

MEDICAL PROCEDURES AT THE END OF LIFE IN A PANDEMIC: A  
SPECIAL FOCUS ON THE NOVEL CORONAVIRUS (SARS-COV-2)

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## ABSTRACT

Helping patients and their families prepare for the end of life is a privilege for physicians. Often these discussions are very sensitive; one must be able to navigate the complexities of dying while maintaining the strong, intimate relationship with a person who has entrusted the doctor with his or her final care. Many of the same principles of medical ethics still apply such as informed consent, acknowledging different degrees of health literacy, and cultural humility. With end-of-life care, physicians are responsible for providing their patients dignity in death. In doing so, it is important to decide how aggressive or intense medical treatment should be. There is evidence to suggest that early involvement of palliative care, foregoing invasive procedures or surgeries, and honest communication with families can improve the dying experience. The COVID-19 pandemic has only added more challenges to an already difficult art that physicians spend entire careers working on perfecting. Nevertheless, this provides even more reason to be proactive in determining what is most important for every individual in their final days.

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## CHAPTER 1: INTRODUCTION

The progression of modern medicine has led to truly wonderful life-sustaining developments that allow physicians and their teams to master individual parts of the human body. The medical procedures that facilitate those advances are found at the intersection of many bioethical principles, most obviously informed consent, health policy, and research ethics. The way that the medical field goes about obtaining consent for procedures is never static; recently in Pennsylvania *Shinal v. Toms, M.D.*, the court ruled that that physicians themselves – not any other staff with whom the physician works – must be the ones to consent their patients.<sup>1</sup> In this particular case, a physician assistant consented the patient before neurosurgery that resulted in many complications. The court determined that, without direct dialogue between the patient and the physician, the physician could not be certain that the patient was fully informed of the risks of the operation. Goldberger *et al.*'s succinct functional definition of informed consent states that it, “entails providing patients with specific knowledge related to planned medical procedures, namely, the indications, risks and benefits, and alternatives.”<sup>2</sup> While the *Shinal v. Toms, M.D.* decision excludes routine and non-surgical treatments<sup>3</sup>, it still covers a host of regular procedures that can be found at any given hospital on any day. The approach to treatment of coronary heart disease, as it is the leading cause of death in the United States, and its many sequelae illuminates both the advances and shortcomings of the country's health system. Studies have shown that there are considerable gaps in the care that different ethnic groups receive which can be attributable to numerous factors including provider implicit bias.<sup>4</sup> Black Americans are shown to disproportionately be referred for cardiac catheterization less frequently than their white peers. One of the

complications of coronary artery disease is reduced functioning of the heart known as heart failure. Per the American College of Cardiology, more than six million American adults had heart failure between 2013-2016, and as a progressive condition that may be irreversible in some cases, a significant amount of those adults will encounter a healthcare professional proposing an automatic cardio defibrillator (AICD) for their safety.<sup>5</sup> Dysrhythmias including ventricular tachycardia and ventricular fibrillation are a deadly complication of heart failure, so AICD's are placed for both primary and secondary prevention. This particular operation involves leaving hardware in the body that is designed to intervene on a patient's heart rhythm if it detects an abnormality – a level of sophistication that many other foreign bodies that are surgically implanted lack. Because of the programmability of the device and its impact on one of the most important systems of the body, it is imperative that patients know exactly what receiving one entails. With all consents, it is important that the patient has full knowledge of the procedure. In the setting of an urban population that, at baseline, has low health literacy and higher rates of illiteracy, it is very difficult to convey this information comprehensively. One may argue that full informed consent would be impossible in this scenario since the patient will not have the proper framework to grasp all medical points mentioned in their brief consent encounter with the physician. Why it is so important that patients are aware of all aspects of their decisions in regard to AICD is that the device is designed to administer a very surprising and unpleasant shock to the individual whose heart switches into a potentially dangerous rhythm. Nearly one third of patients who receive an implanted defibrillator will receive a shock while dying, causing unnecessary suffering.<sup>6</sup> Health literacy directly impacts one's ability to comprehend medical options,

and it has been shown that greater knowledge of the function of an AICD was inversely associated with end-of-life decisions to extend the function of the device such as replacing the generator or maintaining defibrillation therapy.<sup>6</sup>

