Unto the least of these: Caring for the vulnerable in the time of COVID

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Abstract
As the COVID-19 pandemic initially unfolded in early 2020, medical systems were rapidly overwhelmed with critically ill patients. Intensive care resources were strained and, in some cases, insufficient. Concepts of triage and allocation of life-saving resources, once only hypothetical, were called into action. Vulnerable elderly, chronically ill, and disabled patients found themselves subject to protocols and guidelines that singled them out for disparate access to treatments. In this article, I overview the historical background of the early COVID-19 crisis, frontline triage guidelines in Italy and New York City, the conceptual nature of triage, the problematic practice of reallocation, the ethical principles that were challenged, how Judeo-Christian teachings inform these issues, and conflicts of physician duties with attendant moral distress. I close with a set of normative guideline statements that could help define a path through the extreme scarcities of a catastrophic pandemic crisis surge.

Keywords
COVID-19, intensive care, persons with disability, reallocation, triage, ventilator

Introduction
The illness now simply called COVID has changed our world in a myriad of ways. Society has relearned the long-forgotten lesson that sometimes illness affects not only a person but an entire population. Society has seen that even the wealthiest nations and the most advanced medical systems may be driven to their knees by the powers of pestilence. Society has accepted that sometimes a crisis becomes not an event, but a way of life.

As the pandemic initially unfolded, medical systems were overwhelmed with critically ill patients. Intensive care resources were strained and, in some cases, insufficient. Concepts of triage and allocation of life-saving resources, once only hypothetical, were called into action. Vulnerable elderly, chronically ill, and disabled patients found themselves subject to protocols and guidelines that singled them out for disparate access to treatments. In this article, I overview the historical background of the early COVID-19 crisis, frontline triage guidelines in Italy and New York City, the conceptual nature of triage, the problematic practice of reallocation, the ethical principles that were challenged, how Judeo-Christian teachings inform these issues, and conflicts of physician duties with attendant moral distress. I close with a set of normative guideline statements that could help define a path through the extreme scarcities of a catastrophic pandemic crisis surge.

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The historical background

In late December 2019, physicians in Wuhan, China, began to see patients hospitalized with a pneumonia of unknown origin, and by December 31 the outbreak prompted a bulletin from the Wuhan Municipal Health Commission, soon followed by involvement of the World Health Organization (WHO). The offending agent was quickly determined to be a virus of the coronavirus family and was named the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The highly communicable virus spread rapidly. The first case of COVID-19 illness in the United States was confirmed in Snohomish County, Washington, on January 20, 2020, in a traveler returning from Wuhan, China. The first case of COVID-19 in Italy was confirmed on February 20, 2020. By February 29, 2020, WHO recorded 6000 cases outside China in 53 countries, with significant localizations in the Republic of Korea and Italy. The global situation rapidly deteriorated, and, on March 11, 2020, with over 100,000 cases and 4200 deaths worldwide, the WHO declared COVID-19 to be a pandemic.

At this point, the Lombardy region of northern Italy was in desperate straits, with physicians reporting an overwhelming surge in patients in need of intensive care and with regional resources at capacity. By mid-March, the Lombardy region, with a baseline intensive care unit (ICU) capacity of 724 ICU beds, had 1006 patients on advanced respiratory support. With daily ICU admissions growing exponentially, the physicians foresaw possible total collapse of the ICU system. Ominously, the Italian physicians warned, “Other health care systems should prepare for a massive increase in ICU demand during an uncontained outbreak of COVID-19.” Things were to become much worse.

1. Sudhvir Singh et al., “How an Outbreak Became a Pandemic: A Chronological Analysis of Crucial Junctures and International Obligations in the Early Months of the Covid-19 Pandemic,” Lancet 398.10316 (December 4–10, 2021): 2109–24.
2. Coronaviridae Study Group of the International Committee on Taxonomy of Viruses, “The Species Severe Acute Respiratory Syndrome-Related Coronavirus: Classifying 2019-Neov and Naming It Sars-Cov-2,” Nature Microbiology 5.4 (April 2020): 536–44. The first SARS-CoV coronavirus caused a 2003 outbreak with roughly 8000 cases and 800 deaths worldwide. Robert A. Weinstein, “Planning for Epidemics—The Lessons of SARS,” New England Journal of Medicine 350.23 (June 3, 2004): 2332–34.
3. Michell L. Holshue et al., “First Case of 2019 Novel Coronavirus in the United States,” New England Journal of Medicine 382.10 (March 5, 2020): 929–36.
4. Danilo Cereda et al., “The Early Phase of the COVID-19 Epidemic in Lombardy, Italy,” Epidemics 37 (December 2021): 100528.
5. World Health Organization, “Coronavirus Disease 2019 (COVID-19): Situation Report – 40,” February 29, 2020, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200229-sitrep-40-covid-19.pdf?sfvrsn=849d0665_2.
6. Tedros Adhanom Ghebreyesus, “WHO Director-General’s Opening Remarks at the Media Briefing on COVID-19,” March 11, 2020, World Health Organization, https://www.who.int/director-general/speeches/detail/who-director-general-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020.
7. Benedetta Armocida et al., “The Italian Health System and the COVID-19 Challenge,” Lancet Public Health 5.5 (May 2020): e253.
8. Giacomo Grasselli et al., “Critical Care Utilization for the COVID-19 Outbreak in Lombardy, Italy,” Journal of the American Medical Association 323.16 (April 28, 2020): 1545–46, doi.org/10.1001/jama.2020.4031.
The northern Italian epidemic peaked from mid-March to mid-April 2020, with data from the Italian government showing daily new cases in Lombardy during that time ranging from 1500 to 2500.9 Sixteen of each 100 cases required ICU admission for severe respiratory illness.10 Mortality among those hospitalized was 30%.11 By April 2020, Lombardy had over 62,000 cases with a case mortality rate of 18%.12 Hospitals ran out of beds, and patients, some on respiratory support devices, were in hallways. The number of mechanical ventilators to support respiration for the most critically ill patients was rapidly exhausted. In this dire situation, the physicians began to triage the patients, deciding who would and who would not get a ventilator, and in many of those circumstances who would live and who would die.13

