Chapter 7
COVID-19: Ethical Dilemmas

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The God Committee

While Walter Kolff, a Dutch physician, originally developed kidney dialysis, his procedure for connecting the patient to the dialysis machine presented a challenge for regular use since each artery and vein could only be used once. At Seattle's Swedish Hospital, physician Belding Scribner developed an in-dwelling shunt that could be used indefinitely. The first in the United States, the Swedish Hospital's dialysis unit soon followed. However, the team only had a few machines for long-term dialysis (Jonsen, 2007). At that time, patients diagnosed with renal failure had a limited lifespan. When Swedish Hospital's dialysis unit became known, many more patients sought dialysis than could be treated. Essentially, life-or-death stakes involved two questions: "Who among the various applicants was most deserving of dialysis?" and "Who will we allow to live and who will die?"

To decide who should receive dialysis, the hospital formed a committee. The members were charged with making a decision that would determine who would have a longer life and who would die relatively soon. This decision was not going to be based on medical grounds. Named the "God Committee," by an article in the popular magazine, *Look*, the members would determine and evaluate the "worth" and "deservingness" of each dialysis applicant. While the committee included one physician (a surgeon) the other members did not have a medical background—a minister, "housewife," banker, state government official, labor leader, and lawyer. After establishing that children and anyone over age 45 were not candidates, the committee developed a list of the dimensions to make decisions. In addition to age, sex, marital status, number of dependents, income, net worth, emotional stability,

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educational background, occupation, and "future potential" were considered as relevant dimensions. The committee also accepted outside information in the form of letters of recommendation on behalf of specific patients. The discussion of social worth and the perspectives taken by members with varying backgrounds led to some intriguing exchanges:

Surgeon: How do the rest of you feel about Number Three—the small businessman with three children? I am impressed that his doctor took special pains to mention that this man is active in church work; this is an indication to me of character and moral strength.

Lawyer: It would also help him endure a lingering death…

Minister: Perhaps one man is more active in church work than another because he belongs to a more vibrant church.

Labor Leader: For the children's sake, we've got to reckon with the surviving parent's opportunity to remarry. A woman with three children has a better chance to find a new husband than a very young widow with six children (Levine, 2009, p. 1).

In the United States, explicit rationing of healthcare resources is rare, except for organ transplantation. However, during COVID-19, criteria were developed by many hospitals to determine which patients would and would not receive intensive care unit treatment as well as artificial ventilation. Because of time urgency and other factors, deliberations were not as extensive as those of the Seattle "God Committee." However, deciding which patients would receive limited resources became a significant moral dilemma.

Overview of Ethical Models in Health Care

Ethical issues came to the forefront with COVID-19 from the pandemic's beginning. Moral questions around the restriction of individual liberties through social distancing and lockdowns and even requirements for mask-wearing immediately raised conflicts—particularly in countries with cultural norms valuing individualism over collectivism. Other more difficult issues arose as the number of severe cases escalated. Rationing intensive care unit beds and ventilators became necessary. Specific algorithms were developed for decision-making in these dilemmas. However, issues of social worth, like those that confronted the "God Committee," crept into decision-making. Dimensions such as the patient's age and health status were included in determining who would receive more aggressive care.

However, before examining the moral dilemmas that arose during the pandemic, it is helpful to understand the philosophical theories employed in biomedicine and public health. While not exhaustive, a brief overview of deontology, utilitarianism, principlism, virtue ethics, libertarianism, and communitarianism follows. These models of moral decision-making often explicitly or implicitly guided moral choices arising during the pandemic.

Deontology

Associated with the philosopher Immanuel Kant (1724–1804), deontology emphasizes Duty—our behavior toward others is rooted in our obligations. There are a priori standards for a profession. These standards do not change with the circumstances of a human dilemma. An essential Kantian concept is that of the categorical imperative–moral absolutes that exist apart from the social context and laws. Principled actions are inherently good apart from their consequences. While there may be situations in which some would say telling a "white lie" to preserve someone's feelings, is permissible and even desirable, deontologists argue that lying alone is immoral despite the good that may come from it. Instead of the ends justifying the means, the Kantian worldview holds that the context-based motivation for an act is irrelevant. Certain acts are unacceptable--regardless of the circumstances.

Kantians also believe that people have inherent worth and that humans should never serve as a means to an end. This principle is raised when a patient suffering "brain death" is viewed as a source of organs that would benefit other patients.

Garbutt and Davies (2011), in their analysis of Britain's National Health Service, note that the General Medical Council's standards for practice begin with this dictum: "You must take care of the patient [as] your first concern" (p. 1). By implication, economics and limited health care resources should not interfere with this duty. Furthermore, Kantian moral absolutes are present in virtue-based models such as the Hippocratic Oath (e.g., "Into whatever home I go, I will enter them for the benefit of the sick, avoiding any voluntary act of impropriety or corruption"). Britain's National Health Service, which includes an ongoing tension between cost and patient care, illustrates how deontology can conflict with consequentialist or utilitarian values.

Utilitarianism

Based upon the work of Jeremy Bentham (1748–1832) and John Stuart Mill (1806–1873), utilitarianism prioritizes the outcome or consequences of actions rather than the acts themselves. Utilitarianism holds that the correct moral choice is the one that provides the greatest good for the greatest number of people. When there is a conflict between society and individual patient well-being, the utilitarian perspective typically holds that the community's well-being takes precedence. While Kantian ethics argues that specific actions are inherently moral, utilitarian ethics is considered consequentialist and outcome-focused rather than principle-focused.

While generally considered a moral philosophy governing health at the social or community level, utilitarianism has been applied to ethical dilemmas involving individual patients. A Kantian categorical imperative would be that lying to a patient is unacceptable. However, recent discussions in dementia care include the practice of therapeutic lying—justified by utilitarian reasoning. Research suggests that some residential care staff engage in therapeutic dishonesty to prevent emotional distress or aggression from older residents with neurocognitive impairment. For example, one staff member provided the following example: “there is one particular woman (resident) here who wants to run away all the time. You settle her down by telling her that the trains are on strike” (Tuckett, 2012, p. 6). Another example that may be more morally troubling to a Kantian is: “the wife was in a severe car accident and the husband… (Our resident)… We weren’t allowed to tell them what happened to his wife. The resident has dementia… I told him his wife is having a rest and shall be up later in the day and she’s just phoned and she’s running late… This had calmed him down and eased his mind that his wife hasn’t left him or doesn’t love him anymore” (p. 8).

