their care, and to formulate rational decisions in line with their own values.<sup>43</sup> Accurate assessment of capacity can be challenging in the chaotic milieu of the ED, but is often necessary. One recent study described the use of a clever mnemonic that can be employed to

determine if a patient has decision-making capacity and if emergency treatment can be employed without informed consent (*see Table 3*).<sup>44</sup> If a patient lacks any of the prerequisite abilities for decision making (e.g., inability to choose, communicate, understand, or reason), the patient is considered not to have decision-making capacity. Further, if an emergency with imminent threat to well-being is present, and a surrogate cannot be found, justification exists for medically appropriate treatment without informed consent.

If a patient is deemed not to have decision-making capacity, and a surrogate does exist, physicians generally believe that the “substituted judgment” model is best in making decisions about end-of-life care.<sup>45</sup> This means that the surrogate makes choices for what they think the patient would have wanted. However, arguments have been made that surrogates should use “substituted interests” as opposed to substituted judgments, meaning that surrogates make decisions in the best interest of the patient rather than strictly by what the patient has expressed in the past.<sup>46</sup> Others have offered dynamic systems of understanding of end-of-life care, have called current decision making too rigid, and have offered models for navigating situations in which the patient’s expressed wishes seem at odds with the general interests of the patient.<sup>47-49</sup>

### Practical Applications in the Emergency Department

A busy ED physician is tasked with the rapid diagnosis, stabilization, treatment, disposition, and prognostication of multiple patients at a time. Advanced invasive interventions must be undertaken with a chance for meaningful survival, and should be aligned with an individual patient’s desires. Certain broad recommendations can be made for providing intensive and invasive care for those patients who would benefit most from it.

**Table 3:** CURVES Mnemonic for Assessing Decision-making Capacity and for the Provision of Emergency Treatment

<b>Choose and communicate</b>	<b>Can the patient communicate a choice?</b>
<b>Understand</b>	<b>Can the patient understand the risks, benefits, alternatives, and consequences of the decision?</b>
<b>Reason</b>	<b>Is the patient able to reason and to provide logical explanation for the decision?</b>
<b>Value</b>	<b>Is the decision in accordance with the patient’s value system?</b>
<b>Emergency</b>	<b>Is there a serious and imminent risk to the patient’s well-being?</b>
<b>Surrogate</b>	<b>Is there a surrogate decision maker available?</b>

In the case described at the beginning of the paper, a CT scan shows a penetrating missile injury that crosses the midline with retained ballistic fragments, pneumocranium, and intracerebral as well as subarachnoid bleeding. The patient’s condition is critical and the prognosis is grim. Consultation is made with the neurosurgeon, who recommends supportive and palliative care.

The starting point for the ED physician to tackle this difficult case is to make an assessment of illness progression and to provide an objective estimate of prognosis. The patient appears to be neurologically devastated and has many poor prognostic factors that portend a dismal outcome (advanced age, low Glasgow Coma Scale level, fixed and dilated pupils, hypotension, and penetrating brain injury that crosses the midline).<sup>50</sup> The patient will not ever return to the premonitory state of function, and most likely will expire on the order of minutes to hours as intracranial pressure rises. Communicating these facts to the family is a difficult but necessary task in order to delineate further care. Communicating bad news is a skill that can be taught in medical school and residency programs through didactics, role playing, and standardized patient encounters.<sup>51</sup> It is, however, best refined with experience. Through this delicate

conversation, plans for further care can be made.

The family of our patient may be given the option of being present during resuscitative efforts. Family presence during invasive procedures and resuscitative attempts has been debated over the years, but recent research has shown its benefit.<sup>52</sup> Specifically, a recent multicenter, randomized trial demonstrated decreased symptoms of anxiety, depression, and post-traumatic stress disorder in family members who witnessed resuscitative efforts compared with those who did not.<sup>53</sup> These positive results were noted at three months, and in a follow-up study, were shown to endure at one year.<sup>54</sup> Additionally, family presence did not appear to interfere with medical efforts, did not increase the stress level of medical staff, and did not result in excess medico-legal liability.