In the United States, a similar catastrophe developed in New York City during the same time frame. There the first confirmed case of COVID-19 was on February 29, 2020.14 The outbreak exploded as cases grew exponentially. By the middle of March 2020, New York City had the highest case incidence rate in the United States, more than twice that of New Jersey and nearly five times that of Louisiana.15 The New York City experience rivaled that of Lombardy in intensity. By early April 2020, cumulative case rates were 915 per 100,000.16 In comparison, the July 2020 cumulative case incidence in Lombardy was 951 per 100,000.17

Parallel to the northern Italian experience, the New York City epidemic peaked from late-March to early-April 2020. During the last week of March, there were over 5100 new cases and 1500 new hospitalizations daily. By 1 June 2020, New York City had over 200,000 cases, with 27 of 100 requiring hospitalization and an overall case mortality rate of 9%.18 Mortality among those hospitalized was 36%.19 Hospital and ICU resources in New York City were quickly strained. On March 28, 2020, roughly 85% of both the 2011 ICU beds and the 20,330 hospital beds in the City were occupied.20 On April 5, at the peak of the epidemic, Mayor Bill DeBlasio indicated that New York City had 4000 patients on ventilators with a projected immediate need
for 1000 additional ventilators, with fulfillment of most of that need expected from out-of-city sources.\textsuperscript{21} The ventilators arrived, the surge began to subside, and New York City narrowly skirted the breaking point.

**Frontline triage guidelines**

Despite actions of the Italian government to lock down affected regions, open additional hospital beds, and procure additional ventilators, the looming scarcity of intensive care resources prompted the Italian Society of Anesthesia, Analgesia, Resuscitation and Intensive Care (SIAARTI) to publish triage recommendations on March 6, 2020.\textsuperscript{22} To be applied under conditions of “extraordinary scarcity,” the recommendations rejected first-come, first-served triage and instead provided that

the criteria for access to and discharge from the ICUs should include also principles of distributive justice and appropriate allocation of limited healthcare resources, in addition to clinical appropriateness and proportionality of care. As an extension of the principle of proportionality of care in a context of serious shortage of healthcare resources, we must aim at guaranteeing intensive treatments to patients with greater chances of therapeutic success favoring the “greatest life expectancy.”\textsuperscript{23}

This structure placed the elderly, the weak, and the disabled under heightened scrutiny. In a related commentary, the authors noted that “frail elderly patients with severe comorbidities would likely have a more ‘resource consuming’ clinical course” and that the “age, comorbidities and functional status of any critically ill patient should be carefully evaluated.”\textsuperscript{24} Condoning a utilitarian life-years saved ethos, the recommendations explicitly permitted age limits:

An age limit for the admission to the ICU may ultimately need to be set. The underlying principle would be to save limited resources which may become extremely scarce for those who have a much greater probability of survival and life expectancy, in order to maximize the benefits for the largest number of people.\textsuperscript{25}

In addition to initial allocation of life-saving resources, the recommendations also endorsed withdrawal of previously allocated ventilators and ICU care to free up resources for other patients, a process sometimes termed “reallocation.” The language intimated that this decision was to be nonconsensual, to be communicated but not negotiated:

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, considering the patient’s history, current clinical course, wishes, expected goals and proportionality of ICU care. When a patient is not responding to prolonged life-sustaining treatments, or severe clinical complications arise, a decision to withhold or withdraw further or ongoing therapies should not be postponed in a resource-limited setting during an epidemic.\textsuperscript{26}

\textsuperscript{21} Jennifer Calfas and Talal Ansari, “New York Races to Get Coronavirus Supplies Before Cases Peak,” *The Wall Street Journal*, April 5, 2020, https://www.wsj.com/articles/new-york-races-to-get-coronavirus-supplies-before-cases-peak-11586123114

\textsuperscript{22} Marco Vergano et al., “SIAARTI Recommendations for the Allocation of Intensive Care Treatments in Exceptional, Resource-limited Circumstances,” *Minerva Anestesiologica* 86.5 (May 2020): 469–72.

\textsuperscript{23} Vegano et al., “SIAARTI Recommendations,” 470.