As noted above, even for physicians affiliated with a system rationing care before the pandemic, providing patient-centered care while following Britain’s National Health Service (NHS) guidelines generated moral dilemmas (Jeffrey, 2020). With the NHS as an example, utilitarians would assert that the maintenance of the system itself is a high priority. However, if resources are not used judiciously within the stewardship framework, Britain’s government-provided health care system is at risk. Periodically, new strategies for preventing insolvency are attempted. For example, since hospital-based care is significantly more expensive than outpatient clinical care, utilitarian logic would discourage inpatient admissions. Garbutt and Davies (2011) provide the short-lived, fiscally driven NHS innovation of paying general practitioners bonuses for not referring patients to the hospital. As noted above, a patient’s age has been a criterion in some countries for determining the level of care for COVID-19. The NHS has, for some time, used age for determining some therapies. The NHS website for patients who are candidates for dialysis indicates that someone who is in their 20s when they begin dialysis can expect to live 20 more years; however, for those over 75 who start dialysis, the site indicates that their life may be prolonged for only 2–3 years.

Garbutt and Davies (2011) note that deontological principles centering on a clinician’s duty to patients may conflict with the fiscal and policy objectives of the NHS itself. They note that the physician-centered General Medical Councils’ standards emphasize the physician’s responsibility while providing minimal guidance when the unavailability of resources prevents the physician from carrying out their duty to the patient.

Threats to the survival of the NHS were one factor leading to the establishment of the National Institute for Clinical Excellence (NICE). A significant dimension NICE uses in developing clinical recommendations is the consequence of various treatments. Utilitarianism accepts that healthcare resources are inherently limited and that some sort of system, such as rationing, will be necessary to achieve maximal benefit to society. The combination of consequences—in the form of clinical outcome and cost—guides utilitarianism. While not typically advertised by utilitarian adherents, some fatalities are accepted if the process benefits the public good. For example, some vaccines have a very low probability of causing illness or may lead to death in very few extreme cases. Since the vaccines save many lives, from a utilitarian perspective, these highly infrequent deaths are morally acceptable.

In health care, utilitarian values have been quantified as Quality Adjusted Life Years (QALYs). This index is used by NICE and the Canadian Agency for Drugs and Technologies in Health (Vaillancourt, 2020). QALYS are reported in years and reflect the overall health of specific individuals. So, for example, gaining one extra year of life while suffering from severe Chronic Obstructive Pulmonary Disease (COPD) is worth less than one additional year without health-related limitations (Vaillancourt, 2020). However, the QALYs approach can lead to morally disturbing conclusions. For intensive care units, during the pandemic, older adults and those with comorbid medical conditions were more likely to have fewer QALYs. This result occurs because even if these more senior, sicker patients survived, they would have a briefer lifespan compounded by chronic health problems such as Type II diabetes. In some instances, this constellation of factors would lead to palliative care only.

When applied on a population level to people living through the COVID-19 pandemic, utilitarians would also include other costs—increased rates of domestic violence or limited educational progress among children and adolescents. However, factors associated with the pandemic possibly prolonging life are reduced traffic-related injuries and deaths and fewer severe asthma episodes due to reduced air pollution. During the pandemic, non-COVID illnesses were de-prioritized in terms of treatment. Gheorghe et al. (2021) quantified the number of QALYs lost, due to COVID-related delays in cancer treatment. In England, it was estimated that there would be 3620 avoidable cancer deaths equating to 32,700 QALYs, which the investigators indicate is likely to be a significant underestimate.

Principlism

Principlism is the most commonly taught and applied medical ethics model in the United States and in much of the Global North. In developing this model, Beauchamp and Childress (2009) examined existing philosophical approaches to ethical dilemmas in medicine and distilled them into four fundamental principles: autonomy, beneficence, nonmaleficence, and justice. Principlism, sometimes referred to as "the four principles," is primarily applied to individual clinical cases, although public health has recently combined principlism with utilitarianism (Vearrier & Henderson, 2021). The first three dimensions are most relevant in clinical situations; the fourth dimension, justice, is usually the principle that is minimized in most patient-centered analyses. In addition, however, justice is relevant to issues such as fairness in allocating treatment.

Autonomy includes the concept of personal independence and self-determination—the ability to exert control over essential decisions impacting one's life. Autonomy also "umbrellas" the concept of informed consent. One cannot make truly autonomous decisions without adequate knowledge. Patient autonomy is violated or compromised when individuals have not been given all relevant information about a medical decision or are unable to cognitively retain and assimilate information and apply it to their current health circumstances. Examples of the emphasis on patient autonomy include passing legislation in multiple U.S. states and other countries allowing premature physician-assisted death upon patient request. In addition, developing advanced planning documents allows one's wishes to be expressed when the patient can no longer do so.

Nonmaleficence is best summed up with the mandate "do not harm." Beneficence has been interpreted as the duty to treat patients only with interventions with a reasonable likelihood of benefit.

A significant criticism of Beauchamp and Childress' presentation of principlism is that the four principles have equal weight and have no priority. This issue becomes a problem in clinical situations in which the principles conflict with one another. When those conflicts arise, there is no logical system to resolve these contradictions. For example, concerning issues such as COVID-19 vaccine allocation or decision-making about which patient should receive ventilator support when the number of ventilators is limited, the principles of justice, nonmaleficence, and beneficence have conflicted.

Furthermore, many commentators have indicated that the four principles are, in reality, not equally weighted in decision-making and that patient autonomy is "first among equals" (Gillon, 2003). While Beauchamp and Childress (2009), the major proponents of principlism, assert equality among the principles, a perusal of legal rulings and cases addressed by hospital ethics committees finds that patient autonomy is a common nexus of conflict. In the Global North, autonomy is equated with patient choice, self-determination, and non-interference (Saad, 2018). It has been argued that autonomy has moved away from the well-being of someone who is ill to a requirement that patients have a wide array of treatment options to consider. Saad (2018) also argues that, as a result, beneficence and nonmaleficence have been pushed to the side. The emphasis on autonomy has elicited considerable social discord during COVID-19. The government regulations requiring mask wearing, social distancing, and vaccine passports have been seen as intrusions upon individual self-determination. This assumption of equality among the principles also becomes questionable in recent bioethical cases, such as patients with psychiatric conditions and no life-threatening illness requesting physician-assisted death (Evenblij et al., 2019).

The weakness of principlism, the absence of a system to resolve differences between competing principles, is also one of its assets. This flexibility allows these four principles to readily adapt to morally based medical dilemmas arising internationally and cross-culturally (Gillon, 2003).

Virtue Ethics

Bellazzi and Boyneburgk (2020) define virtue as a "…disposition that enables us to perceive, feel, want and act in certain ways" (p. 4). Virtue ethics, exemplified by the Hippocratic Oath and more recently by Thomasma and Pellegrino, shares some similarities with deontology in that it focuses on enduring internalized guidelines. As in the Hippocratic Oath, the physician's moral character is the vehicle for ethical conduct. In contemporary medicine, the Oath has often been reduced to "first do no harm," even though Hippocrates did not write this famous phrase as part of the Oath. Hippocrates did indicate that a virtuous physician in treating patients would "…do not harm or injustice to them…." Concerning assisting in an expedited death at the end of life, the Hippocratic Oath states, "I will not give a deadly drug to anyone if I am asked nor will I advise such a plan…."

