

When Cardiopulmonary Resuscitation Becomes Harmful

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Abstract. Cardiopulmonary resuscitation is a standard emergency medical procedure. Since its inception in the late 1960s, CPR has been performed on patients unless they or their proxies refuse it. However, like all medical interventions, CPR has its benefits, risks, and consequences. Although the expected benefits of the procedure often outweigh its potential harm, CPR is not always clinically appropriate, especially for the dying, who have a very small statistical chance of surviving the intervention. Just as antibiotics are not prescribed for viruses and surgeries and treatments are withheld when clinically inappropriate, CPR should not be offered as a clinical treatment when it has a very low probability of success and is thought to be futile. Health care providers have an ethical and moral responsibility to withhold clinically inappropriate CPR, even when patients or their proxies request the procedure. *National Catholic Bioethics Quarterly* 17.2 (Summer 2017): 235–245.

Many dying persons freely elect to undergo life-prolonging treatments, but members of this vulnerable patient population are especially at risk for maltreatment when they are unable to make medical decisions for themselves and a proxy must make decisions for them.¹ Cardiopulmonary resuscitation is often performed at the end of life out of

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1. A proxy is the surrogate medical decision maker for an incapacitated patient. Depending on institutional policy, state law, and medical urgency, in the absence of an assigned legal proxy, a patient's provider or health care team may be able to make unilateral decisions about the patient's plan of care. Some institutions require ethics committee consultation, and some states require an assigned legal proxy. In this paper, the term "proxy" refers to an incapacitated

a false sense of hope and compassion. Studies have shown that CPR offers certain very ill patients only a small chance of survival and has numerous documented risks.² As dying patients become increasingly ill and CPR becomes less likely to provide a benefit, no moral or ethical principle justifies performing a clinically inappropriate procedure on a patient, even if the patient or proxy gives consent. On the contrary, health care providers have an ethical and moral responsibility to refuse to perform clinically inappropriate CPR in order to treat their patients with the same respect, understanding, and concern that they would want for themselves at the end of life.

Informed Consent and Initiating CPR on Incapacitated Persons

Cardiopulmonary resuscitation was one of the first medical interventions to be performed on patients without informed consent.³ Norwegian physician Kristian Igelsrud successfully resuscitated a patient who experienced cardiac arrest while under anesthesia in 1901. The patient's chest was cut open, and cardiac massage was performed until normal cardiac function was successfully restored. In 1958, American electrical engineer William Kouwenhoven introduced closed-chest cardiac massage.⁴ Through what is now known as chest compressions, a provider exerts vigorous pressure on the external chest wall with his or her hands to manually pump the heart, ventilate the lungs, and restore lost blood circulation through interval changes in inner chest pressure. Kouwenhoven and colleagues performed chest compressions with electric shocks, or defibrillation, on twenty patients aged two months to eighty years at Johns Hopkins Hospital. In the 1960 landmark paper, fourteen patients were "alive without central nervous system damage," a 70 percent survival rate.⁵

patient's legal proxy for medical decisions, regardless of whether the proxy was named because of institutional policy, legal advance directives, or next-of-kin laws or was assigned by the court system as a legal guardian. See Jennifer Moye, Charles P. Sabatino, and Rebecca Weintraub Brendel, "Evaluation of the Capacity to Appoint a Healthcare Proxy," *American Journal of Geriatric Psychiatry* 21.4 (April 2013): 323–336, doi: 10.1016/j.jagp.2012.09.001.

2. Gregory L. Larkin et al., "Pre-resuscitation Factors Associated with Mortality in 49,130 Cases of In-Hospital Cardiac Arrest: A Report from the National Registry for Cardiopulmonary Resuscitation," *Resuscitation* 81.3 (March 2010): 310, doi: 10.1016/j.resuscitation.2009.11.021; and Mark H. Ebell, Anna M. Afonso, and Romergryko G. Geocadin, "Prediction of Survival to Discharge following Cardiopulmonary Resuscitation Using Classification and Regression Trees," *Critical Care Medicine* 41.12 (December 2013): 2696, doi: 10.1097/CCM.0b013e31829a708c.

3. John M. Luce and Douglas B. White, "A History of Ethics and Law in the Intensive Care Unit," *Critical Care Clinics* 21.5 (January 2009): 225, doi: 10.1016/j.ccc.2008.10.002.