Included in Matlock *et al.*'s 2011 study<sup>5</sup> are statements from providers and patients about placing trust in physicians. Through years of training and experience, physicians gain the confidence to handle the trust of their patients' lives. This concept is so integral to the doctor-patient relationship and the healthcare system as a whole, it has been proposed to measure and document trust as a quality insurance measure similar to near-miss events and adverse outcomes. Thom *et al.* define trust as:

The acceptance of a vulnerable situation in which the “truster” believes that the trustee will act in the “truster's” best interests...physician attributes identified by patients as engendering trust may be grouped into domains of technical competency, interpersonal competency, and agency (also called fidelity, loyalty, or fiduciary duty)<sup>7</sup>

The four attributes listed above more closely quantify the ability of a physician to be considered trustworthy. They do not exist in a vacuum either; perception of one has implications on another. Thom *et al.* also provide the clinical use of a trusting relationship: trust is linked with adherence, continuity, and satisfaction; the latter of which is distinct from trust in that satisfaction is a retrospective judgment while trust is an expectation of the future. Important to note about continuity is that it is one of the many healthcare disparities that people of color experience in the healthcare system in the United States. Consequently, there are lower rates of seeking preventative care and surgical treatment compared to their white counterparts. In examining any bioethical component of modern healthcare as it is delivered in the United States, one must always be conscious of existing inequalities. Therefore, one may reasonably say that in urban

settings, trust is of utmost importance; providers should be conscious of an actively seek the trust of their patients. Practices that can increase this include competency, communication, caring, and honesty.

Physicians have the ultimate privilege of establishing a personal relationship with their patients for whose health and wellbeing they are responsible. Such a connection relies on reciprocal trust; however, the obligation is on the physician to earn a patient's trust because the relationship is inherently unbalanced. Patients share intimate details of their emotional, social, and medical lives whereas the physician does (and, arguably, should) not.

## CHAPTER 2: PROCEDURES & INTERVENTIONS LATE IN LIFE

Heart failure is a common problem throughout the world. In the United States, the most common etiology is ischemic heart disease which is a process of starving the cells of the heart of oxygen over time; the heart then remodels itself causing it to function less efficiently than it had previously. In lower income countries, other causes are more prevalent, including untreated rheumatic valvular disease, peripartum and idiopathic cardiomyopathy, and hypertension<sup>8</sup>. The result is an estimated 6.2 million people in the United States and 26 million people worldwide suffering from heart failure. The incidence of heart failure increases with age: 9 men and 6 women out of 1000 people aged 65-74, 18 and 12 aged 75-84, and 39 and 31 aged 85-94, respectively, have heart failure according to the Framingham 44-year follow-up study.<sup>9</sup>

When considering the possibility of surgically implanting an AICD, it would be wise to keep the age of the patient in mind. It has been observed that “approximately one third of elderly patients undergo a surgical intervention during the last year of life and most of these procedures occurred in the month before death.”<sup>10</sup> It is for this reason that quality of life discussions must be prioritized in patients in these situations. Just like the patients who were unaware of the consequences of their AICDs working properly, patients who underwent more invasive surgeries may have similar ignorance when consenting. Furthermore, “[Medicare] beneficiaries who underwent surgery typically had more hospital admissions, longer duration of stay, and a greater number of days spent in intensive care.”<sup>10</sup> It is unlikely that these particular people knew they would be at greater risk for prolonged hospitalizations. Families who help with decision making often speak about not wanting their relative to be over-manipulated – meaning, they prefer the

individual and their body be more at peace than to be treated as devoid of humanity. While not directly implicated in individual surgeries, it might be worth incorporating these findings into the family discussions, as they seem as relevant to outcomes as surgical statistics. These data were also gathered from the outpatient population, which, although not definitively healthier, do not include urgent or emergent surgery which patients are more likely to encounter while making these decisions in the inpatient setting.