In a perspective given increasing attention in U.S. medical education, Thomasma and Pellegrino (Thomasma, 1990) describe the characteristics of a morally good health care provider. These qualities include competence, compassion, fidelity, prudence, integrity, respect, and self-effacement. In addition, the physician's fiduciary duty (fidelity) to the patient is an overarching principle. While patient autonomy is recognized, health care professionals have a moral responsibility to be prudent—to offer treatments that are established as effective. Finally, a "meta" virtue is phronesis—a type of wisdom. Phronesis sits at the nexus between the physician's formal knowledge and scientific knowledge, as well as between the provider's clinical expertise and 1:1 interaction with the patient (Hoffmann, 2002).

Justice as Fairness

The philosopher, John Rawls, provided what some might call a "limited domain" ethical theory. Rawls focuses specifically on distributive justice. His model was given considerable attention during the pandemic. Rawls' theory was applied to rationing, limited health care resources, and demographic groups that might be prioritized for receiving the vaccine. His veil of ignorance is a philosophical thought experiment in which the audience is asked to imagine a situation in which a society with formal rules, laws, and expectations has not yet developed. None of those in the community have yet to be in an established social position or status. Rawls called this the original position. However, there are a limited number of goods, but to ensure fairness, these goods are distributed by someone behind "a veil of ignorance." Because of the veil, these goods would be distributed without knowledge of the recipients' characteristics. With the veil of ignorance as a basis, everyone is guaranteed a certain level of rights and liberties and is considered equal. Additionally, everyone will be receive an equal distribution of educational and employment opportunities so all can have "the same basis for competing for subsequent positions." At this point, Rawls' theory would suggest that for rationing ventilators in a hospital, a lottery, or first come, first served standard would be appropriate (White & Lo, 2021).

From the perspective of justice universal healthcare and guaranteed annual income, everyone is guaranteed a baseline level of goods and services to pursue their specific values of a "good life" and maintain dignity and self-respect. When it comes to inequalities, however, in a Rawlsian analysis, they are permissible only when a decision would benefit those who are the least advantaged (Rawls, 2001). Those with the least must be better off than they would in any alternative system of distribution of goods and services (Goldberg, 2017). However, Rawls disagrees that following these guidelines would eliminate inequality (Goldberg, 2017). Rawls emphasizes the ability to pursue interests or opportunities rather than a quota of income, goods, services, and education. While Rawls' "ideal" society has never been achieved, the closest approximation would be the Scandinavian societies in the 1970s. All are guaranteed quality education and income support, so those unemployed or unable to work can live comfortably, and good quality housing is available. These countries are all social democracies. They have very high taxes, with the wealthy bearing a disproportionate burden of taxation. While inequalities and income disparities remain, these differences are not as extreme as those in the United States.

Ethical Theory Applied to COVID-19's Moral Dilemmas

Ethics in public health have not received nearly as much attention as ethical models dealing with clinical dilemmas. The deontological duty of health care providers, their virtue of fidelity to patients, and the value of promoting autonomy within the context of beneficence and nonmaleficence cause substantial cognitive and emotional dissonance when patients' care is restricted so that other patients who are more deserving of treatment can receive it. The psychological distress associated with these morally charged decisions is likely a factor contributing to the high prevalence of significant psychiatric symptoms among up to 50% of health care workers during the COVID pandemic (Young et al., 2021).

Among ethicists, health care policymakers, and providers, explicit guidelines denying care to specific patients (White & Lo, 2021) have raised considerable controversy. Particularly in countries such as the United States, where patient autonomy is highly valued, patients must give informed consent to any limitations on their treatment. In terms of end-of-life care, patients have been able to receive treatments that have a low probability of success and that some would consider futile. As evident from the ethical models, COVID-19 presents significant moral dilemmas centering around a long tradition of individually focused patient-centered healthcare conflicting with crisis-centered utilitarianism. In addition, in countries such as the United States, with the strong emphasis on autonomy and individual rights, historically, the degree of social solidarity that would enable ready acceptance and enactment of policies that temporarily reduce individual liberties such as stay-at-home orders, masking, social distancing, and proof of vaccination requirements has not been present.

The preeminent ethical model for public health is utilitarianism. By definition, utilitarianism addresses collective well-being rather than individual health. Utilitarianism accepts that some lives may be lost, which is acceptable if more lives are saved. Ethical decisions guided by utilitarian Ethics are more likely to be situational. For example, in protocols for rationing ventilators for COVID patients, one of the guidelines is to continue to re-evaluate whether a patient is benefiting from ventilation and whether or not there are patients who might benefit more (Rosenbaum, 2020).

Health care professionals have ethical codes that are deontological in nature. They specify the duties and moral responsibilities that should be followed—typically with little exception. The fiduciary responsibility of patients is not altered by situational factors such as limited resources. The ethical principle of patient autonomy is also a moral absolute. Indeed, variations on virtue ethics, such as those of Pellegrino and Thomasma, emphasize that the physician's role is to maximize patient autonomy (Pellegrino, 1994).

COVID-19 and Hybrid Ethics

The COVID -19 pandemic has brought together clinicians and public health officials guided by distinct ethical principles. The pandemic has challenged ethicists and practitioners to find a middle ground. Vearrier and Henderson (2021) describe combining Beauchamp and Childress' four principles with utilitarianism. Verrier and Henderson (2021) describe utilitarian principlism as a framework in which "… autonomy transitions from individualistic to relational, nonmaleficence tolerates a 'learn as we go mentality,' beneficence seeks population health and justice takes on a more important role …" (p. 46). They note that some policies and practices adopted during COVID-19 could be framed as acts of beneficence. For example, working longer hours, allowing providers to care for patients outside their typical scope of practice, being quickly retrained in the knowledge and skills required to provide care to COVID patients, and being permitted to practice across state lines in the United States. All of these changes, while consistent with public health's crisis utilitarianism, are also consistent with health care providers' value of beneficence (Vearrier & Henderson, 2021).

In the United States, the emphasis on patient autonomy coincides with a consumer orientation in seeking health care. These values are exemplified in end-of-life care, where patients or their designee's request to provide active treatment has historically been honored even when it is unlikely to be successful (Searight, 2019). During public health crises such as COVID-19, placing some parameters around this unbridled autonomy is appropriate (Vearrier & Henderson, 2021), as is the case in the United Kingdom (Dzeng et al., 2015). Similarly, over the past several decades, patients have requested specific medications they have seen online or in other media. During COVID-19, this consumer orientation has led patients to request prescriptions for ineffective and possibly harmful drugs such as hydroxychloroquine sulfate.