4. Jonas A. Cooper, Joel D. Cooper, and Joshua M. Cooper, "Cardiopulmonary Resuscitation: History, Current Practice, and Future Direction," *Circulation* 114.25 (December 19, 2006): 2840, doi: 10.1161/CIRCULATIONAHA.106.610907.

5. W.B. Kouwenhoven, James R. Jude, and G. Guy Knickerbocker, "Closed-Chest Cardiac Massage," *JAMA* 173.10 (July 9, 1960): 1064–1066, doi: 10.1001/jama.1960.03020280004002.

Considered virtually miraculous when it was introduced to the medical community, the nascent emergency procedure quickly became widespread.⁶ In addition to Kouwenhoven's chest compressions and defibrillation, modern CPR procedures include assisted mouth-to-mouth breathing, artificial airway insertion, medication administration, and intravenous, intraosseous, or central line catheterization.⁷ These techniques are performed to restore the heart's normal electrical rhythm and mechanical function, known as return of spontaneous circulation.

Kouwenhoven initiated his emergency procedures without explicitly securing informed consent from his patients. If a patient is unable to give consent, proxy consent for a procedure is justifiable when the treatment is expected to offer benefits without risks of grave harm. Usually a family member gives proxy consent, but another responsible person, such as the provider, may act as proxy when no family member can be found in a timely manner. The idea of proxy consent is rooted in the Christian maxim of the Golden Rule: "Do unto others as you would have others do unto you" (Luke 6:31).⁸ Secular institutions operate under the doctrine of *parens patriae* (parent of the nation) where the state has the legal authority to protect and thus serve as proxy for vulnerable incapacitated patients.⁹

In emergency situations when familial consent cannot be obtained, the provider can assume responsibility for the patient and licitly give proxy consent for life-saving procedures. Kouwenhoven and colleagues assumed the role of proxy in the emergency situation of cardiac arrest when they performed CPR on the twenty patients in their study. Today, health care providers, emergency service personnel, and laypeople continue to initiate CPR on incapacitated persons in emergency situations without informed consent, acting as proxy, on the presumption that the patient would consent to the treatment if able.¹⁰ The law upholds this ethic. Every state in the United States has some form of Good Samaritan statute that protects rescuers from legal liability for injuries they may cause when assisting incapacitated persons

6. Luce and White, "History of Ethics and Law," 225.

7. During advanced CPR, providers administer medications as an additional therapeutic effort to restore cardiac function. From least to most invasive, providers may try to place a peripheral intravenous catheter (IV), an intraosseous (IO) device within the inner bone of the shoulder or shin, or a central venous catheter also known as a central line within a large vein in the neck, chest, or groin to give potentially life-saving medications. See Siobhan P. Brown et al., "A Randomized Trial of Continuous versus Interrupted Chest Compressions in Out-of-Hospital Cardiac Arrest: Rationale for and Design of the Resuscitation Outcomes Consortium CCC Trail," *American Heart Journal* 169.3 (March 2015): 334–341, doi: 10.1016/j.ahj.2014.11.011.

8. William E. May, *Catholic Bioethics and the Gift of Human Life*, 3rd ed. (Huntington, IN: Our Sunday Visitor, 2013), 214–215; and Catechism, n. 2295.

9. See Carl Hernandez III, "Legitimate Exercise of Parens Patriae Doctrine: State Power to Determine an Incompetent Individual's "Right to Die" after *Cruzan ex rel. Cruzan v. Director, Missouri Dept. of Health*," *Brigham Young University Journal of Public Law* 6.1 (March 1, 1992): 167–197.

10. Kouwenhoven et al., "Closed-Chest Cardiac Massage," 1064–1065.

in good faith during emergency situations.¹¹ The Catholic Church also upholds this ethic. *The Ethical and Religious Directives for Catholic Health Care Services (ERDs)* state that medical interventions may be licitly performed “in an emergency situation when consent cannot be obtained and there is no indication that the patient would refuse consent to the treatment.”¹²

Limitations and Side Effects of CPR

As with all medical interventions, CPR has harmful side effects and consequences. During mouth-to-mouth assisted breathing, incapacitated patients frequently sustain bruising to the face and neck and risk stomach inflation and, in very rare cases, rupture. Intubation has been known to damage the mouth, airway passages, and esophagus and cause a loss of teeth. In rare cases, intubation may cause neck fractures or pierce the sinuses and enter the brain in patients with head injuries. Defibrillation can cause bruising and electrical burns on the external chest wall. Placement of a central venous catheter may cause an air embolism and lung collapse in rare cases. Chest compressions frequently bruise the chest and fracture the ribs and sternum, especially in older adults whose bones have lost their elasticity.¹³