\textsuperscript{24} Marco Vergano et al., “Clinical Ethics Recommendations for the Allocation of Intensive Care Treatments in Exceptional, Resource-Limited Circumstances: The Italian Perspective During the COVID-19 Epidemic,” *Critical Care* 24 (2020): 165.

\textsuperscript{25} Vergano et al., “SIAARTI Recommendations,” 471.

\textsuperscript{26} Vergano et al., “SIAARTI Recommendations,” 471.
In the face of mounting public questions regarding triage, the Italian National Institute of Health (ISS), through its National Center for Clinical Excellence, published in January 2021 a “best clinical practices” document outlining triage principles for conditions of extreme scarcity of intensive care resources.\textsuperscript{27} This document was crafted by a workgroup of intensive care physicians and legal medicine experts and was heralded as the “reference standard.” It contained a series of statements pertaining to triage with a stated goal “to ensure life-sustaining treatments to as many patients as possible who may benefit from them.”\textsuperscript{28} These statements recommended use of objective clinical prognostic parameters for estimating short-term survival of the illness and rejected age-based cutoffs. They recommended insulation of the physician from the entirety of the decisions, instead relying on the collective judgment of a medical team. For patients not responding to treatment or worsening, the statements preserved proportionality-based decisions to withdraw “futile treatments.”\textsuperscript{29}

In New York, planning for the scarcity of ventilators in a pandemic had been going on for some time. The New York State Task Force on Life and the Law, a gubernatorially appointed policy advisory body operating under the auspices of the Department of Health, published draft non-binding Ventilator Allocation Guidelines in 2007.\textsuperscript{30} Intended for use in a pandemic, the stated purpose of this guideline was to maximize the number of survivors of the acute illness, disavowing quality of life judgments and age-based exclusions. These guidelines applied a set of hard-stop medical exclusion criteria consisting of several conditions that objectively would have a high mortality even with ventilator use. Triage decisions would then rely upon a physiologic scoring system designed to assess short-term mortality, specifically including the Sequential Organ Failure Assessment (SOFA) scoring system.\textsuperscript{31} The guidelines provided for ventilator use as a “time trial” with patients reassessed at 48 and 120 hours and with patients subject to removal of the ventilator if they subsequently failed to meet “rationing standards for continued ventilator support.”\textsuperscript{32} The decision to withdraw a ventilator was removed from the treating physician and placed under the authority of a triage officer.

The New York guidelines underwent revision in 2015 but with no substantive change to the fundamental structural or operational provisions.\textsuperscript{33} The 2015 document again stressed the possibility of nonconsensual withdrawal of a ventilator:

Public outreach will inform people about the goals and steps of the clinical ventilator allocation protocols. Information should emphasize that pandemic influenza is potentially fatal, that health care providers are doing their best with the limited resources, and the public must adjust to a different way of providing and receiving health care than is customary. Instead, a protocol based only on clinical factors will be used to determine whether a patient receives (or continues with) ventilator treatment to support the goal of saving the greatest number of lives in an influenza pandemic where there are a limited number of available

\textsuperscript{27} Luigi Ricconi et al., “The Italian Document: Decisions for Intensive Care When There Is an Imbalance Between Care Needs and Resources During the COVID-19 Pandemic,” \textit{Annals of Intensive Care} 11.1 (June 29, 2021): 100.

\textsuperscript{28} Ricconi et al., “Italian Document,” 100.

\textsuperscript{29} Ricconi et al., “Italian Document,” 100.

\textsuperscript{30} New York State Task Force on Life and the Law, New York State Department of Health, “Allocation of Ventilators in an Influenza Pandemic: Planning Document, Draft for Public Comment March 15, 2007,” https://www.cidrap.umn.edu/sites/default/files/public/php/196/196_guidance.pdf.

\textsuperscript{31} J. L. Vincent et al., “The SOFA (Sepsis-related Organ Failure Assessment) Score to Describe Organ Dysfunction/Failure,” \textit{Intensive Care Medicine} 22 (1996): 707–10.

\textsuperscript{32} New York State Task Force, “Allocation of Ventilators,” 35.

\textsuperscript{33} Susie A. Han and Valerie G. Koch, “Clinical and Ethical Considerations in Allocation of Ventilators in an Influenza Pandemic or Other Public Health Disaster: A Comparison of the 2007 and 2015 New York State Ventilator Allocation Guidelines,” \textit{Disaster Medicine and Public Health Preparedness} 14.6 (December 2020): e35–e44.
ventilators. Patients and families should be informed that ventilator therapy represents a trial of therapy that may not improve a patient’s condition sufficiently and that the ventilator will be removed if this approach does not enable the patient to meet specific criteria.34