Autonomy, in its extreme version of a self-contained individual acting for their well-being without constraint, is unrealistic and questionably moral. The boundaries of individual independence occur when personal freedom infringes on another's ability to be self-determined (Jeffrey, 2020). To optimize unique well-being during the pandemic, relational autonomy is necessary and involves a change from a focus on "the individual self to one embedded in a social context" (Jeffrey, 2020, p. 496). In the context of the COVID-19 pandemic, this relational self values social solidarity—a shared purpose. In the case of COVID-19, this collective purpose is to enhance the population's overall survival (Jeffrey, 2020). National leaders often emphasize the principle of "We are all in this together." Often, a country's history is invoked to elicit unity. Queen Elizabeth's televised address about COVID-19 opened with an acknowledgment of the disruptions and deaths the pandemic had caused. She then praised essential frontline workers carrying out their duties "in support of us all…" In addition, Queen Elizabeth mentioned the sacrifice of World War II when children were sent to the countryside from London, reminding British citizens that they had overcome adversity in the past through their collective efforts. She then thanked those who were remaining in their homes "to protect the vulnerable." With social solidarity as a moral value, there is an agreed-upon commitment to assist the most vulnerable members of society (Jeffrey, 2020). As in Queen Elisabeth's COVID-19 speech, restrictions such as quarantine, lockdowns, mask-wearing, and social distancing, while consistent with utilitarianism, have, in the context of solidary, been framed as voluntary, altruistic acts (Hayry, 2022) directed to a common enemy. The Vietnamese government effectively generated solidary by characterizing COVID-19 as a war. Precautionary measures such as social distancing and obeying stay-at-home orders were acts of patriotism. A popular poster conveyed, "to stay home is to love your country" (Le, 2020; cited in Ivic, 2020).

However, the principle of reciprocity is related to, yet distinct from, utilitarianism. In keeping with social solidarity in the context of relational autonomy, when regulations diminish freedom, there is a corresponding responsibility to offer support for the sacrifice of complying with restrictions to benefit the social good. When additional burdens are placed on individuals, the principle of reciprocity should be activated (Gozum et al., 2021).

During Wuhan, China's, extended lockdown, mutual aid societies of volunteers assisted with providing food, helping migrant workers with housing, and delivering supplies. These actions were through an informal network—generally communicating through social media (Ni et al., 2020). Some of these aid societies were established by citizens during the pandemic—the aid societies filled in the gaps left by the government's efforts. A study in Japan found that higher levels of reciprocity and trust in the government were associated with fewer COVID deaths (Murayama et al., 2021).

The author (HRS), a university professor, observed several examples of policies reflecting reciprocity. At the university where I teach, when students were sent home from the university in early March 2020, all classes switched abruptly to an online distance format. Many classes were recorded so students could watch them on their schedule. Students were also allowed to take all their classes pass-fail rather than requiring a letter grade. Another example was that local bars were able to serve drinks for carry-out, and some even delivered. National governments also followed the principle of reciprocity with monetary grants. Monetary grants from the governments of Japan, Germany, Britain, and the United States provided direct support to individuals as well as small businesses. In some countries, government funds were associated with a contingency. For example, in the Czech Republic, small business owners who had children not attending school because of the pandemic could receive a stipend from a specific government fund (Akbulaev et al., 2020).

In the following sections, specific moral dilemmas raised by COVID-19 will be examined from the perspective of various ethical theories.

Rationing Care During COVID-19: Guidelines

For many healthcare providers, the most distressing moral conflicts arose from the need to ration treatments that would permit some patients to survive, leaving others to die from COVID-related illness.

The Rationing Algorithm

The rapid increase in acutely ill COVID-19 patients during the surge that occurred in mid to late February 2020 was closely monitored worldwide. American medical journals published several articles on how the Italian healthcare community responded (e.g., Grasselli et al., 2020). Based on projections, it soon became apparent that the number of patients in some U.S. cities would exceed available capacity. At healthcare centers such as New York's Bellevue Hospital, it soon became clear that the number of patients requiring care for COVID-related respiratory illness would exceed the number of intensive care unit beds and the number of ventilators (Filardo et al., 2020). Protocols for rationing care would be needed. In the United Kingdom, treatment allocation protocols, through NICE, which established guidelines for the use of interventions such as dialysis, had been in place for some time. However, in the United States, with the possible exception of transplantation (which uses a prioritization system), guidelines designating which patients do and do not receive treatment did not have an established history. Unlike European countries, which have a history of explicit or implicit rationing based on the physician's judgment of the likelihood of patient survival, U.S. health care leaves many decisions about treatment—particularly when suffering a potentially terminal illness—largely up to patients (Hurst, 2008). The United States allows patients to request healthcare interventions like cardiopulmonary resuscitation (CPR) that have a limited probability of success (Searight, 2019).

In Italy, the Italian Society of Anesthesia, Analgesia, Resuscitation, and Intensive Care (SIAARTI) published general guidelines for rationing medical equipment and levels of intervention specific to the COVID-19 pandemic. The underlying (utilitarian) principles were that treatment should be allocated based on the likelihood of patient survival and life expectancy (Craxi et al., 2020):

1. When the availability of resources is overwhelmed by their need, a decision to deny access to one or more life-sustaining therapies solely based on distributive justice may ultimately be justified.
2. Criteria for allocation should be flexible and adapted locally in response to available resources, the potential for patient transfer, and the ongoing or foreseen number of admissions.
3. An age limit for admission to the ICU may ultimately need to be set.
4. Together with age, the comorbidities and functional status of any critically ill patient should be carefully evaluated.
5. Every admission to the ICU should be considered and communicated as an "ICU trial." The appropriateness of life-sustaining treatments should be re-evaluated daily (Craxi et al., 2020, p. 327).

The British Medical Association explicitly addressed the conflict between utilitarian decision-making and physicians' deontological duty to the patient: "… If there is radically reduced capacity to meet all serious health needs, it is both lawful and ethical for a doctor, following appropriate prioritization policies, to refuse someone potentially life-saving treatment where someone else is expected to benefit more from the available treatment" (BMA, 2020 cited in Antova, 2021, p. 99).

In the United States, White and Lo (2020) developed a set of rationing criteria with accompanying numerical values. To address the principle of saving lives, they recommended adapting an existing system, the Sequential Organ Failure Assessment (SOFA) score, which has been shown to predict mortality among patients in hospital intensive care units. The SOFA score is based on clinical and laboratory data reflecting the functioning of six organ systems: respiratory, coagulatory (platelet counts), liver, cardiovascular, renal, and neurologic (Jones et al., 2009). Patients are given a score from one to four for each organ system.

In White and Lo's (2020) system for making COVID-19 treatment decisions, values were converted to scores ranging from one to four, with high scores indicating more significant organ dysfunction (e.g., a SOFA value of 12 or above corresponds to a score of 4). A second dimension is one where scores are assigned based on prognosis expressed in life years. There are only two scorable categories for this dimension which assumes successful treatment of the current acute illness—death within 5 years receives two points and death within 1 year, four points. The White and Lo (2020a) system yields scores ranging from one to eight. Patients receiving lower scores are judged to have a greater likelihood of survival.