Conventionally, it was estimated that one-third of resuscitated adult patients sustain rib fractures and one-fifth sustain sternum fractures, but recent studies using CT scans rather than traditional x-rays have found that 86 percent of adult males and 91 percent of adult females sustain CPR-related skeletal chest injuries after resuscitation. Children, on the other hand, are at greater risk of sustaining abdominal injuries from chest compressions, because of their small abdominal cavity. In rare cases, chest compressions may cause lung collapse, injure the spleen or liver, and cause bleeding on the surface of the heart and in the brain, lungs, and neck.¹⁴

Since Kouwenhoven and colleagues published their 1960 paper on closed-chest cardiac massage, no study has been able to replicate the 70 percent CPR survival rate with no neurological damage.¹⁵ The disparity between historical success rates of CPR and modern data is thought to be due to the higher acuity of modern patients.¹⁶ As

11. Health Resources and Services Administration, *Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP): Legal and Regulatory Issues* (Washington, DC: US Department of Health and Human Services, 2006), 46.

12. US Conference of Catholic Bishops, *Ethical and Religious Directives for Catholic Health Care Services*, 5th ed. (Washington, DC: USCCB, 2009), dir. 26.

13. Kelly Olds, Roger W. Byard, and Neil E. I. Langlois, “Injuries Associated with Resuscitation: An Overview,” *Journal of Forensic and Legal Medicine* 33 (July 2015): 40, doi: 10.1016/j.jflm.2015.04.003; and Claas T. Buschmann and Michael Tsokos, “Frequent and Rare Complications of Resuscitation Attempts,” *Intensive Care Medicine* 35.3 (March 2009): 400–401, doi: 10.1007/s00134-008-1255-9.

14. Eduard Kralj et al., “Frequency and Number of Resuscitation Related Rib and Sternum Fractures Are Higher than Generally Considered,” *Resuscitation* 93 (August 2015): 138–141, doi: 10.1016/j.resuscitation.2015.02.034; and Olds et al., “Injuries Associated with Resuscitation,” 40–41.

15. Kouwenhoven et al., “Closed-Chest Cardiac Massage,” 1065.

16. Cooper et al., “Cardiopulmonary Resuscitation,” 2844.

medical technology has advanced since the 1960s, sicker patients are able to survive longer without cardiac or respiratory arrest.

Recent studies reveal average CPR survival rates of about 18 percent following in-hospital arrest and less than 7 percent following out-of-hospital arrest. Moreover, many studies do not take mental status, overall function, and hospital discharge into account when describing survival rates.¹⁷ Changes to the 2010 CPR guidelines emphasized high-quality chest compressions over rescue breathing, but meta-analysis has shown that the protocol modification has not improved long-term outcomes, such as overall neurological function and hospital discharge. Fourteen percent of CPR survivors had a favorable neurological outcome under both the 2005 and 2010 protocols (95% CI, range 0.06–0.22); and the mean survival to discharge rate did not significantly change under the new protocol (2005, mean=15%, 95% CI, 0.10–0.20; 2010, mean=14%, 95% CI, 0.08–0.20).¹⁸

Although it is impossible to predict with absolute certainty which patients will have a good overall response to CPR, providers are able to predict with relative certainty who will survive on the basis of patients' objective physiological functioning. Renee Stapleton and colleagues found that patients aged sixty-seven years and older who did not have chronic disease survived an average of 26.7 months after CPR compared to less than nine months for patients with mild to moderate chronic obstructive pulmonary disease (7.7, 1.1–27.0, $p<0.001$), congestive heart failure (8.9, 1.2–31.8, $p<0.001$), chronic kidney disease (3.5, 0.6–15.8, $p<0.001$), cancer (6.3, 1.0–24.0, $p<0.001$), diabetes (8.9, 1.2–31.9, $p<0.001$), or cirrhosis (5.6, 0.9–20.8, $p<0.001$). Patients with more severe forms of these diseases lived less than six months (COPD 5.0, 0.9–17.0, $p<0.001$; CHF 4.1, 0.8–14.5, $p<0.001$; CKD 5.9, 1.2–17.6, $p<0.001$; cancer 3.5, 0.7–12.5, $p<0.001$; diabetes 6.0, 1.0–20.6, $p<0.001$; cirrhosis 2.8, 0.3–12.3, $p<0.001$).¹⁹ Furthermore, hypotension and vasopressor use are significantly associated with mortality despite CPR efforts, most likely due to the acuity of the patient prior to arrest.²⁰