By late March 2020, as COVID-19 cases were exploding in New York City, the Governor of New York effectively disavowed the Ventilator Allocation Guidelines.35 During the height of the crisis, the State of New York did not endorse or authorize use of crisis standards of care, leaving individual facilities to variably develop and utilize crisis response practices.36 The Governor did authorize statewide redeployment of geographically dispersed ventilator inventory and endorsed repurposing anesthesia and bilevel positive airway pressure (BiPAP) machines as well as the splitting of a ventilator for more than one patient.37 As ventilator supply dwindled, the Mount Sinai Hospital developed and tested an experimental protocol for the controversial concept of ventilator splitting, though it ultimately was not required in clinical practice.38 On April 26, 2020, with all New York City hospitals having activated their incident command systems, the New York City Department of Health and Mental Hygiene issued a document recommending that all hospitals have a crisis care committee and providing detailed guidance on use of crisis standards of care and triage protocols.39 This document explicitly indicated that withdrawal of life support could be nonconsensual and was not subject to consent or agreement of the patient or family:

When triage to “palliative care only” in disasters is not by patient choice but dependent on available resources, management of expectations and transitions is critical to the physical and mental well-being of patient, family and providers. Anticipating patient and family questions, explaining resource allocation and acknowledging their frustration and feeling of injustice may help them accept the protocol.40

Thus, in both northern Italy and New York City, the calamity of the pandemic brought to the fore allocation and reallocation triage concepts that had previously been theoretical and untested in the setting of extreme scarcity of intensive care resources. In particular, the protocols allowing for nonconsensual removal of a ventilator for reallocation purposes, with the presumptive certainty that the removed patient would die, brought forward unprecedented practical, ethical, and moral challenges.

The conceptual nature of triage

Formal mechanisms of triage allocation of medical resources in the face of demand/supply imbalance are a relatively recent phenomenon. Taking origin in the French concept of trier, or sorting,
organized triage in medical scarcity was first espoused in the nineteenth century by British Naval Surgeon John Wilson, who sorted battle wounds into three groups: slight, which may be put off; serious, which call for immediate attention; and fatal, for which nothing can be done.41 This tripartite structure continues as foundational for modern concepts of triage. In 2009 the Institute of Medicine, in studying crisis standards of care, stated that “a triage program aims to rapidly screen, evaluate, and sort patients based on their medical status and likely outcome,” and included example triage protocols with exclusion of those unlikely to survive.42

Functionally, Ezekiel Emanuel and coauthors proposed early in the pandemic that the overarching ethical value in triage of life-sustaining resources should be maximization of value, understood as “saving the most individual lives or as saving the most life-years by giving priority to patients likely to survive longest after treatment,” with maximization of short-term survivorship as the priority aim.43 They held that long-term prognosis should be a tiebreaker.

Inherent in a most lives saved ethic in times of extreme scarcity is the idea that those with a very poor short-term prognosis may be excluded from receipt of scarce life-saving resources. In a 2014 consensus statement on care of the critically ill and injured during pandemics and disasters, The American College of Chest Physicians published exclusion criteria based on an aim to identify patients who are not candidates for ICU admission, including those (1) with a poor prognosis despite ICU care, (2) requiring resources that cannot be provided, and (3) whose underlying illness has a poor prognosis with a high likelihood of death.44

The last of these three exclusion categories has proved to be most controversial. Ezekiel and coauthors noted that “maximizing benefits requires consideration of prognosis—how long the patient is likely to live if treated—which may mean giving priority to younger patients and those with fewer coexisting conditions.”45 Persons with disabilities quickly realized that references to comorbidities and coexisting conditions could broadly be interpreted to establish a discriminatory regime that disadvantaged their access to scarce life-saving resources. On March 18, 2020, the National Council on Disability wrote Roger Severino, the Director of the Office for Civil Rights, U.S. Department of Health & Human Services, with a dire warning:

OCR should rapidly head off what could be yet another time in US history when people with disabilities are left to die because medical decisions remain infused with disability bias or because physicians are not aware of their responsibilities under the Americans with Disabilities Act, the Rehabilitation Act, and the Affordable Care Act. More evidence of the need for immediate OCR action is found in a cursory review of State protocols for standards of medical care for times of crisis—like a pandemic—that show that people with existing disabilities will be, if the plans remain the same, discriminated against in the provision of COVID-19 care.46

The Director agreed, and on March 28, 2020 the Office for Civil Rights issued a Bulletin providing civil rights guidance concerning non-discrimination during the COVID-19 public health

41. John Wilson, *Outlines of Naval Surgery* (Edinburgh: Maclachlan, Stewart, and Co., 1846).
42. Institute of Medicine, *Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations* (Washington, DC: The National Academies Press, 2009), 17. In 2015, the Institute of Medicine was reconstituted as the National Academy of Medicine.
43. Ezekiel J. Emanuel et al., “Fair Allocation of Scarce Medical Resources in the Time of Covid-19,” *New England Journal of Medicine* 382.21 (May 21, 2020): 2049–55.
44. Michael D. Christian et al., “Triage: Care of the Critically Ill and Injured during Pandemics and Disasters: CHEST Consensus Statement,” *Chest* 146.4 Suppl (October 2014): e61S–74S.
45. Emanuel et al., “Fair Allocation of Scarce Medical Resources,” 2053.
46. Neil Romano, National Council on Disability, letter to HHS OCR Roger Severino, March 18, 2020, https://ncd.gov/publications/2020/ncd-covid-19-letter-hhs-ocr#_ftn3.
emergency. The Bulletin provided that disability discrimination laws for covered entities “remain in effect” during the crisis and warned that