White and Lo (2020a) included further prioritization principles. Priority in allocating scarce resources is given to essential workers in public health emergencies. White and Lo (2020a) defined "essential workers" as "…individuals who play a critical role in the chain of treating patients and maintaining societal order" (p. 7). They also prioritize younger people over older adults. They suggest the following categories for using age as a criterion: 12–40, ages 41–60, ages 61–75, and older than 75 (White & Lo, 2020a).

Ethical Problems with Medical Care Rationing Protocols

Age

Following an upsurge in COVID-19 cases, some European countries established age as a factor in determining who should receive mechanical ventilation. From the perspective of QALYS, a 25-year-old who is successfully treated for COVID-19 is likely to have a longer lifespan with better quality than a 75-year-old who has successfully been treated. The Swiss adopted an age cutoff of 85 for ventilation. In Italy, healthcare professionals were notified that they might need to use age as a criterion for limiting care. In Spain, there was some regional variation in treatment allocation policies. However, Spanish hospitals established a tentative age limit of 80 years, anyone over 80 years would not receive advanced life support, and those between 70 and 80 years old with moderate to severe comorbidities would probably not receive advanced life support (Herreros et al., 2020). In Great Britain, the NICE developed a COVID-19 decision support tool for NHS clinicians that included scores on multiple dimensions associated with a patient's potential survival with and without hospital treatment. For example, in the NICE algorithm, anyone over 70 was given "borderline" status for intensive care unit treatment. The United States has used age as a criterion for lung transplantation (Egan et al., 2006), but this argument has been contested. In the context of the pandemic, the U.S. Office of Civil Rights determined that age as a criterion for medical care was discriminatory (U.S. Department of Health and Human Services, 2020). The use of QALYs or assigning points based on a patient's anticipated lifespan has also been questioned since the ability to accurately predict long-term life expectancy is limited (Farrell et al., 2020).

During the lockdown and isolation of the Uusimaa region in Finland, it was recognized that older community members would be at higher risk for contracting COVID and dying. Many of these older individuals had summer homes outside of the isolated region. However, they were not permitted to move temporarily under the provincial lockdown. Doing so would have disrupted the containment strategy used by the government. However, it was noted that the decree which sealed off the region did not include protective measures for those at risk, such as the elderly. Indeed, this practice of isolation was seen as compromising that region's residents' lives to protect the rest of Finland—again, a practical strategy (Scheinin, 2020). There is evidence that immediately before the isolation of Uusimaa, many Finns left urban areas for regions that are "…well-known for seasonal residence" (Willberg et al., 2021, p. 11). This practice, in turn, was predicted to spread the virus (Willberg et al., 2021) and counter government efforts for geographic containment.

The “fair innings” principle has been invoked to support the use of age as a basis for rationing health. According to Farrell et al. (2020), the fair innings standard refers to the fact that young adults have not yet experienced many of life’s meaningful developmental milestones (getting married, having a family, establishing a career, owning a home). Those who have achieved these milestones are typically older and have already lived fulfilling lives. With all other factors equal, the standard would lead to intensive care unit beds and ventilators being given to the younger patient (Farrell et al., 2020). However, critics of the measures argue that “fair innings” implicitly provide more value to earlier than later stages of life.

An age-related argument invoked when vaccine supplies were limited implied that older adults were less likely to make valuable contributions to society. Since older adults were less likely to work in essential capacities and would not be as readily exposed to COVID-19, this line of reasoning would place them lower on the list for receiving vaccinations. However, in addition to raising questions about “productivity” being a standard for social worth, Farrell et al. (2020) also point out that close to 20% of people 65 years and older are primary caregivers for children and adolescents—a role that many would consider “essential.”

To those who argue that since younger adults are in overall better health and less likely to have chronic medical conditions, deontologists would raise the principle of the inherent worth of human life. Kant would counter the ageist argument with his categorical imperative that even when affected by cardiovascular disease or type II diabetes, no one’s life is more valuable than another person’s. Finally, perceptions of age are culturally relative. In sub-Saharan Africa, Ubuntu’s ethical model asserts that the most valued people demonstrate the highest levels of “character” (Cordeiro-Rodrigues & Ewuoso, 2022)—a quality acquired through age. Most adults over 65 in this African region reside in multi-generational households and are still employed and sharing income with extended family (Jecker, 2021). Ubuntu, as a practical philosophy, values “moral excellence,” which emerges in the context of an extended relationship network. This perspective would elevate an elder relative’s moral worth relative to younger adults (Cordeiro-Rodrigues & Ewuoso, 2022).

Health and Functional Status

Health, functional status, age, and disability status are unlikely to be completely independent. However, these criteria will be examined separately based on the response to the White and Lo criteria (2020a) and the use of functional status and health status as independent factors in many countries, such as the United Kingdom.

Frailty Indices

Frailty is a standard dimension used in assessing older adults. The emphasis is on how health impacts daily functioning. The most commonly used index is the Clinical Frailty Scale (CFS) that yields scores ranging from 1 (very fit) to 8 (terminally ill). The British agency, NICE, which encourages the use of the CFS with hospitalized and acutely ill older adults, suggests that the rating provides an index of patient resilience and helps assess whether the patient is likely to return to their pre-morbid level of functioning (Pranata et al., 2021) after resolution of their illness. While judgments of long-term prognoses for patients are not exceptionally reliable, a meta-analysis of CFS studies with COVID-19 patients concluded that each 1-point increase in frailty score was associated with a 12% increase in mortality (Pranata et al., 2021).

NICE included the CFS in algorithms for determining the appropriateness of ventilator support in COVID-19. Other countries, including Germany and Italy, used the patient's functional status and comorbid medical conditions as criteria (Jobges et al., 2020) for COVID-19 treatment allocation. Belgium considered the patient's cognitive status (Sarmento et al., 2022). Patients with a pattern of permanent or likely declining cognitive function were less likely to receive mechanical ventilation.

Frailty status has been shown to overlap with several diagnoses. Patients with more comorbid medical conditions score higher on the frailty scale. In COVID-19 patients, the Frailty Index predicts poor outcomes (Bellelli et al., 2020) and mortality among patients over age 65. However, some studies have suggested that the CFS has limited predictive value both for short-term prognosis and mortality.

NICE includes several caveats about the use of the Frailty Index. The scale should not be used in isolation from other patient information for making clinical judgments, and NICE does not recommend relying on the frailty index with patients under age 65 (Sablerolles et al., 2021). Clinicians are also cautioned about using the scale with persons with long-term physical disabilities such as cerebral palsy or those with cognitive problems.