Age itself is not an absolute contraindication to CPR. Among patients seventy years of age and older, the overall CPR rate of survival to hospital discharge is approximately 4.1 percent (95% CI, 3.0–5.6%), compared with 7.6 percent (95% CI, 6.7–8.4%) in other age groups.²¹ Kouwenhoven and colleagues themselves reported a case study of an eighty-year-old woman who experienced cardiac arrest during

17. Ibid., 2843.

18. Aiqun Zhu and Jingping Zhang, "Meta-Analysis of Outcomes of the 2005 and 2010 Cardiopulmonary Resuscitation Guidelines for Adults with In-Hospital Cardiac Arrest," *American Journal of Emergency Medicine* 34.6 (June 2016): 5–6.

19. Renee D. Stapleton et al., "Long-Term Outcomes after In-Hospital CPR in Older Adults with Chronic Illness," *Chest* 146.5 (November 2014): 1219, doi: 10.1378/chest.13-2110.

20. Larkin et al., "Pre-resuscitation Factors Associated with Mortality," 308–310.

21. Esther M. M. van de Glind et al., "Pre-arrest Predictors of Survival after Resuscitation from Out-of-Hospital Cardiac Arrest in the Elderly: A Systematic Review," *BMC Geriatrics* 13.68 (July 3, 2013): 5–7, doi: 10.1186/1471-2318-13-68.

an operation, was given two minutes of CPR, and survived with “no sign of central nervous system damage.”²² Pre-arrest comorbidities, rather than age, offer better insights into a patient’s chance of surviving CPR, being discharged from the hospital, and making a full recovery.

Ethics of Initiating or Withholding CPR When the Probability of Success Is Low

After Kouwenhoven and colleagues introduced CPR, it was generally considered unethical to withhold it from a patient, regardless of informed consent, because the intended good of restoring life vastly outweighed any possible harms.²³ However, less than a decade after its introduction, providers quickly recognized the clinical inappropriateness of CPR in certain cases. Clinically ineffective CPR was first noted in the *British Medical Journal* in 1968. A retired doctor in his late sixties, who had advanced stomach cancer and a history of previous myocardial infarction, experienced cardiac arrest while in a London hospital. He was revived by CPR multiple times after explicitly stating that he did not want the procedure, and he died three weeks later in an unconscious state, dependent on a permanent artificial airway and blood products.²⁴

Providers were disturbed by such cases, and some began to covertly place purple dots on the charts of patients who they did not want resuscitated, or they performed “slow codes,” exerting less-than-maximal resuscitation efforts in cases where resuscitation was considered futile. In 1974, in an effort to protect patient autonomy, the American Medical Association suggested physicians document do-not-resuscitate (DNR) decisions in patients’ medical records after discussing the decisions with them.²⁵

In the 1968 London case, the patient’s autonomy was violated when CPR was performed after he stated that he did not want it. In certain cases, however, providers may legitimately, out of a sense of beneficence, initiate treatment on patients who refuse it.²⁶ For example, when a depressed patient refuses to take life-sustaining medications, the provider may deem the patient incompetent to make informed decisions and obtain legal authority to override the patient’s expressed wishes. In such a case, the provider, being responsible for the patient’s well-being, is acting as proxy on behalf of the patient.²⁷

In the 1968 case, the providers may have overridden the patient’s expressed wishes out of beneficence, since CPR was widely considered a beneficent procedure with minimal risks. Today, CPR is known to have more risks and less widespread

22. Kouwenhoven et al., “Closed-Chest Cardiac Massage,” 1066.

23. Luce and White, “History of Ethics and Law,” 223–224, 225.

24. W. S. Symmers Sr., “Not Allowed to Die,” *British Medical Journal* 1.5589 (February 17, 1968): 442.

25. Luce and White, “History of Ethics and Law,” 225.

26. Beauchamp and Childress, *Principles of Biomedical Ethics*, 176–177.

27. Luce and White, “History of Ethics and Law,” 224.

success, but it can still be beneficial. For example, electrical defibrillation, an integral component of CPR, is a quick and objectively beneficial treatment for ventricular fibrillation, an abnormal heart rhythm that can be lethal if left untreated.²⁸

Thus, a provider can licitly give proxy consent on behalf of a patient and perform CPR if the provider believes that it is in the patient's best interest. Similarly, a provider can licitly act out of beneficence and override a patient's DNR order in a case of ventricular fibrillation, since the risk of death is greater than the risks from defibrillation. However, a provider is not morally obligated to offer and perform CPR, even if a patient or proxy requests it, if the provider does not think the procedure will benefit the patient.