As such, persons with disabilities should not be denied medical care on the basis of stereotypes, assessments of quality of life, or judgments about a person’s relative “worth” based on the presence or absence of disabilities or age. Decisions by covered entities concerning whether an individual is a candidate for treatment should be based on an individualized assessment of the patient based on the best available objective medical evidence.47

Director Severino included within the Bulletin a stunningly direct emphasis of fundamental principles to govern the conceptual nature of triage:

HHS is committed to leaving no one behind during an emergency, and this guidance is designed to help health care providers meet that goal. Persons with disabilities, with limited English skills, or needing religious accommodations should not be put at the end of the line for health services during emergencies. Our civil rights laws protect the equal dignity of every human life from ruthless utilitarianism.48

This Bulletin firmly refuted the primacy of a population-based utilitarian ethos of triage and forcibly guided these difficult decisions into a deontological path bound by principles of the fundamental worth and dignity of each human being.

**Equal dignity and worth of each human being**

The statements in the March 2020 Office for Civil Rights Bulletin are deeply resonant with Judeo-Christian moral teachings. At the throne of judgment, a characteristic of the righteous will be that they fed the hungry, gave drink to the thirsty, clothed the naked, visited the sick, and came to those in prison (see Matt 25:31–40). Here, the righteous cause is to recognize the equal dignity and worth of all in need and to provide for them as one may be able. The reality that needs may exceed resources is clearly understood but does not negate or diminish the moral imperative to do what may be done: “Since there will never cease to be some in need on the earth, I therefore command you, ‘Open your hand to the poor and needy neighbor in your land’” (Deut 15:11 NRSV). Likewise, the ability to repay, taken allegorically as socially defined worth of persons, must not cause favor:

When you give a luncheon or dinner, do not invite your friends, your brothers or sisters, your relatives, or your rich neighbors; if you do, they may invite you back and so you will be repaid. But when you give a banquet, invite the poor, the crippled, the lame, the blind. (Luke 14:12–13 NRSV)

In the extreme scarcity of a pandemic surge, patients in need of life-saving resources will be rich and poor, strong and weak, young and old. Each possesses an equal claim to life-saving resources. Each must equally receive a just and objective assessment, fairly applying such standards as may sort those who will likely survive with help from those who likely will not. A utilitarian ethos favoring life-years saved, with a greater societal return on investment, violates this fundamental principle of equality.

47. U. S. Department of Health and Human Services, Office for Civil Rights, “BULLETIN: Civil Rights, HIPAA, and the Coronavirus Disease 2019 (COVID-19),” March 28, 2020, www.hhs.gov/sites/default/files/ocr-bulletin-3-28-20.pdf.
48. U. S. Department of Health and Human Services, “BULLETIN.”
Reallocating life-saving resources

As difficult as triage at the time of initial allocation of life-saving resources may be, an even more troublesome question arises when decision makers seek to reallocate life-saving resources. Reallocating is a population-centered process during surge crisis by which scarce life-saving resources may be nonconsensually removed from patients to whom they previously have been allocated with the intent that those life-saving resources will then be assigned to other individuals thought to have a more favorable prognosis or a higher potential of benefit.49

Reallocating is founded in the idea that the initial allocation of a life-saving resource is a “time trial” of therapy. Therapeutic trials and cessation of non-beneficial treatments are common concepts in medicine. An antibiotic is stopped when an infection becomes resistant. Antihypertensive medications are changed if they do not produce the desired result. And life-saving resources may be consensually withdrawn, often on the patient’s initiative, when the patient has clearly become terminally ill and the therapy is only prolonging the dying process.

In the United States, these latter concepts were forged in the second half of the twentieth century through a series of difficult court cases. The parents of Karen Ann Quinlan gained recognition that the right to privacy includes the right to withdraw life-sustaining treatment when hope of emerging from a coma ends.50 In the case of Nancy Cruzan, the US Supreme Court recognized a 14th Amendment liberty interest in refusing unwanted medical treatment.51 These decisions were followed by the widespread adoption of laws authorizing advance directives known as living wills.52

In a pandemic surge, as in all other times, physicians should continue the usual practice of informing a patient or family when an illness has become terminal with no reasonable hope of recovery. That point is the entirely proper time to begin compassionate discussions regarding the consensual withdrawal of life-sustaining measures in order to allow the inevitable natural dying process to complete.