Often in the United States, healthcare is viewed through the lens of cost. In training, junior physicians are taught the many ways to reduce unnecessary expenses and how to optimize reimbursement. One may argue that has little to do with being a knowledgeable, compassionate doctor; however, caring for patients in the United States requires that a physician is cost-conscious. Many quality improvement projects focus on the goal of eliminating unnecessary expenses because, in order to receive adequate funding, an investigator must demonstrate that a study may generate a profitable return on investment. Seeing as that is the current healthcare framework, aggressive therapy at the end of life can be analyzed in that same paradigm. Again, this is not to suggest that a physician sitting across from a patient at the end of life should be thinking of how to profit – on the contrary, that should be the last thing to come to mind. Fortunately, end-of-life care and cost has been investigated with promising findings for both patients and healthcare administrators. Morrison *et al.* conducted a study comparing outcomes for patients at the end of life who received palliative care consults vs. “usual care”.<sup>11</sup> They found that patients who received consultation and intervention from hospital palliative care teams demonstrated net savings per hospitalization for those discharge alive and

those who died while hospitalized: \$1,696 and \$4,908, respectively. While this is promising from a financial standpoint, viewing the patient holistically is more pertinent to a bioethical approach to end-of-life treatment. There are data from the 2015 Quality of Death Index that suggest that countries that put an emphasis on adequate healthcare funding and palliative care education score better, not just the most financially well-off countries.<sup>12</sup>

A proposed reason for the results above is that the patients who experienced palliative intervention may have, for the first time, had an end-of-life discussion with a provider. These are not easy, and often physicians predict that these conversations will cause mental or emotional anguish, but often the anticipation is more difficult than the conversation itself. Wright *et al.* sought to evaluate the link between end-of-life discussions and patient wellbeing measured by patient mental health, medical care near death, and caregiver bereavement adjustment.<sup>13</sup> Consistent with the more favorable outcomes in the Morrison *et al.* study, Wright *et al.* revealed an association between end-of-life discussions, less aggressive medical care near death, and early hospice referrals.<sup>13</sup> More aggressive care was associated with less favorable quality of life scores and more distress for family. For those that received more aggressive treatment, bereaved caregivers were more likely to develop major depressive disorder approximately a half year after the patient's death. In fact, better quality of life for patients was associated with better quality of life for caregivers as measured subjectively by health, physical functioning, mental health and overall quality of life. These are important findings because in the holistic treatment of a patient, a provider must also focus on the wellbeing of a social support system.

Especially in situations where a patient at the end-of-life is non-verbal or too critically ill to meaningfully respond, the doctor-patient relationship is often transferred to the patient's family or medical proxy. Occasionally, there are no medical cures to offer, so a specific emphasis is placed on transitioning towards a peaceful death for both the patient and the family. The above study noted how simply having end-of-life discussions can improve one's emotional condition after the passing of a loved one. Teno *et al.* demonstrated similar results.<sup>14</sup> While it feels much more normalized now, it was not commonplace for people to die in hospitals or nursing homes until the mid-to-late 20<sup>th</sup> century. Teno *et al.*'s study provide evidence to support that it may be time to reverse this modern trend of dying in hospitals. They found that bereaved family members found home hospice services preferable based on such metrics as overall satisfaction, concerns with care, and unmet patient needs. This is not to say that hospitals and nursing homes are ill-equipped to satisfy the needs of a patient and family. As with many things in society, one may look to the systems surrounding end-of-life care. Funding for nursing homes has been limited while at the same time they are becoming the final places of care for patients. Wright, Morrison, and Teno's studies together imply that the focus of healthcare industries and providers should be more on communication with patients and families rather than intrusive procedures and complicated inpatient medical care. Preemptive discussions can both improve a hospital's bottom line and a patient's (as well as a family's) quality of life.