At some point in this particular patient’s care, withdrawal of life-sustaining measures may be appropriate. Withholding and withdrawing life-sustaining care is considered ethically and legally equivalent.<sup>55-58</sup> Possibilities for organ donation should be explored. Appreciating cultural and religious differences in family members’ approaches to end-of-life care, as well as maintaining adequate communication throughout this difficult time, is most important.

**Table 4:** Differences Between a POLST and an Advance Directive

Advance Directive
<ul style="list-style-type: none"><li>• For anyone age 18 years and older</li><li>• Provides instructions for <i>future</i> treatment</li><li>• Appoints a health care representative</li><li>• Does not guide emergency medical personnel</li><li>• Guides inpatient treatment decisions when made available</li></ul>
POLST
<ul style="list-style-type: none"><li>• For persons with serious illness — at any age</li><li>• Provides medical orders for <i>current</i> treatment</li><li>• Guides actions by emergency medical personnel when made available</li><li>• Guides inpatient treatment decisions when made available</li></ul>

**Clinical Vignette**

An 82-year-old female with dementia is transported from a local nursing home for altered mental status and fever. Upon arrival to the ED, she is confused but awake. Vital signs are 70/30, 120, 102°F, and 95% on 2 L. The EMS crew brings a signed DNR order from the nursing home. She receives oxygen and IV fluid resuscitation. Despite 2 L of fluid, the BP remains 80/40. She receives broad-spectrum antibiotics for suspected sepsis with a urinary source. The patient does not have decision-making capacity and there is no family available to discuss goals of care. The ED physician considers endotracheal intubation, central line placement, and more invasive maneuvers.

This case illustrates the shortcomings of simple DNR orders and the void in which the ED physician is left. The DNR simply specifies that the patient would not want CPR should she suffer cardiac arrest. Aside from this, it does nothing to communicate what she would prefer in regard to overall goals of care, level of aggressiveness to pursue, or specific interventions desired or excluded. A more comprehensive, specific, and portable method to convey these preferences would be advantageous.

In the early 1990s, a task force was established at the Center for Ethics in Healthcare at Oregon Health

Sciences University to address standardized portable medical orders for patients with progressive and debilitating conditions. The subsequent development of POLST, or Physician Orders for Life-Sustaining Treatment, grew out of this task force. POLST was developed to provide patients a means to inform caregivers about specific treatment preferences before death is imminent, being more specific than simply “do not resuscitate.”<sup>59</sup> Since its development in Oregon, 16 other states have fully endorsed POLST programs, with several others in development.<sup>60</sup> Differences between a POLST and an advance directive are listed in Table 4.<sup>61</sup>

Practically, POLST forms are intended for patients with serious illness or frailty, for whom a health care professional would not be surprised if they died within 12 months. POLST forms provide patients with a means to communicate desires for additional measures beyond CPR to include comfort measures only, limited additional measures (e.g., intravenous antibiotics, intravenous fluids, noninvasive ventilation), or the option for full treatment. Further, specific preferences addressing artificially administered nutrition are delineated, with options ranging from never placing feeding tubes, to placement for a limited trial period, to acceptance of placement for

long-term therapy.

Several recent studies have confirmed the value of POLST forms in capturing and honoring patient preferences in end-of-life care.<sup>62,63</sup> Further, it appears that POLST forms capture patient preference for level of aggressiveness of therapy that is not possible using standardized DNR forms.<sup>64</sup>

**Clinical Vignette**

*EMS calls the ED for online medical control. Paramedics have arrived at the scene where a 45-year-old male is found with a single gunshot wound to the chest. He is pulseless, apneic, has no spontaneous movements, no pupillary response, and has no organized electrical activity on cardiac monitoring. He has no lividity or rigors. The paramedics request a DNR order.*

As mentioned previously, decisions about withholding care should be based on sound scientific evidence and professional standards. Withholding resuscitative efforts for patients who are clearly deceased is appropriate (e.g., patients with rigor mortis, lividity, or evidence of decomposition). Further, withholding resuscitative efforts for certain trauma patients for whom death is the predictable outcome may also be appropriate.<sup>65</sup> Guidelines and position statements are available to guide the emergency physician in making decisions about withholding resuscitative efforts in patients suffering out-of-hospital traumatic arrest (*see Table 5*).<sup>66,67</sup> Limiting exposure of emergency medical personnel and the lay public to lights and sirens transfers of futile resuscitations is beneficial.