Nonconsensual removal of life-supportive measures is an entirely different matter. The process of taking a ventilator from a patient who is very sick but not hopelessly ill is included in many pandemic triage protocols. In a 2020 systematic review of publicly available state guidelines for ventilator allocation, 22 of 26 adult guidelines discussed removal of mechanical ventilation from one patient to give to another.53 Emanuel and coauthors noted that “many guidelines agree that the decision to withdraw a scarce resource to save others is not an act of killing and does not require the patient’s consent.”54

But it is clear that the patient from whom the life-saving resource is withdrawn is very ill and may well die upon removal. In fact, the grave severity of the illness forms the very basis of the utilitarian justification for removal. As the Institute of Medicine asserted in 2012, “The patient who is using the resource should, in the judgment of the triage team, have a substantially worse prognosis to justify withdrawal and reassignment of the resource.”55

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49. Bruce M. Altevogt, Clare Stroud, Sarah L. Hanson, Dan Hanfling, Lawrence O. Gostin, eds, Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations (Washington, DC: National Academies Press, 2009), 34–35, https://nap.nationalacademies.org/read/12749/chapter/1.
50. In re Quinlan, 355 A.2d 647, 70 N.J. 10 (1976).
51. Cruzan v. Director, Missouri Department of Health (88-1503), 497 U.S. 261 (1990).
52. George J. Annas, “The Health Care Proxy and the Living Will,” New England Journal of Medicine 324 (1991): 1210–13.
53. Gina M. Piscitello et al., “Variation in Ventilator Allocation Guidelines by US State during the Coronavirus Disease 2019 Pandemic: A Systematic Review,” JAMA Network Open 3.6 (June 1, 2020): e2012606.
54. Emanuel et al., “Fair Allocation of Scarce Medical Resources,” 2053.
55. Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations, Institute of Medicine, Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response: Volume 1: Introduction and CSC Framework (Washington, DC: National Academies Press, 2012), 4–31.
If the patient dies as a direct consequence of nonconsensual removal of a ventilator, then little reasonable doubt exists that the reallocation was an act of killing. Thereby, some actions to reallocate ventilators may well be criminal acts. Cohen and coauthors clearly presented this case in April 2020:

A clinician who intentionally withdraws a ventilator from a nonconsenting patient could conceivably be charged with criminal homicide. If the clinician knows that removing the ventilator will result in the death of the patient, the applicable charge would be murder. If the clinician knows there is a substantial risk the patient will die, and the patient does die, the applicable charge would be manslaughter. It does not matter whether the patient would have died soon regardless. Action that shortens a life, even if just by hours, can be prosecuted as a homicide, with charges potentially filed against any individual who participated in or directed the ventilator removal and against the hospital.56

Such actions are clearly violative of profound interests of the state in protecting life, particularly as to protection from the taking of innocent life by others. These state interests were explicitly enumerated by the US Supreme Court in its 1997 rejection of a constitutional right to assistance in suicide:

These interests include prohibiting intentional killing and preserving human life; preventing the serious public-health problem of suicide, especially among the young, the elderly, and those suffering from untreated pain or from depression or other mental disorders; protecting the medical profession’s integrity and ethics and maintaining physicians’ role as their patients’ healers; protecting the poor, the elderly, disabled persons, the terminally ill, and persons in other vulnerable groups from indifference, prejudice, and psychological and financial pressure to end their lives; and avoiding a possible slide toward voluntary and perhaps even involuntary euthanasia.57

As the Christian Medical and Dental Association notes, “Non-consensual withdrawal of life-supportive resources (e.g., mechanical ventilation) involves an active, intentional, and direct taking from a vulnerable person incapable of resisting.”58

That some good may come of the reallocation of the ventilator to another patient has led some to invoke the principle of double effect as a justification for reallocation.59 In order to justify a moral harm as an unintended consequence of the pursuit of a morally good end, the first two conditions of the principle of double effect require that the act itself must be morally good or indifferent and that the agent permits but does not intend the bad effect.60 But the initial act, nonconsensual removal of the ventilator and its ongoing benefit with subsequent expected injury and harm to the removed patient, has no claim to be a morally good or neutral act per se. And as to the examination of intent, the American Law Institute notes:

56. I. Glenn Cohen et al., “Withholding Ventilators during COVID-19: Assessing the Risks and Identifying Needed Reforms,” Journal of the American Medical Association 323.19 (2020): 1901–1902.
57. Washington v. Glucksberg, 521 U.S. 702, 117 S. Ct. 2258, 138 L. Ed. 2d 772 (1997).
58. Paul Hoener et al., “Triage and Resource Allocation during Crisis Medical Surge Conditions (Pandemics and Mass Casualty Situations): A Position Statement of the Christian Medical and Dental Associations Special Task Force,” Christian Journal for Global Health 7.1 (April 2020): 45–55.
59. Jason T. Eberl and G. Kevin Donovan, “Is It Ethical to Unilaterally Withdraw Life-Sustaining Treatment in Triage Circumstances?” Health Progress (April 1, 2020), https://www.chausa.org/publications/health-progress/archives/issu...https://plato.stanford.edu/entries/(double-effect/#Aca.
A person acts with the intent to produce a consequence if:

(a) the person acts with the purpose of producing that consequence;

or

(b) the person acts knowing that the consequence is substantially certain to result.\(^\text{61}\)

Physicians clearly have substantial certainty of the outcome of their actions when nonconsensually removing a ventilator from a critically ill but not terminally ill patient on grounds that the patient is sicker than the next patient in need. With its first and second premises false, the double effect argument in justification of nonconsensual ventilator reallocation collapses as unsound. These physicians act with intent and with moral culpability.