An unfortunate complication of advanced age and multiple medical comorbidities is malnutrition. There are many reasons why this issue may arise, typically because of dysphagia in general but also head and neck malignancies, decreased consciousness, and

neuromuscular disorders. Many of these conditions increase one's risk of choking (aspiration). For those who cannot meet their nutritional demands by swallowing food and beverage, alternative routes are required. Temporarily (and usually in-hospital), nasogastric tubes are utilized. For those who will need something more long-term, a percutaneous endoscopic gastrostomy (PEG) tube can be used. The goal is to provide adequate nutrition and hydration. Like any procedure, it is not without risks which must be explained carefully to patients and family. A disease related with advanced age such as dementia has a particularly high aspiration risk as the condition progresses. A PEG tube may seem like a logical intervention in that setting, but this may be an instance of losing the big picture. While it may feel like treating complications of an underlying disease, it is important to keep a holistic approach to all patients and in particular those with progressive or terminal illnesses such as dementia. A retrospective trial over 4 years revealed that PEG insertion in patients with dementia did not improve nutritional status, and there were higher rehospitalization and mortality rates when compared with other indications for PEG insertion.<sup>15</sup>

As with any decision, the concepts of autonomy, justice, beneficence, and non-maleficence must be applied. The first is illuminated in discussion with the patient while the final two become more complicated when data reveal that routine interventions do not always yield their intended outcomes. In such instances, recommending against an intervention may best satisfy those principles. Because patients with advanced dementia often have difficulty communicating, a medical proxy will be the decision maker. It is always difficult to make a decision to withhold an intervention, but proxies must know that PEG tubes are not a cure to say the least. They are associated with increased risk of

restraints in nursing homes which may increase agitation, pressure sores, and risk of aspiration.<sup>16</sup> There are also data to suggest that a PEG does little to alleviate suffering as dying patients do not feel suffering when not eating and drinking. However, in the holistic approach, there are more considerations than just medical such as cultural, religious, and spiritual. While a secular, medical approach may dictate that an advanced dementia patient would have no quality or quantity of life benefit, followers of Islam or Judaism place more emphasis on sanctity of life and may be more likely to accept risks if it means not hastening the dying process.<sup>17</sup>

### CHAPTER 3: ADDITIONAL CHALLENGES IN A GLOBAL PANDEMIC

While not a requirement for informed consent and shared decision-making, it cannot be understated the role of family and social support in determining what is best for a patient. These decisions, in the outpatient setting, are less urgent, and a patient has time to discuss with close family, friends, and potentially other healthcare providers. The immediacy of the inpatient setting removes much of this deliberation due to the acuity of the pathology. Up until March 2020 in the United States, a patient's support system could be at bedside or visit providers in person at the hospital for more intimate discussions. With the onset of the novel coronavirus, COVID-19, this option was taken away abruptly and indefinitely. In addition to decision making, this also left patients in isolation in their hospital rooms making the entire hospitalization more emotionally and mentally taxing. Attempts to mitigate the isolating environment of the hospital such as smart phone video calls are helpful, but they do not replace the physical presence of a loved one. When determining the need for advanced, invasive interventions, this represents a new challenge in how to most ethically approach informed consent.

The beginning of the pandemic largely brought uncertainty to the medical profession. Not only the duration of the lockdown, but appropriate therapies, hospital configuration, and procedures offered were equally unclear. This is not to mention the economic and political impacts nearly every individual was experiencing. As cruel as a global pandemic is, it did not slow down the more typical disease processes seen in the hospital before.