Should withholding or termination of resuscitative efforts be contemplated, sensitivity toward the differences of opinion among various stakeholders (families, EMS personnel, ED personnel) regarding the relative value of medical interventions in different situations should be employed. Meticulous communication with families, as well as the provision of adequate psychosocial support, are paramount.

**Table 5:** 2012 NAEMSP-ACSCOT Joint Position Statement on Withholding Resuscitation in Adult Traumatic Arrest

- It is appropriate to withhold resuscitative efforts for certain trauma patients for whom death is the predictable outcome.
- Resuscitative efforts should be withheld for trauma patients with injuries that are obviously incompatible with life, such as decapitation and hemicorporectomy.
- Resuscitative efforts should be withheld for patients of either blunt or penetrating trauma when there is evidence of prolonged cardiac arrest, including rigor mortis or dependent lividity.
- Resuscitative efforts may be withheld for a blunt trauma patient who, on the arrival of EMS personnel, is found to be pulseless, apneic, and without organized electrocardiographic activity.
- Resuscitative efforts may be withheld for a penetrating trauma patient who, on the arrival of EMS personnel, is found to be pulseless and apneic, and there are no other signs of life, including spontaneous movement, electrocardiographic activity, and pupillary response.
- When the mechanism of injury does not correlate with the clinical condition, suggesting a non-traumatic cause of cardiac arrest, standard resuscitative measures should be followed.

### Clinical Vignette

A 70-year-old white male is transferred to the ED by EMS after becoming unresponsive in a local store. Upon EMS arrival to the scene, the patient is pulseless and apneic. The initial electrical rhythm is asystole. He undergoes endotracheal intubation, receives administration of IV epinephrine, and has continuous uninterrupted CPR during transfer. Upon arrival to the ED, the patient has had CPR for 30 minutes with no return of spontaneous circulation and no shockable rhythm identified throughout. The ED physician verifies endotracheal tube placement and the absence of hypothermia and considers termination of resuscitative efforts.

The patient clearly has a grim prognosis. The patient had an arrest unwitnessed by EMS, initial electrical rhythm of asystole, no identifiable shockable rhythm, and no return of spontaneous circulation despite prolonged advanced cardiac life support (ACLS) protocol, including advanced airway placement and vasopressor administration. Termination of resuscitative efforts in the ED should be considered.

Further, termination of efforts in the field may have been considered, if the EMS system has a termination of resuscitation protocol in place. In making these types of decisions, both in the ED and in the field via online medical control, the ED physician is guided by position statements supporting termination of efforts when the survivability approaches zero (see Table 6).<sup>68,69</sup>

### Clinical Vignette

A 60-year-old female is brought to the ED via paramedics after the nursing home called for increasing lethargy. She has a history of CVA with dysphagia requiring PEG tube placement, neurogenic bladder with chronic indwelling urinary catheter, and multiple sacral decubiti. Vital signs, including pulse oximetry, are normal. On exam, she is not responsive to verbal or deep tactile stimuli. There is an equivocal gag reflex present. Paramedics report they think she is DNR/DNI, but are unsure and have no supporting paperwork with them. Point-of-care blood glucose at the bedside is normal.