Reallocation is a fundamentally different moral process than the sorting among patients with an equal claim to resources at the time of initial triage allocation. In the initial allocation, with both patients being found in their respective conditions, one is held to have a greater need; or, if both have equal need, then one has a better chance of short-term survival than the other; or, if both need and chances of short-term survival are equal, then lots are cast. But initially neither patient has possession of the ventilator or its benefits. In reallocation, a patient has a possessive claim to the benefit of the ventilator. With nonconsensual removal, that claim is derogated, and the patient is devalued by the taking process.

The immorality of taking

Judeo-Christian traditions condemn merciless takings from the weak and the vulnerable. The parable of the unforgiving debtor exemplifies this: one who had received mercy and the forgiveness of a great debt showed no mercy or forgiveness to another, and thereby came to judgment (see Matt 18:21–35). Likewise, Proverbs speaks of offense of the poor as an insult to God (see Prov 14:31).

True, in a pandemic surge both the ventilated patient and the patient in need of a ventilator may be allegorically considered as the poor. As such, both have a claim to relief. But the unjust taking distinguishes reallocation as immoral.

Suppose that in a time of famine a bag of grain is distributed to each family, first to smaller families with the idea that these families are more likely to survive. Two families of four remain in line as the last bag is reached. Lots are cast, and one of the families is given the grain. Just as they are leaving the forum, a family of three arrives. Is taking the bag of grain and reallocating it to the smaller family moral? That such an action is repulsive is a testament to the fact that there is justice in giving scarce resources but injustice in taking them.

Within the realm of medicine, condemning the unjust taking from the weak and the vulnerable is profoundly important. This principle guards against the exploitation of unwitting research subjects. This principle prevents economic line-breaking when vaccines are scarce. And this principle causes society to condemn the taking of transplantable organs from political prisoners.

Moral distress and the conflict of duties

Notably, although the SIAARTI recommendations sought to “share with clinicians the responsibility in the decisions making process,” they did not contain references to objective criteria to define prognosis and they left the ethical burden of the triage and withdrawal decisions squarely on the

\(^{61}\) American Law Institute, *Restatement of the Law, Third: Torts: Liability for Physical and Emotional Harm: Restatement Volume 2* (St. Paul, MN: American Law Institute Publishers, 2012), §1(b).
physician providing the care.62 This situation set the stage for intensified moral distress and moral injury in the frontline physicians.

Moral distress is “the psychological distress of a situation in which one is constrained from acting on what one knows to be right.”63 Persistent moral distress can produce moral injury, with erosion of self-worth and trust in social systems.64 In discussion with three frontline Italian physicians, Lisa Rosenbaum reported descriptions of ventilator constraints and triage as “unbearable,” “aversive,” and “exquisitely uncomfortable.”65 In a series of interviews with 15 emergency and critical-care physicians who served during the pandemic in Lombardy, 10 of whom were in triage roles, researchers found significant stressors, including limited health care resources, intensified patient triage, changeable selection criteria, limited therapeutic/clinical knowledge, and patient isolation.66

A substantial portion of the moral distress of pandemic triage is likely generated by the conflict of two fundamental duties of the physician: the duty to care and the duty to steward resources. These two duties come into direct conflict in the extreme scarcity of a pandemic surge. The principal duty of a physician is to care for the patient. This duty founds a trust-based relationship wherein the patient relies upon the representation of the physician that care will be given and decisions will be made in loyalty and prudence with the sole end being benefit to the health and well-being of the patient. The duty to care is found in the Hippocratic Oath, which affirms that, “Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice.”67 The duty to care is more fully developed within the Physician’s Pledge that is the World Medical Association Declaration of Geneva:

THE HEALTH AND WELL-BEING OF MY PATIENT will be my first consideration;

I WILL RESPECT the autonomy and dignity of my patient;

I WILL MAINTAIN the utmost respect for human life;

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient.68

The American Medical Association likewise enumerates the duty to care as a core ethical principle of the medical profession, stating in The AMA Principles of Medical Ethics that, “A physician shall, while caring for a patient, regard responsibility to the patient as paramount.”69

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62. Vergano et al., “SIAARTI Recommendations,” 471.
63. F. Akram, “Moral Injury and the COVID-19 Pandemic: A Philosophical Viewpoint,” Ethics, Medicine and Public Health 18 (September 2021): 100661.
64. Akram, “Moral Injury and the COVID-19 Pandemic,” 100661.
65. Rosenbaum, “Facing COVID-19 in Italy.”
66. Guilia Lamiani et al., “Moral Distress Trajectories of Physicians 1 Year after the COVID-19 Outbreak: A Grounded Theory Study,” International Journal of Environmental Research and Public Health 18.24 (December 19, 2021): 13367.
67. Ludwig Edelstein, “The Hippocratic Oath: Text, Translation, and Interpretation,” in Ancient Medicine: Selected Papers of Ludwig Edelstein (ed. O. Temkin and C. L. Temkin; Baltimore, Md.: The Johns Hopkins University Press, 1967), 3–64.
68. World Medical Association, “WMA Declaration of Geneva,” World Medical Association Current Policies, July 9, 2018, https://www.wma.net/policies-post/wma-declaration-of-geneva/.
69. American Medical Association, “American Medical Association Principles of Medical Ethics,” in Code of Medical Ethics of the American Medical Association (Chicago: The American Medical Association, 2017), 1–2.
In the extreme scarcity of a pandemic surge, a secondary duty to steward resources places conflicting demands upon the physician. Under ordinary circumstances, this duty as espoused by the American Medical Association “requires physicians to be prudent stewards of the shared societal resources with which they are entrusted.”70 When caring for two patients in urgent need of one remaining ventilator, a treating physician bound by a duty to care is subject to a profound moral conflict, particularly if the projected utility is greater for one of the patients. When faced with this no-win situation, the optimal solution is to remove the treating physician from the allocation decision. This solution is best accomplished by assigning the duty to steward resources to an authorized triage officer or committee that has no explicit duty to care for the patient and that follows promulgated authoritative, objective, and just triage criteria and protocols.71 Another possible solution is the reconfiguration of existing resources. This reconfiguration may include repurposing of devices not primarily designed for long-term mechanical ventilation, such as limited function transport ventilators, anesthesia machines, and adapted continuous flow ventilators.72 Giving a patient a resource that offers suboptimal benefit in lieu of the disastrous course of no resource at all is certainly a Hobson’s choice, but it is a life-affirming path.