Frailty scales should be used with caution when applied to atypical populations. Among persons with intellectual disabilities, the clinical frailty scale was questionably appropriate. Festen et al. (2021) found that nearly 75% of a sample of adults with intellectual disabilities were incorrectly determined to be too frail for a good outcome with life support.

Utilitarians would support the practice of ratings such as the CFS that can predict the level of disability after acute COVID illness resolves. Having a standardized assessment of functional status to determine the receipt of life support can be seen as consistent with the virtue of prudent health care with several caveats. First, the instrument must have established reliability and validity in the population to which it is applied. Second, the use of functional status ratings as part of decision-making for COVID-19-related treatment may be questionable with younger patients and those with long-standing physical or cognitive disabilities. Finally, scales such as the CFS should only be used in a holistic assessment process.

Disability Status and "Ableist" Bias

COVID-19 has led to persons with disabilities experiencing significant disruptions in services needed to maintain functioning at home and in the community. As a result of lockdowns and stay-at-home orders, some social service agencies contracted to assist persons with disabilities temporarily ceased operations. This reduction in pre-existing services was criticized as discrimination (Antova, 2020). In some locales, the pandemic triggered a shift in the criteria for determining eligibility for disability-related support services. With the implementation of the more demanding crisis standards of care, persons with long-standing disabilities were, in some instances, judged ineligible for benefits according to new, likely more stringent, standards of impairment and need—moderate, substantial, or critical (Antova, 2020). For example, persons previously receiving home health services or wheelchair assistance may not meet the new crisis standards of service need (Antova, 2020).

When persons with pre-existing disabilities develop COVID and require hospitalization, many treatment allocation guidelines directly or indirectly discriminate against them. Bagenstos (2020), in reviewing U.S. state policies for crisis standards of care in the context of the pandemic, found several instances of extreme ableism. He notes that before action by the DHHS Office for Civil Rights, Alabama's policy was that ventilators could be withheld from persons with intellectual disabilities. Washington State's guidelines also directly stated that younger, healthy individuals should receive ventilator support preferentially over older, "chronically debilitated" persons (Bagenstos, 2020, p. 2).

A variation on QALYs, the Disability Adjusted Life Years (DALYs) index combines the years lost due to premature death and the future years of life adjusted for the intensity and duration of physical or mental disability (Rushby & Hanson, 2001). Each year someone who lives with a disability such as visual or hearing impairment or physical condition restricting mobility would receive a lower score compared to a "typical" person (Andrews et al., 2021). DALYs are reported at the population level. For example, in comparing multiple causes of disease and injury in Scotland, during 2020, COVID-19 was responsible for an estimated 90,500 to 108,200 DALYS—second only to ischemic heart disease (Wyper et al., 2022). However, the perspective or benchmark of DALYs is that of a person without a disability. Typical individuals, not having the subjective life experience of someone with a disability, render the use of DALYs for treatment allocation highly questionable (Andrews et al., 2021). Deontologists would raise serious concerns about any system that denotes that one person's life is worth less than another.

Unfortunately, persons with preexisting disabilities are caught in the net of utilitarian criteria for allocating care. As noted above, to return to their previous level of functioning. Antova (2020) points out that this is a definition based upon the elderly and has limitations in adapting to younger people with chronic physical disabilities. From the perspective of disability rights, these criteria reflect ableism, the notion of an idealized view of how people should physically and cognitively function (Antova, 2020). Rather than a functional level, an alternative, yet still utilitarian, approach would be prioritization based on the most beneficial criterion. In this context, "beneficial" could mean those most likely to remain alive to hospital discharge. One could still use these criteria with persons with pre-existing disabilities, and it is argued that it may be less discriminatory. Another less biased strategy for treatment allocation would be the use of a lottery (Andrews et al., 2021). This strategy would treat all lives equally without any implications of social worth.

Comorbid Medical Conditions

Comorbid health conditions have been widely used for decision-making for admitting acutely ill patients with COVID-19 to intensive care units and providing them with mechanical ventilation. Internationally, data on COVID-19 and comorbidities shows considerable variation across countries. The percentage of COVID-19 patients without comorbid medical conditions in South Korea, Wuhan, China, and Denmark ranged from 33.1% to 76.3% to 65%, respectively, compared with the United States at 27.4% (Kim et al., 2021). A numerical measure of comorbidity employed in assessing patients with COVID-19 is the Charlson Comorbity Index (CCI; Charlson et al., 1987). The Charlson Comorbidity Index assigns point values to each diagnosis on a list of predominantly chronic illnesses. However, the Charlson list includes lymphoma, AIDS, solid metastatic tumors, and dementia (Charlson et al., 1987). Recent studies suggest that among patients with COVID-19, the CCI is one of the strongest predictors of adverse clinical outcomes (Kim et al., 2021).

However, using comorbid conditions to make triage decisions among COVID-19 patients quickly became highly controversial. Conditions such as Type II diabetes and cardiovascular disease are more prevalent in certain ethnic and cultural minorities. Because the disease burden falls more heavily upon minorities, there were serious issues with this factor determining whether someone receives life-saving treatment. In many countries, the disproportionate prevalence of chronic illness in minority populations reflects long-standing structural inequalities, including discrimination, racism, colonialism, and poverty. While access to health care is a significant factor in the excess morbidity and mortality found among minorities, health inequality is present in countries such as Canada and the United Kingdom with universal medical coverage. COVID-19 cases in European nations are distributed in two tiers. In a similar pattern as seen in the United States, COVID-19 in the United Kingdom has disproportionately impacted migrants and ethnic minorities who have rated their health as poorer than the majority population (Nielsen & Krasnik, 2010). In the United States, the COVID mortality rates among Blacks are 1.7 times and Native Americans 2.1 higher than for Whites (Centers for Disease Control, 2022). In Canada, Black men and women had COVID-19 death rates 2–3× that of "non-racialized" Canadians (Guptka & Aitken, 2022). Furthermore, some European countries have provided a less aggressive approach to COVID-19 treatment for ethnic minorities and refugee/migrant groups (Kumar et al., 2021). While conditions such as cardiovascular disease are associated with poorer outcomes among

COVID-19 patients, these illnesses are vastly over-represented among racial and cultural minorities. Using criteria such as the Charlson score disqualifies a disproportionate number of Black patients from receiving optimal care for COVID-19. Events such as the U.S. Public Health Service's Tuskegee syphilis study, in which Black men with syphilis were followed for four decades without receiving treatment, have led to African-Americans' frequent distrust of health care institutions (Bajaj & Stanford, 2021). These factors and the inability to regularly obtain health insurance have led to a long-term pattern of implicit health care rationing. In Canada, Afro-Canadians, and First Nations members are more likely to live in areas with significant environmental health hazards (Van Sant, et al, 2021) which may predispose them to poorer COVID outcomes. Among U.S. military veterans, exposure to environmental toxins mediated the relationship between ethnic/racial disparities and hospitalizations for COVID-19 (Wong et al., 2022). Among Canada's aboriginal peoples, more significant mortality has been associated with environmentally related mercury exposure (Venkataraman et al., 2022). A Rawlsian model of distributive justice might suggest that a lottery should be used to determine which patients received more aggressive care. While seeming to meet the definition of fairness, making allocation decisions behind "the veil of ignorance" assumes that a baseline of acceptable health exists for all. As is evident, this assumption is not valid.