A common dilemma for the ED

physician arises when patient preference for life-sustaining care is called into question. Patients who have decision-making capacity have the right to accept or refuse any or all medical treatments. Case law for more than 100 years in the United States has supported this right.<sup>70,71</sup> In 1914, the courts ruled that “Every human being of adult years and sound mind has a right to determine what shall be done with his own body....” Moreover, patients who lack decision-making capacity may have their right to accept or refuse therapy asserted by a party with legal authority to do so, such as a health-care proxy, legal guardian, or family member.<sup>72</sup>

In the case described above, however, the desires of the patient and/or proxy are not definitively known. The possibility of an advance directive with a DNR/DNI order exists, but is not proven. Given that ethically withdrawing and withholding care are considered equivalent, in this case the best course of action would seem to be to employ non-invasive measures to “buy time” until an advance directive or surrogate decision maker can be found. If there is no choice but to pursue a more aggressive and invasive course (e.g., intubation), one would not be violating the patient’s wishes by treating and then withdrawing. The error of resuscitating a patient who would not want those efforts is the lesser of two evils compared to withholding efforts from one who would want them.

### Clinical Vignette

A 75-year-old male with newly diagnosed advanced stage lung cancer is evaluated in the ED for fever and dyspnea. The chest X-ray shows a multi-lobar pneumonia; laboratory studies show neutropenia with an absolute neutrophil count of 400. He is given broad-spectrum antibiotics, resuscitated with volume infusion, and supported with oxygen therapy via Venturi mask. His vital signs have stabilized and he is alert and oriented. He is admitted to the hospital. The admitting physician is a member of

**Table 6:** 2011 NAEMSP Position Statement on Termination of Resuscitation in Non-traumatic Cardiopulmonary Arrest

EMS systems should have written protocols that allow for termination of resuscitation (TOR) by EMS providers for patients in non-traumatic cardiopulmonary arrest.

TOR may be considered when, at the time of decision of termination, all of the following conditions have been met:

- The arrest was not witnessed by an EMS provider.
- There is no shockable rhythm identified by an AED or other electronic monitor.
- There is no return of spontaneous circulation prior to EMS transport.

Further research is needed to determine the following:

- The appropriate duration of resuscitation before EMS providers decide that ROSC will not be achieved prior to EMS transport
- The benefit of direct (online) medical oversight in TOR protocols

EMS systems that have TOR protocols should ensure the following are addressed:

- Appropriate management of deceased patient in the field
- Adequate support services for the patient's family

TOR protocols should involve active physician oversight.

There are specific clinical, environmental, and population-based situations in which TOR rules may not apply.

the hospitalist service, and inquires about his code status and preferences for end-of-life care. Advance directives have not been addressed by the primary care doctor or the oncologist involved in his care.

Discussions of end-of-life care and the introduction of palliative care are possible in the ED. As mentioned previously, palliative care can be applicable when disease-curing modalities are employed. If a patient has decision-making capacity, discussions of preferences are valuable, particularly at the point when admission and a prolonged hospital course are expected. It is important for the ED physician to avoid imprecise acronyms and medical jargon. Discussion of specific treatment modalities and overall level of intensity are important when delineating preferences. Describing specific procedures (elective vs. emergent intubations, chest compressions, indwelling vascular access catheters, operative management, preferences for artificial nutrition) and asking specific questions about which of these is desired, should

they become indicated, is necessary. Clear documentation of these discussions in the medical record is recommended, including documentation of patient capacity. As research has shown that patient preferences for end-of-life care are dynamic and change with time, preferences should be verified with the patient and/or surrogate as the medical condition changes. Some degree of prognostication of the current medical condition will be required in order for patients and families to make accurate decisions. It is always important to have open, non-biased, non-judgmental communications with patients and their family members to ensure that care given is in line with their values.

## Conclusion

End-of-life care is difficult in the ED. This review has addressed some of the conflicts and confusions that patients and their families have when they receive care. It has also discussed the importance of communication, sensitivity toward cultural differences, and has given

suggestions for how to handle specific challenging situations.

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72. *Cruzan v. Director, Missouri Dept of Health*, 497 U.S. 261, 270(1990)].
3. Which of the following is true regarding POLST forms?
- POLST forms are a form of advance care planning.
  - POLST forms are legally accepted in all 50 U.S. states.
  - POLST forms were developed initially in California.
  - POLST forms are not portable.
  - none of the above
4. What is the definition of medical durable power of attorney?
- a legal document naming a decision maker to make medical decisions for the patient should the patient be incapacitated
  - a legal document designating a patient's personal attorney as their decision maker
  - a legal document establishing a patient's desires if the patient becomes incapacitated
  - a living will
  - none of the above
5. Which of the following is true regarding palliative care in the ED?
- Palliative care is best practiced by geriatricians.