An unfortunate phenomenon unfolded at the very beginning of the pandemic: patients were less likely to seek care than they were before for fear of contracting the

novel coronavirus in the hospital. This is not unprecedented: a similar phenomenon was seen in Guinea during the 2014 Ebola outbreak which resulted in higher mortality rates from malaria.<sup>20</sup> Many patients were very vocal about this fact and cited fears of not only infection if hospitalized but even in the emergency department waiting rooms. While their decisions were valid, an urban, underserved population has little room to delay care for many disease states for which patients present. For those not hospitalized for COVID-19, the same issues of shared decision-making and informed consent arose. This time, however, the decision felt much more alone. With the added stress of always possibly becoming infected with COVID-19, invasive procedures usually meant longer hospital stays. This certainly impacted the procedures to which patients consented. Prior to the pandemic, some of this could have later been accomplished in the outpatient setting. With the temporary (but, early in the pandemic, indefinite) suspension of outpatient elective operations, the decision not to go forward with a procedure was essentially declining it altogether. Providers are educated even before they begin to practice on how to communicate most effectively with their patients. In training, physicians learn the art of full and comprehensive informed consent; however, nobody received formal training on how to approach a discussion of a procedure in a pandemic. While physicians often encounter grey areas of medicine and become excellent at adapting, the lack of standardization in this regard could lead to very different outcomes from different providers. Some felt that it was a time to offer more to the patient because it could not be determined when they would be able to return. Patients were faced with more difficult decisions than they had experienced in the past with little in the way of extra guidance or support.

Adding to patient adversity was the coronavirus itself. Hospitalized patients may have been admitted for severe COVID-19 alone or for a more typical medical condition but also happened to be COVID-19 positive. Consequently, they found themselves in stricter isolation than their COVID-19-negative neighbors. Their access to their nurses and physicians was even more limited. At times, patients spoke with their providers over the phone to limit healthcare worker exposure. Overall, there was a noticeable decrease in the amount of communication between patient and provider. A survey conducted in Madrid revealed that there were a variety of different approaches physicians took to treat COVID-19 which had social and clinical variables that influenced choices<sup>18</sup>. Attributes such as perceived self-expertise and perceived quality of publications on COVID-19 were associated with more aggressive care. Infectious disease specialists were associated with less aggressive care possibly due to the recent memory of failed experimental therapies during the SARS outbreak. Many facilities were trialing therapeutics for COVID-19 that little known efficacy such as the antiviral agent, remdesivir, and the transfusion of donor convalescent plasma. The FDA provided an emergency use authorization of both in 2020, and they were quickly implemented in practice. The consent process for each medication was complicated by fear: providers feared that they needed to give everything possible to help their patients, and their patients feared for their lives.

Under more precedented circumstances, medical decision making can still be alarming for patients. They must confront that their bodies are in a disease state, and they must agree to invasive and imperfect procedures. This is not an easy undertaking. The terminology used to describe their own medical conditions can still be alien to a patient even if they make it a point to be very involved in their own care. When a patient is

hospitalized for a COVID-19 infection, and they are presented with the possibility to receive experimental treatment, many things come to mind. First, a survival instinct emerges and colors the mind towards receiving anything that could potentially be beneficial. For those hospitalized after the beginning of October 2020, they likely heard that President Trump was hospitalized for the same thing as they are. Would they not want the same therapeutics as the president of the United States of America? In fact, many patients specifically asked for the same medications after that event because of how the White House represented his hospitalization and made it seem that President Trump received miracle cures. This obscured the facts, but it found its way into many informed consent discussions whether it was verbalized explicitly or not. While not as long lasting as a procedure that modifies one's anatomy or implants into a body such as tracheostomies, percutaneous endoscopic gastrostomy tubes, or an automated cardioverter-defibrillators, there were little data to provide the patient to help guide their decision. Much of the agreement to proceed with the treatments was a shared ignorance of this extraordinary virus and a mutual goal of making someone well.