Groups Granted Preferential Status

In many of the algorithms prioritizing specific groups for treatment, health care providers were at the front of the line. However, while there was general agreement internationally about this principle, there were variations in the underlying reasons for preferential treatment. As highly valued and needed professionals during the pandemic, physicians and nurses required priority treatment to return to their duty of treating sick COVID patients. Emanuel et al. (2020) indicated that a decision to prioritize healthcare workers for treatment is not based upon social worth but on their "instrumental value." They note that physicians and nurses who could not work because of illness would indirectly increase the lives lost among patients. The criterion of preferential treatment is one of the few places in bioethics where deontology and utilitarianism could conceivably converge—giving health care providers priority treatment and returning them to fulfill their duties as physicians and nurses (deontology) by treating patients and saving the most lives as soon as possible (utilitarian). In addition, a virtuous nurse would want to return to their duties as quickly as possible out of fidelity to patient care, compassion, and self-effacement (Pellegrino & Thomasma, 1993).

During the pandemic, health care providers caring for patients worldwide were hailed as "heroes." A "hero" follows Kant's categorical imperative and exhibits multiple virtues but without any expectation of reward or even recognition—"it is all part of the job" (Jeffrey, 2020). There were some gestures of reciprocity for these sacrifices in the form of preferential access to vaccines when they came available.

Additionally, in some American states, nurses and physicians were given special protection against malpractice litigation for circumstances surrounding COVID-19 patients' deaths (Koch & Hoffmann, 2021).

Cox (2020) questions whether, for health care providers, being called a "hero" may have done more harm than good. The workload and the hours were often well beyond customary medical practice. In addition, if and when they returned home after a long hospital shift, health care providers often had to isolate themselves to protect their families. One perhaps extreme example was a group of nurses in China who had their heads shaved. The purpose was reportedly to reduce infection transmission and to be able to change into protective clothing more rapidly (Smith et al., 2020). While the "official" photos were accompanied by descriptions of the nurses' willing sacrifice to protect patients, other information suggested that altruism was not the motive for some of these young women. There were reports that some nurses were not asked or given prior notice of their hair being cut off. In one photo, a woman who appears to be a nurse was crying as her hair was cut off. As Cox (2020) points out, the hero ethos prevented an open discussion about the limits of health care providers' duties. Additionally, should these "heroes" have received some form of reciprocity for their efforts other than not being the subject of a lawsuit? At a minimum, these benefits could include an adequate supply of employer-provided personal protective equipment, availability of mental health support, compensation if they become ill, and financial support for their families should they die from COVID themselves (Cox, 2020).

Aside from health care workers, another group recommended for preferential status based on the principle of reciprocity were volunteers for the COVID-19 clinical vaccine trials. Those who had participated in vaccine trials were considered higher priority for receiving any needed life-sustaining treatment. The reasoning is that these research subjects contributed to the common good, but at some risk to themselves since, during clinical trials, all possible adverse events are not usually known. In addition, persons providing viral samples and undergoing repeated testing as part of surveillance should be prioritized. One reservation about this reasoning is that there are segments of the population who, based on history, have genuine hesitation about participating in biomedical research. Historically, the African-American and Canadian First Nations communities have been non-consenting participants in multiple clinical studies and sustained harm as a result. This history is also a factor in contemporary structural inequalities.

A Revised Algorithm for Allocating Scarce Treatment Resources

To their credit, soon after these issues became apparent, White and Lo (2021) developed a revised treatment decision algorithm with a modified set of criteria. They accompany their revised algorithm with a reflective description of the importance of addressing structural inequalities in allocating scarce resources. They acknowledge the reality that the original algorithm they had put forth earlier (White & Lo, 2020a) would save the most lives. However, they attempt to address social justice while retaining some functional elements. White and Lo (2021) seem to recognize the validity of criticisms of age, frailty, and comorbidities in allocating treatment. However, they maintain the format of quantitative triage assessment based on the belief that a quantitative algorithm, even when modified for inequalities, would save more lives than a lottery or first-come-first-served approach.

In their revised decision tree, White and Lo (2021) retain and expand upon the "preferred" status for health care workers; in terms of who would receive priority, they recommend extending that category to include anyone considered an essential worker by state or federal guidelines. This category could consist of retail employees, bus drivers, and food service workers. This revision gives greater representation to the many essential African-American and Latinx employees who had to work during the pandemic out of economic necessity.

During the first year of the pandemic, while African-Americans comprised approximately 13% of the U.S. population, they comprised 32% of COVID-19 hospitalizations and had a significantly higher fatality rate than White COVID-19 patients. White and Lo (2021) included a quantitative correction factor as an attempt to offset structural inequalities. White and Lo (2021) applied the Area Deprivation Index (ADI) based on the neighborhood census block in which a patient resides. The ADI dimensions include educational level, employment, physical environment, and infrastructure. There are computer programs in which a patient's address is entered and a score computed. Using a geographic indicator rather than race/ethnicity reduces the likelihood of legal issues regarding racial discrimination (White & Lo, 2021).

Dimensions such as quality of life or long-term life expectancy are not part of the revised algorithm. While recognizing that the sequential organ failure assessment (SOFA) may have some limitations, White and Lo (2021) believe that the SOFA still has merit. As noted above, the SOFA does have research support and predicts mortality. Schmidt et al. (2022) highlight one element of the SOFA score that is relevant for treatment allocation. Creatinine levels indirectly reflect kidney function. In the SOFA system, a creatinine level of <1.2 mg/dl receives "0" points toward denial of a ventilator. A creatinine level of 1.2–1.9 receives 1 point and moves the patient close to being denied life-sustaining care. However, research suggests that, in general, average creatinine levels are higher in African-Americans and possibly associated with greater muscle mass (Peralta et al., 2010). This factor should also be taken into account if using the SOFA system.

Age is retained as a dimension; if two patients have equal triage scores and only one intensive care unit bed or ventilator is available, the younger patient would receive it. White and Lo (2021) responded to the criticism that introducing a correction factor for healthcare disparities would lead to fewer lives saved than their previous strictly utilitarian algorithm by referencing the principles of justice: "In our view, when society is substantially responsible for creating disparities through unfair social policies, there is a special obligation to prioritize disparity mitigation, even if doing so results in somewhat fewer overall lives saved compared with purely utilitarian triage" (White & Lo, 2021, p. 292).