## CME Questions

- The term "hospice care" is defined as:
  - a comprehensive system of care that focuses on relieving pain and suffering and not on intention of cure; appropriate for patients with life expectancy less than six months
  - palliative care
  - care given that seeks to hasten death
  - care given for those with a terminal illness
  - none of the above
- Which of the following is true regarding research on patients with DNR orders?
  - They are admitted to ICUs more often than to medical wards.
  - They receive CPR more often than patients without DNR orders.
  - They receive higher quality care overall.
  - They receive lower quality of care overall.
  - none of the above

## Emergency Medicine Reports

### CME Objectives

Upon completion of this educational activity, participants should be able to:

- recognize specific conditions in patients presenting to the emergency department;
- apply state-of-the-art diagnostic and therapeutic techniques to patients with the particular medical problems discussed in the publication;
- discuss the differential diagnosis of the particular medical problems discussed in the publication;
- explain both the likely and rare complications that may be associated with the particular medical problems discussed in the publication.

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- B. Palliative care may be initiated in the ED when curative treatment modalities are employed.
- C. Palliative care should be reserved for patients with advance directives indicating DNR/DNI.
- D. none of the above
6. Resuscitative efforts for trauma patients with evidence of prolonged arrest (rigor mortis, lividity) are considered medically futile and may be withheld.
- A. true
- B. false
7. Research has shown that a patient's preferences for resuscitative efforts are uniform and consistent over time.
- A. true
- B. false
8. Physicians are ethically obligated to deliver care that patients request.
- A. true
- B. false
9. Research has shown that patients prefer which physician to discuss advance care planning with them?
- A. ED physician
- B. oncologist
- C. primary care physician
- D. palliative care physician
- E. none of the above
10. Which of the following is the definition of futile medical care?
- A. care that a physician does not want to give
- B. care that produces no useful results
- C. care that a patient does not want to receive
- D. care with a high cost per patient benefit
- E. none of the above

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### Definitions

Term	Definition
ACP (Advanced Care Planning)	ACP is any planning a patient makes about end of life goals and care, including naming someone to make decisions if the patient is unable to do so. It includes naming specific goals and specific procedures or treatments to either accept or decline at the end of life.
Advance Directive	This is a legal document and varies from state to state. It specifies goals of care and specific treatments desired to be given or withheld if the patient is incapacitated.
Living Will	"Advance directive" is sometimes used interchangeably with "living will." It is a document that names how a patient wants to be treated if he or she is dying or incapacitated.
DNR and DNAR	Do Not Resuscitate or Do Not Attempt Resuscitation (to make clear that attempts are not always successful), is the usual acronym used to indicate that the patient does not want advanced cardiac life support if his or her heart were to stop beating.
DNI	Do Not Intubate is the usual acronym used to indicate that the patient does not want intubation or mechanical ventilation if he or she were to develop respiratory distress or stop breathing on their own.
Comfort Care	This is the order given to treat and manage symptoms, but not aggressively treat disease processes or extend life.
POLST	Physician Orders for Life-Sustaining Treatment. A single piece of pink paper that a physician and, in some states, a patient signs indicating the patient's wishes. It is meant to be portable and available to all treatment personnel to describe the patient's wishes.
Durable Power of Attorney	A legal document specifying an individual who may make decisions on behalf of the principle (personal or business) that remains in effect if the principle becomes incapacitated.
Health Care Power of Attorney/Health Care Proxy/Surrogate Decision Maker	A person named by the patient, determined by relationship, or named by court order, who makes decisions related to health care on behalf of the patient if the patient is incapacitated.
Next of Kin	Closest relative and default surrogate when one hasn't been named. This is legally defined in the United States, starting with legal guardian, spouse, adult children, parent, adult siblings, etc.
Medical Decision-making Capacity	A person's ability to receive and express information pertinent to their medical care, and the ability to make choices consonant with that information and one's values. <sup>1</sup>