In either solution, the processes involved remove the treating physician from the no-win scenario, are not violative of the duty to care, and preserve principles of justice.

Principles addressing allocation, reallocation, and reconfiguration of life-sustaining resources as a response to crisis-induced scarcity in a pandemic

To conclude, I offer the proposition that given the ethical complexities of triage of life-sustaining resources in the extreme scarcity of a pandemic surge, the following normative principles should guide:

1. Each human being is of equal dignity and worth: those who are thought able and those who are not, those who are beset by illness and those who are not, and those who are thought likely to recover and those who are not.
2. Among the community of persons, all persons hold a fundamentally equal claim to the benefits of scarce life-sustaining resources.
3. The duty of the treating physician is to care for the person who, in becoming a patient, has entrusted that the physician will seek their well-being and best interests in matters of sickness and health and that duty to care is expressed by unfettered loyalty to those concerns. The duty to care does not include the duty to provide care that the patient refuses or that the treating physician judges as medically ineffective.
4. For the treating physician, the duty of stewardship of scarce resources is subordinate to the duty to care for the patient.
5. Under conditions of crisis-induced scarcity and while under declaration and dispositions specified by government, adjudication of competing claims for life-sustaining resources

70. American Medical Association, “Physician Stewardship of Health Care Resources,” in Code of Medical Ethics of the American Medical Association (Chicago: The American Medical Association, 2017), 183–84.
71. Frederick J. White III, “The Prioritization of Life-Saving Resources in a Pandemic Surge Crisis,” Issues in Law & Medicine 35.1 (2020): 143–60.
72. Wen Ting Siow et al., “Managing COVID-19 in Resource-limited Settings: Critical Care Considerations,” Critical Care 24.1 (April 22, 2020): 167.
should be made by an authority other than that of the treating physician. Such authority may rest in a properly designated triage officer or team.

6. In adjudication of competing claims to life-sustaining resources, allocation of such resources is to be made by medical judgment informed by objective evidence and should be done by defined processes that are fair, just, and socially non-discriminatory. Such decisions should be clearly communicated to the patient or their decision-maker.

7. The claim to a life-sustaining resource, once allocated, persists.

8. When the treating physician concludes that a patient has reached a point of terminal and irreversible illness with no reasonable hope of recovery, the physician should counsel the patient or their decision-maker of that conclusion.

9. At the point of terminal and irreversible illness with no reasonable hope of recovery or upon proper request by the patient or their decision-maker, life-sustaining care and resources may be consensually withdrawn.

10. The reallocation of life-sustaining care or resources, here defined as the non-consensual taking or removal of life-sustaining care or resources from a patient, may not be done when accompanied by the intent that the patient will die or the knowledge of substantial risk that the patient will die.

11. Under the condition of crisis-induced scarcity, the reconfiguration of life-sustaining resources and care, here defined as repurposed or altered use of resources for life-sustaining care, may be performed with the goal of saving the life of a patient, even if such reconfiguration results in suboptimal benefit of the care or resource or increased risk to the patient, so long as the reconfiguration is done without the intent that the patient will die or the knowledge of substantial risk that the patient will die.

Author biography

Frederick J. White III practices cardiology in Shreveport, Louisiana. He completed his MD in 1982 at the LSU Health School of Medicine-Shreveport and completed residency training in Internal Medicine at the University of Arkansas for Medical Sciences and fellowship training in cardiology at the Vanderbilt Medical Center, where he served as an Instructor in Medicine and the Chief Fellow in Cardiology. White is certified by the American Board of Internal Medicine in both Internal Medicine and Cardiovascular Diseases and is a Fellow of the American College of Cardiology and the American College of Chest Physicians. He holds the Certificate in Health Care Ethics from the National Catholic Bioethics Center and is a Certified Healthcare Ethics Consultant by the HCEC Certification Commission of the American Society for Bioethics and Humanities. He is a member of the medical staff of the Willis-Knighton Medical Center and served as Chair of the Institutional Ethics Committee for 20 years.