As another strategy to offset the harm of structural inequalities, White and Lo (2021) recommend changes in hospital policies. At the state or federal level, hospitals that have generally been "safety net" facilities serving more disadvantaged patients should be prioritized for receiving additional equipment such as face masks and ventilators. Additionally, White and Lo (2021) believe that policies should be implemented to encourage the transfer of patients to less populated hospitals when necessary. For example, suppose the local safety unit hospital is overwhelmed. In that case, disparities in treatment and outcome could be served by having the ability to transfer patients to a less populated, yet nearby, private hospital or having the flexibility to transfer patients to facilities across state lines.

Who Should Make the Final Decision About Rationing Care?

The question of who should decide about treatment is a critical ethical question in rationing. Those involved in rationing decisions included interprofessional teams, critical care teams, and senior physicians. When hospitals were overwhelmed with COVID-19 cases in Italy and France, treating physicians were initially required to make these decisions based on utilitarian principles of minimizing deaths and maximizing life years (Orfali, 2020). In France, it was recommended that intensive care physicians have an ethics consultant available for complex cases (Orfali, 2020). In reality, triage decisions varied by the hospital, and in Italy, age cutoffs were established, often at age 80 or 75. Early in the pandemic, a conflict of interest principle was quickly recognized. The absence of a centralized set of treatment allocation guidelines was reported to trouble some Italian physicians who spoke openly about the moral distress they were experiencing. In doing so, some of these providers were reprimanded by their hospitals (Orfali, 2020). In France, these decisions were often made informally simply by not admitting older patients to the hospital or, if admitted, not transferring them to intensive care units. It is reported that a similar process occurred with persons with disabilities. One rationale put forward to defend the practice with older patients was that they would not respond well to ventilation (Orfali, 2020).

The rationing of care during the pandemic presented a significant risk of moral injury to health care providers. Repeated episodes of moral distress (Akram, 2021) can lead to the more enduring syndrome of moral injury when the health care provider is "… witnessing, failing to prevent, carrying out, or learning about acts in healthcare that transgress deeply held moral beliefs…" (Akram, 2021, p. 2). Thomasma (1990), writing from the perspective of virtue ethics, notes that when a patient's physician is participating in decision-making around rationing of care, the physician ceases to represent the patient's best interests. In essence, the provider has abandoned the virtue of fidelity to the patient. When placed in this situation, in keeping with the values of integrity and honesty, the clinician should explicitly inform the patient that their best interest is no longer the sole guide to decision-making. Similar to Kant's categorical imperative, Thomasma (1990) argues that patients are in an inherently vulnerable state, and a rationing system based on specific patient qualifications such as the likelihood of survival "…diminishes the intrinsic value of human life…" (Thomasma, 1990, p. 253).

In contrast to the physician-centered process in some European countries, U.S. COVID rationing guidelines consistently stated that a third party, not directly involved in the patient's care, should make these decisions (Emanuel et al., 2020). White and Lo (2020a) recommend that triage be conducted by "an acute care physician triage officer, supported, [and if available]... an acute care nurse and administrator …" (White & Lo, 2020b, p. 1). Probably the most emotionally charged and morally wrenching scenario involves removing a ventilator from an ill patient with a less than optimal prognosis to use it for a younger patient with few other health issues. Deliberate withdrawal of care from a seriously ill patient is not the same as not initiating care for the same patient. Withdrawal is an intentional act resulting in the patient's death rather than a passive decision. Again, using a protocol by an educated and trained team that is not directly involved in the patient's care would be the optimal approach. By separating direct clinical care from administrative decisions about resource allocation, healthcare providers maintain their fiduciary duty to patients (Butler, 2020) and are less likely to experience moral distress. One possible solution for future health care crises is for hospitals, to establish ethics committees if not already present. In the United States, a hospital ethics committee is required by the Joint Commission on Accreditation of Health Care Organizations and is strongly supported by the American Medical Association. If membership included physicians, nurses, and professionals with a strong background in medical ethics, these already existing committees could conceivably serve a triage function.

Code Status, Cardiopulmonary Resuscitation in the Context of COVID-19

Emergency cardiopulmonary resuscitation (CPR) in U.S. hospitals is typically referred to as a "Full Code" and may include intubation if warranted to keep the patient alive. If these interventions are not desired by the patient, they are given Do Not Resuscitate (DNR) status. In the United States, in keeping with the value of autonomy, upon hospital admission and before undergoing a surgical procedure, the patient or their surrogate are asked: "If your (or the patient's) heart stops, should the medical staff do everything possible to resuscitate you (the patient)?" When the question is worded as such, the majority of patients and decision-makers will request "full code" status.

Performing emergency CPR in a hospital with many patients infected with COVID-19 raises significant moral concerns. From the perspective of deontology and a patient's right to self-determination, the medical staff's response to a "code blue" is an automatic duty. Having witnessed teams rush to a patient's room to begin CPR, there is a singular focus on saving the patient's life. "Calling a code" in a hospital involves a medical team being urgently summoned to the patient's bedside to provide CPR. Unfortunately, most attempts at CPR in the hospital are unsuccessful in the short-term. The survival rate of hospitalized COVID-19 patients receiving

CPR is low. A pre-pandemic meta-analysis reported an average one-year survival rate of 13%. Among COVID-19 patients in a New York hospital, the comparable rate was 1.7% (Aldabagh et al., 2021). There is evidence that patients and their families view the intervention as much more successful than it is in reality (Marco & Larkin, 2008). Studies suggest that this perception is shaped by popular television shows in which most patients are successfully resuscitated and able to leave the hospital (Diem et al., 1996).

For the health care professional, a deontological duty to preserve life, in the hospital context of COVID-19 crisis care standards, creates a significant risk of moral and physical harm. Hospital-based CPR is also personnel intensive, with a team of physicians, nurses, and other allied health professionals frequently involved. In addition to its limited success, CPR in a setting where patients with COVID are being treated presents elevated risks of infection to medical staff (Sultan et al., 2021). Early in the pandemic, some institutions did not have adequate personal protective equipment, further heightening the risk. From a utilitarian perspective, calling a code also temporarily removes health care personnel from caring for patients with a greater likelihood of survival. From a quantitative cost-benefit perspective, "full codes" are high risk and low benefit. It has been suggested that the risks and low success rate be part of the discussion when raising the issue of code status with patients and their families.

Conclusion

COVID-19 has brought ethical theory to the foreground in international health care. It is hoped that the clinical dilemmas raised will encourage medical schools and residences to devote more time to ethics education. When one hears the global appraisal "That would be unethical," the response should be "Unethical from which perspective?" The pandemic seriously challenged the norm of the autonomous patient who makes choices about their care and a physician who has a fiduciary responsibility to them alone. Public health's ethical utilitarianism became more prominent in moral decisions about limiting individual freedom and medical treatment options. The pandemic has contributed to increased critical analysis of individualism versus responsibility for the community's welfare.

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