### Twelve Palliative Care Skills that Emergency Physicians Should Learn

- Assess illness trajectory
- Formulate prognosis
- Communicate bad news
- Plan advanced care
- Resuscitate the terminally ill with family members present
- Manage pain and non-pain symptoms
- Withdrawal and withholding of treatment
- Manage the imminently dying
- Manage hospice patients and Palliative Care Systems referrals
- Understand ethical and legal issues of end of life care
- Display spiritual and cultural competency
- Manage the dying child

### CURVES Mnemonic for Assessing Decision-making Capacity and for the Provision of Emergency Treatment

Choose and communicate	Can the patient communicate a choice?
Understand	Can the patient understand the risks, benefits, alternatives, and consequences of the decision?
Reason	Is the patient able to reason and to provide logical explanation for the decision?
Value	Is the decision in accordance with the patient's value system?
Emergency	Is there a serious and imminent risk to the patient's well-being?
Surrogate	Is there a surrogate decision maker available?

## Differences Between a POLST and an Advance Directive

### Advance Directive

- For anyone age 18 years and older
- Provides instructions for *future* treatment
- Appoints a health care representative
- Does not guide emergency medical personnel
- Guides inpatient treatment decisions when made available

### POLST

- For persons with serious illness — at any age
- Provides medical orders for *current* treatment
- Guides actions by emergency medical personnel when made available
- Guides inpatient treatment decisions when made available

## 2012 NAEMSP-ACSCOT Joint Position Statement on Withholding Resuscitation in Adult Traumatic Arrest

- It is appropriate to withhold resuscitative efforts for certain trauma patients for whom death is the predictable outcome.
- Resuscitative efforts should be withheld for trauma patients with injuries that are obviously incompatible with life, such as decapitation and hemicorpectomy.
- Resuscitative efforts should be withheld for patients of either blunt or penetrating trauma when there is evidence of prolonged cardiac arrest, including rigor mortis or dependent lividity.
- Resuscitative efforts may be withheld for a blunt trauma patient who, on the arrival of EMS personnel, is found to be pulseless, apneic, and without organized electrocardiographic activity.
- Resuscitative efforts may be withheld for a penetrating trauma patient who, on the arrival of EMS personnel, is found to be pulseless and apneic, and there are no other signs of life, including spontaneous movement, electrocardiographic activity, and pupillary response.
- When the mechanism of injury does not correlate with the clinical condition, suggesting a non-traumatic cause of cardiac arrest, standard resuscitative measures should be followed.

## 2011 NAEMSP Position Statement on Termination of Resuscitation in Non-traumatic Cardiopulmonary Arrest

EMS systems should have written protocols that allow for termination of resuscitation (TOR) by EMS providers for patients in non-traumatic cardiopulmonary arrest.

TOR may be considered when, at the time of decision of termination, all of the following conditions have been met:

- The arrest was not witnessed by an EMS provider.
- There is no shockable rhythm identified by an AED or other electronic monitor.
- There is no return of spontaneous circulation prior to EMS transport.

Further research is needed to determine the following:

- The appropriate duration of resuscitation before EMS providers decide that ROSC will not be achieved prior to EMS transport
- The benefit of direct (online) medical oversight in TOR protocols

EMS systems that have TOR protocols should ensure the following are addressed:

- Appropriate management of deceased patient in the field
- Adequate support services for the patient's family

TOR protocols should involve active physician oversight.

There are specific clinical, environmental, and population-based situations in which TOR rules may not apply.

Supplement to *Emergency Medicine Reports*, October 19, 2014: "End-of-Life and Futile Medical Care in the Emergency Department." *Authors:* Jonathan Lofgren, MD, Emergency Physician, Birmingham VA Medical Center, Birmingham, AL; and Michael H. Catenacci, MD, FACEP, Director of Emergency Services, Birmingham VA Medical Center, Clinical Assistant Professor of Internal Medicine, University of Alabama at Birmingham.

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