As mentioned before for those hospitalized for reasons other than COVID-19, there was no family presence in their hospital rooms. The patient was unable to see them, discuss concerns, and come up with what was best; conversely, patients' families were unable to see them in their current state. Often, decisions about medical care are contextualized when seeing a loved one in a hospital bed. Over the phone, outside of the hospital room, or anywhere else except the bedside results in an abstract, theoretical conversation. Especially for those who were admitted to intensive care units and those who otherwise are unable to make decisions for themselves, the perception of a medical

proxy greatly influences the outcome of a decision-making discussion. Providers had to use exceptional descriptive language to illustrate the state of a patient over the phone. They had to prognosticate on a disease process that remains unpredictable. Pediatricians in particular, who are more accustomed to speaking directly with medical proxies, have also found challenging shared decision-making topics including child masking, return to school, etc. with little guidance other than defaulting to general public health ethics.<sup>19</sup> Similarly, providers can return to the basics of a standard consent process and recite what they would have if there were not a global pandemic, but all of these additional factors are unavoidable. The same fear that a patient consenting for himself experiences is shared by that of a medical proxy.

Part of what makes medical decision making through a webcam so difficult is the inherent depersonalization of a two-dimensional digital representation that a digital screen provides. A patient is a human comprised of complex emotions, stories, connections, thoughts, and ideas. The representation of that person on a phone or laptop introduces more atomization of the body: one sees a ventilator entering the oral cavity, a chest tube emerging between ribs, a central venous catheter exiting the base of the neck. A family member on the other end is just a face; there are fewer gestures and body language to interpret, no hand to hold. And this is the best-case scenario as well: it assumes that there are no issues with internet connection or access, no issues with audio transmission or hearing, no conflicting schedules of when the providers are able to chat with the family. There are all barriers that existed before the pandemic; COVID-19 has just exacerbated these disparities.

In urban centers or otherwise, some of the most vulnerable individuals include those residing in nursing homes; they tend to be older and with more comorbidities and, therefore, are more likely to contract severe forms of COVID-19.<sup>20</sup> As of May 2020, nursing home residents represented approximately half of all COVID-19 deaths in the United States.<sup>21</sup> An article in the American Journal of Geriatrics sought to identify characteristics of facilities that were significantly impacted by the pandemic.<sup>21</sup> They found that urban locations, greater percentage of Black residents, and larger facility size were significantly related to having a case of the infection while facility size and for-profit status were significantly related to outbreak size.<sup>21</sup> What one can take from that information is that the most vulnerable of the most vulnerable in our society are the ones at greatest risk. Medical society was underprepared to handle an infectious outbreak such as COVID-19 much less apply principles of health equity and justice in its response.

Not uncommon at the end of a hospitalization is a discharge to a nursing home/extended care facility. Often, those who had prolonged stays, have multiple comorbidities, or who are leaving after surgeries/invasive procedures are those who are referred to extended care. Not surprisingly, these patients frequently comprise the most vulnerable of the community: those with chronic disease, advanced age, and those who require constant skilled care. These centers provide much needed subacute treatment for those who require continued rehabilitation after their hospital needs are met. This is determined in the hospital usually by the evaluation of a physical therapist; after such recommendation, the conversation begins with the patient similar to that of offering a procedure. Some common concerns are cost, duration (away from home in addition to current length-of-stay), and location. On top of these, patients now had to factor in the

global pandemic in their decision. What guidance could a patient have when making this decision? Local and national news programs frequently highlighted outbreaks in nursing homes coloring them broadly in a negative light. Would it be appropriate to forego necessary medical care to avoid such a risk? Patients, especially Black patients in urban centers at safety net hospitals, had an incredibly difficult decision to make in this regard. How well these risks were explained to them objectively is unknown. Those with advanced age may not be the ones deciding this destination. Providers seeking health equity also felt a dilemma: non-maleficence would dictate that they would avoid sending their patients where they might be at higher risk, but beneficence would suggest recommending referral to a long-term care center to meet the patient's health needs. There is no single answer, but ultimately it highlights the lack of national preparation, guidance for physicians, and the crushing oppression of healthcare disparities for marginalized patients.