Obligatory and Optional Treatments

When disease is clearly overpowering a patient's body and curative measures are likely to cause more harm than benefit, certain medical treatments are no longer obligatory. The distinction between obligatory and optional treatment is rooted in the Catholic tradition. The *ERDs* define ordinary, or proportionate, means of preserving life as "those that in the judgment of the patient offer a reasonable hope of benefit and do not entail an excessive burden or impose excessive expense on the family or the community" (dir. 56). Inversely, extraordinary, or disproportionate, means of preserving life are "those that in the patient's judgment do not offer a reasonable hope of benefit or entail an excessive burden, or impose excessive expense on the family or the community" (dir. 57).

Patients have a moral responsibility to sustain their lives by proportionate means.²⁹ Providers have the same obligation, because they are responsible for their patients' care and are proxies acting on behalf of their incapacitated patients.³⁰ Proportionate means are obligatory for the provider, proxy, and patient, but disproportionate means are optional and can ethically be withheld or withdrawn.

Providers, proxies, and patients may worry that by withholding extraordinary treatment, they are killing their patients, their loved ones, or themselves. Yet ethicists, US law, and moral authorities differentiate between killing and letting die.³¹ Ethicists like Dietrich Bonhoeffer argue that the two are "fundamentally different."³² The American court system agrees. Since the 1976 New Jersey Supreme Court case of Karen Ann Quinlan, a comatose twenty-one-year-old whose parents wanted to remove her ventilator, American courts have differentiated natural death from passive

28. Mark Hilberman et al., "Marginally Effective Medical Care: Ethical Analysis of Issues in Cardiopulmonary Resuscitation," *Journal of Medical Ethics* 23.6 (December 1997): 361.

29. *Ibid.*, dir. 56.

30. Pius XII, "The Prolongation of Life: An Address to an International Congress of Anesthesiologists" (November 24, 1957), *National Catholic Bioethics Quarterly* 9.2 (Summer 2009): 329, 330–331.

31. Beauchamp and Childress, *Principles of Biomedical Ethics*, 126.

32. Dietrich Bonhoeffer, *Ethics* (New York: Simon and Schuster, 1955), 161.

euthanasia. When proxies request care that providers deem futile, however, American courts have adjudicated the disputes inconsistently.³³

Notably in the Quinlan case, Karen's father, Joseph, a devout Catholic, petitioned the courts to remove her ventilator after consulting his parish priest, who referenced Pope Pius XII's distinction between ordinary and extraordinary means of sustaining life.³⁴ The Catholic Church continues to affirm the difference between natural death, suicide, and passive euthanasia and permits the refusal of extraordinary means, such as clinically ineffective CPR at the end of life, for legitimate moral reasons. The *Declaration on Euthanasia* states, "It is permitted in conscience to take the decision to refuse forms of treatment that would only secure a precarious and burdensome prolongation of life, so long as the normal care due to the sick person in similar cases is not interrupted."³⁵ Refusing extraordinary means allows natural death to occur and is morally licit, whereas refusing or withholding obligatory care is passive euthanasia, which is morally illicit.

The concept of extraordinary means can be difficult to apply to clinical practice, given the technological advancements of modern medicine, the ambiguous concept of medical futility, the uncertainty of prognoses, and highly individualized conceptions of quality of life. To determine whether an intervention is proportionate or disproportionate, its objective attributes, such as predicted pain or required resources, side effects, and possible negative outcomes, must be considered.³⁶

Bioethicists Germain Grisez and Joseph Boyle outline life-prolonging treatment that can be legitimately refused. These include treatment that "is experimental or otherwise risky" or "is itself painful or brings about other experienced conditions which are undesirable." Treatment can also be refused when "the requirements for the application of medical care would interfere with the activities and experiences which one desires during the time remaining," or when the patient finds the treatment "psychologically repugnant . . . [such as the] humiliation at being dependent upon other people and even on machinery to carry on one's vital functions." Furthermore, patients must consider whether a treatment "makes very severe demands upon others—for example, the depletion of a family's financial resources or the tying up of medical facilities which could actually be put to use for the benefit of others."³⁷ On the basis of these guidelines, CPR that has a low probability of success could be ethically withheld by a provider who, in the absence of informed consent in an emergency

33. Mildred Z. Solomon, "Modern Dying: From Securing Rights to Meeting Needs," *Annals of the New York Academy of Sciences* 1330 (November 2014): 106–107, doi: 10.1111/nyas.12581.

34. Robert D. McFadden, "Karen Ann Quinlan, 31, Dies; Focus of '76 Right to Die Case," *New York Times*, June 12, 1985, <http://www.nytimes.com/>.

35. Congregation for the Doctrine of the Faith, *Declaration on Euthanasia* (May 5, 1980), IV.

36. Germain Grisez and Joseph M. Boyle Jr., *Life and Death with Liberty and Justice: A Contribution to the Euthanasia Debate* (South Bend, IN: University of Notre Dame Press, 1979), 268–269.

37. *Ibid.*

situation, believes that the intervention's risks to the patient will outweigh its benefits and that the patient would not want the procedure if he or she could consent.

Withholding CPR When Success Is Very Unlikely

At times, CPR is expected to be so ineffective that the patient's probability of survival is equal to chance, or 1 percent. The procedure is clinically inappropriate because the risk of harm vastly outweighs the likelihood of benefit and therefore is futile.³⁸ Quantitatively, an intervention, which has a likelihood of success equal to that of chance or a placebo, is considered medically futile. Qualitatively, medically futile interventions are difficult to describe; overall, they provide no benefit to a patient.³⁹ Providers are not obligated to provide them and in fact have a moral responsibility to refuse to provide them.⁴⁰

Medical futility is not a well-defined concept, but providers, proxies, and patients must acknowledge that medicine has its inherent limits. Modern society often expects that death can be overcome by medical interventions, including CPR. Moreover, many people have an unrealistic belief in their survival and functionality after CPR. Only 9 percent of elderly patients aged seventy years and older have a realistic perception of surviving in-hospital CPR.⁴¹ Similarly, about 70 percent of proxies overestimate their loved one's chances of survival,⁴² and patients' end-of-life preferences are guessed incorrectly about one in three times.⁴³

Although patients and proxies may request CPR on the basis of an unrealistic hope of survival, providers are not legally or morally obligated to perform CPR when they believe it is nonbeneficial or otherwise clinically inappropriate. American courts are generally unwilling to approve of actions that will cause the death of a patient, but they are equally unwilling to punish providers for withholding interventions that

38. Ebell et al., "Prediction of Survival to Discharge," 2695.

39. Lawrence J. Schneiderman, Nancy S. Jecker, and Albert R. Jonsen, "Medical Futility: Its Meaning and Ethical Implications," *Annals of Internal Medicine* 112.12 (June 15, 1990): 951–952, doi: 10.7326/0003-4819-112-12-949.

40. Deborah L. Kasman, "When Is Medical Treatment Futile? A Guide for Students, Residents, and Physicians," *Journal of General Internal Medicine* 19.10 (October 2004): 1054, doi: 10.1111/j.1525-1497.2004.40134.x.

41. Derrick H. Adams and David P. Snedden, "How Misconceptions among Elderly Patients regarding Survival Outcomes of Inpatient Cardiopulmonary Resuscitation Affect Do-Not-Resuscitate Orders," *Journal of the American Osteopathic Association* 106.7 (July 2006): 402–403.

42. Elizabeth A. Boyd et al., "'It's Not Just What the Doctor Tells Me': Factors That Influence Surrogate Decision-Makers' Perceptions of Prognosis," *Critical Care Medicine* 38.5 (May 2010): 1274.