## CHAPTER 5: CONCLUSION

Speaking with patients regarding the care they will receive at the end of life is a complicated interpersonal engagement often influenced by numerous external factors. Physicians often base decisions off of factors such as the culture at their home institution or physician supply, and these patterns have demonstrably increased the intensity patients – in particular, Medicare patients – receive in the final year of their lives compared to their non-terminal years of life.<sup>22</sup> This occurs despite evidence that both surgeons and elderly patients agree that the priority should be placed on quality of life.<sup>23</sup> Unfortunately, oftentimes patients and surgeons first meet is when addressing an acute problem; rarely do they have an established rapport with mutually understood goals. In addition to being new acquaintances, intraoperative demise is rare, so the risks may be undersold by not explaining the possible complications. Seniors may view the decision to proceed with an operation as life or death which introduces one's religious, spiritual, and moral beliefs into the equation. A patient may not want to make the ultimate decision to forego surgery if the alternative is palliative or hospice, as it may feel as though it is choosing death.<sup>23</sup> The importance of goals of care and comprehensive informed consent discussions cannot be overstated. Providing this to patients is an art that a physician must be dedicated to improving over an entire career. It has been demonstrated that more detailed informed consent increases patient anxiety, yet patients subjectively prefer to receive such specifics.<sup>2</sup>

Interconnected are the principles of informed consent, health literacy, goals of care discussions, patient autonomy, shared decision-making, racial justice, and health equity. Evaluating the way United States medicine handles these complicated situations is

essential for progressing towards a more just society. As a greater proportion of the United States population reaches more advanced age, a focus must be placed on providing a dignified end of life. A blanket solution is obviously not the answer, so making the effort to proactively initiate goals of care discussions with patients should be one of the tenants instilled in students in medical training. As implicit bias training is becoming more widespread, it must be integrated into end-of-life care; there currently are few studies investigating how implicit bias affects end-of-life decision-making between patients and providers.

Medical advances over the last century have brought complicated, life-saving technologies into existence that excite future students to join the field. AICD's, PEG tubes, and surgeries at the end of life do not need to be the standard. Although each can be lifesaving, the big picture perspective must always be utilized to avoid unnecessary suffering. Medical training heavily focuses on what *could* be offered. After a certain amount of experience and exposure to palliative care, a physician may begin to realize that instead focusing on what *should* be done may be more important. This becomes most important as a patient approached the end of life. Patients and their family have to navigate the healthcare system, fight against systemic inequities, and make difficult decisions that may mean a loved one might die sooner (though more peacefully) by foregoing invasive procedures. Obviously, this is further complicated by the fee-for-service model of medical reimbursement that incentivizes doctors to perform procedures in large volume as they are paid for quantity. If medical schools want to boast that they instill holistic principles into their graduates and provide a foundational education in the

social determinants of health, then they should be at the forefront of advocating against our healthcare system as it currently exists.

COVID-19 continues to shine a spotlight on the numerous existing health disparities in the United States, a country that boasts a for-profit, largely employer-based insurance system. The people who already were at greatest risk of worse outcomes due to their skin color, socioeconomic status, geographic location, gender or sexual identity, access to housing, pre-existing conditions, primary language other than English, advanced age, *etc.*, were most painfully impacted. In such a grave global situation, it is important to celebrate accomplishments such as effective vaccines and therapeutics in order to provide motivation to get going; otherwise, the world could become quite bleak. Nevertheless, society must reflect upon the shortcomings of United States healthcare as they were equal features of this pandemic. Additionally, it presents an opportunity to refocus on patients at the end of life. Incorporating proactive communication, palliative care intervention, and comprehensive informed consent will greatly improve the quality of care and dignity of death. There is no guarantee that this will be anyone's final pandemic, so it is imperative to learn from the current obstacles and work towards a more just, equitable future.

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