43. David I. Shalowitz, Elizabeth Garrett-Mayer, and David Wendler, "The Accuracy of Surrogate Decision Makers: A Systematic Review," *Archives of Internal Medicine* 166.5 (March 2006): 495.

have been deemed inappropriate or futile.⁴⁴ For example, Catherine Gilgunn was an elderly woman whose proxy, her daughter Joan, wanted doctors to do everything medically possible to sustain her life.⁴⁵ The physicians refused to perform CPR that they had deemed clinically inappropriate, entered a DNR order for Catherine, and removed her ventilator against Joan's request.⁴⁶ In the landmark 1995 case *Gilgunn v. Massachusetts General Hospital*, the court ruled that the physicians were not guilty of neglect.⁴⁷

Although hospital policies vary, providers can override patient and proxy wishes regarding CPR when a treatment is clinically inappropriate. For example, in 2006, Massachusetts General Hospital adjusted its policy to encourage providers to protect "imminently dying" patients from further harm "by not offering CPR if it is not deemed to be a reasonable treatment option" and recommended resolving conflicts through the hospital ethics committee. Between 2007 and 2013, the hospital ethics committee recommended DNR status without patient or proxy agreement in sixty-one cases, and no hospital litigation was related to the change in policy.⁴⁸ In cases where patients or proxies request CPR that has been deemed clinically inappropriate, providers ought to educate them about the futility of the procedure and, if necessary, consult with the facility's ethics committee.

To Care When We Cannot Cure

In *Amoris laetitia*, Pope Francis reminds all health care providers of the "urgency to assert the right to a natural death, without aggressive treatment and euthanasia."⁴⁹ Aside from inflicting disproportionate pain and suffering, aggressive emergency medical treatments like CPR at the end of life do a disservice to the dying, their loved ones, and their providers. Presenting false hopes of survival deprives the dying of their unique opportunity to find new meaning for their lives within their suffering.⁵⁰ It also denies the grieving their chance to prepare emotionally for their loss.⁵¹

44. John M. Luce and Ann Alpers, "Legal Aspects of Withholding and Withdrawing Life Support from Critically Ill Patients in the United States and Providing Palliative Care to Them," *American Journal of Respiratory and Critical Care Medicine* 162.6 (December 2000): 2029, doi: 10.1164/ajrcrm.162.6.1-00.

45. Gina Kolata, "Court Ruling Limits Rights of Patients," *New York Times*, April 22, 1995, <http://www.nytimes.com/>.

46. Luce and Alpers, "Legal Aspects of Withholding and Withdrawing Life Support," 2029.

47. Gina Kolata, "Court Ruling Limits Rights of Patients."

48. Andrew M. Courtwright et al., "Experience with a Hospital Policy on Not Offering Cardiopulmonary Resuscitation When Believed More Harmful than Beneficial," *Journal of Critical Care* 30.1 (February 2015): 174–175.

49. Francis, *Amoris laetitia* (March 19, 2016), n. 83.

50. Ira R. Byock, "The Nature of Suffering and the Nature of Opportunity at the End of Life," *Clinics in Geriatric Medicine* 12.2 (May 1996): 240–248.

51. Latifat Apatira et al., "Hope, Truth, and Preparing for Death: Perspectives of Surrogate Decision Makers," *Annals of Internal Medicine* 149.12 (December 18, 2006): 5;

Health care providers too are affected by patients' deaths. Providing aggressive treatment at the end of life has been linked to moral distress and burnout among them.⁵² Not surprisingly, a majority of health care providers choose to forgo aggressive intervention for themselves at the end of their lives.⁵³ They have a duty to treat their patients with the same dignity and respect they desire for themselves.

Although medical procedures like CPR may be futile at the end of life, care—such as nutrition and hydration, bathing, pain relief, and other comfort measures—is never futile, because it affirms the dignity of the dying. When providers have nothing left to offer the dying but their presence, they are providing the most fundamental care of all: compassion, which in the Latin means “to suffer with.”

and Elisabeth Kubler-Ross and David Kessler, *On Grief and Grieving* (New York: Scribner, 2005), 5.

52. Lilia S. Meltzer and Loucine M. Huckabay, “Critical Care Nurses’ Perceptions of Futile Care and Its Effect on Burnout,” *American Journal of Critical Care* 13.3 (May 2004): 206.

53. Vyjeyanthi S. Periyakoil et al., “Do Unto Others: Doctors’ Personal End-of-Life Resuscitation Preferences and Their Attitudes toward Advance Directives,” *Public Library of Science* 9.5 (May 28, 2014): e98246, doi: 10.1371/journal.pone.0098246; and Alice Coffey et al., “Nurses’ Preferred End-of-Life Treatment Choices in Five Countries,” *International Nursing Review* 60.3 (September 2013): 316–317, doi: 10.1111/inr.12024.