Crisis Standards of Care and Triage: Medico-Legal Conundrums

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ABSTRACT

This Article investigates the character, nature, and application of Crisis Standards of Care ("CSC") in national emergency preparedness plans. Ideally, these standards allow a government to codify frameworks or models for allocating scarce medical resources. The principal mechanism used by healthcare decision-makers to evaluate individuals seeking medical assistance is through *triage*—a diagnostic process utilizing algorithms to sort, grade, or select those who "qualify" for medical treatment. This Article studies the principles and values incorporated into these medical algorithms and concludes that more federal government leadership is required to convince the states that CSC are an integral part of emergency preparedness; and, secondly, that diagnostic algorithms must be used in an equitable manner that does not discriminate among the medically injured, the aged, or those with comorbidities.

Table of Contents

I.	INTRO	DUCTION AND OVERVIEW	752
II.	THE SO	COPE OF PUBLIC HEALTH ETHICS	756
	A.	Ethical Discrimination in Triage	756
III.	THE ST	TRENGTHS AND WEAKNESSES OF CRISIS STANDARDS OF CARE	759
	A.	Fuzzy Sets and Medical Resource Allocation	762
		Emergency Medicine and Critical Care	
		Other Diagnostics of Injury: Heuristics, Gestalt, and Medical	
		Futility	765
		1. Heuristics	765
		2. Gestalt Theory	765

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		3. Medical Futility	.766
IV.	Effor'	TS TO ESTABLISH A NATIONAL STANDARD FOR MASS CASUALTY	
	TRIAG	E	.766
	A.	Federal Government Responses	.769
	B.	The National Academy of Medicine's COVID-19 Evaluation	.769
	<i>C</i> .	Toward a Uniform Standard of Casualty and Resource Triage	.770
	D.	FICEMS Core Criteria	.771
	E.	International Clarifications	.772
V.	CONCL	USIONS	.774

I. INTRODUCTION AND OVERVIEW

The COVID-19 pandemic is seen, properly, as "the most serious public health crisis since the global influenza pandemic a century ago." To meet the greatest challenge to healthcare decision-making when catastrophes occur, it is crucial to establish a process for deliberations concerning the rank and allocation of scarce medical resources—with the goal of making fair and "good decisions." In meeting this challenge and attaining this ultimate goal, individual clinical decision-makers and collective healthcare policymakers must be guided by clear, precise, and equitable standards. However, these standards are often delegated to administrative agencies for determination. The fundamental question in the process of medical resource allocation is whether reliance should be placed on risk-benefit vectors of economic force in the market for reaching allocation decisions or whether making selections of treatments and of recipients is a fair and just selection and distribution process for limited

^{1.} Jonathan L. Entin, Over the Top: Judges, Lawyers, and COVID-19 Rhetoric, 31 HEALTH MATRIX 51, 62 (2021); see generally Evan D. Anderson & Scott Burris, Imaging a Better Public Health (Law) Response to COVID-19, 56 U. RICH. L. REV. 955 (2022).

^{2.} JAY KATZ & ALEXANDER MORGAN CAPRON, CATASTROPHIC DISEASES: WHO DECIDES WHAT? 166 (1975); see John L. Hick et al., Crisis Standards of Care and COVID-19: What Did We Learn? How Do We Ensure Equity? What Should We Do?, NAT'L ACAD. MED. PERSPS., (Aug. 30, 2021). Because of the complexity in administering emergency response systems, and to enable "good" decision-making, the National Academy of Sciences urges advanced planning for use of the whole system of emergency service by developing Crisis Standards of Care. See generally NAT'L ACAD. OF SCI., INST. OF MED., CRISIS STANDARDS OF CARE: A TOOLKIT FOR INDICATORS AND TRIGGERS (Dan Hanfling et al. eds., 2013) [hereinafter TOOLKIT]; James G. Hodge Jr. et al., COVID's Constitutional Conundrum: Assessing Individual Rights in Public Health Emergencies, 88 TENN. L. REV. 1 (2021)

^{3.} *See* Katz & Capron, *supra* note 2, at 189; George J. Annas, Standard of Care: The Law of American Bioethics (1997); George P. Smith, II, Distributive Justice and the New Medicine 17–40 (2008).

^{4.} See KATZ & CAPRON, supra note 2, at 188–89; see generally James G. Hodge, Jr. & Erin Fuse Brown, Assessing Liability for Health Care Entities that Insufficiently Prepare for Catastrophic Emergencies, 306 JAMA 308 (2011).

medical resources.⁵ Attempting to develop a calculus or algorithm to totally compensate for societal inequalities in healthcare administration is nearly impossible.⁶ Regrettably, the United States has not ratified a clear, nationwide plan for allocating medical resources during mass casualties.⁷

When there is no state activation plan for operable CSC during state, regional, or national emergencies, hospitals and medical care clinicians must make triage decisions for medical resources and crisis casualties.⁸ Whenever "demand exceeds supply," triage will routinely occur *without* the benefit of sophisticated allocation plans.⁹

- 5. See Katz & Capron, supra note 2, at 178–84; see generally Medical Ethics and Economics in Health Law (Gavin Mooney & Alistair McGuire eds., 1988) [hereinafter Medical Ethics]; Anita Franklin, Health Equities and Disparities (2023); Simmy Grover et al., Preference for Scarce Medical Resource Allocation: Differences Between Experts and the General Public and Implications for the COVID-19 Pandemic, 25 Brit. J. Health Psych. 889, 889 (2020); Micaela Pinho, Public Preferences for Allocating Absolute Scarce Critical Healthcare Resources During the COVID-19 Pandemic, 35 J. Health Org. & Mgmt. 964 (2021).
- 6. See Hannah Knowles, Hospitals Overwhelmed by COVID are Turning to 'Crisis Standards of Care.' What Does That Mean?, Wash. Post (Sept. 22, 2021), https://perma.cc/J7L3-94KT; see generally Gary Lawson, Ordinary Powers in Extraordinary Times: Common Sense in Times of Crisis, 87 B.U. L. Rev. 289 (2007); RICHARD A. EPSTEIN, PRINCIPLES FOR A FREE SOCIETY: RECONCILING INDIVIDUAL LIBERTY WITH THE COMMON GOOD (2000).
- 7. See Knowles, supra note 6; Brian N. Fink et al., START versus SALT Triage: Which is Preferred by the 21st Century Health Care Student?, 33 PREHOSPITAL & DISASTER MED. 381 (Aug. 2018); see also E. Brooke Lerner et al., Mass Casualty Triage: An Evaluation of the Data and Development of a Proposed National Guideline, 2 DISASTER MED. PUB. HEALTH PREP. 25, 25 (2008).
- 8. See Anuj B. Mehta & Matthew K. Wynia, Crisis Standards of Care-More Than Just a Thought Experiment?, 51 HASTINGS CTR. RPT. 53, 54-55 (2021); see also Hick et al., supra note 2. The Model Public Health Emergency Authority Act was enacted by the Uniform State Laws Commission in October 2023. See Model Pub. Health Emergency AUTH. ACT (UNIF. L. COMM'N 2023). This proposal specifies the powers and limitations that state governors may exercise during a health emergency. Id. These powers can be exercised for 45 to 90 days initially, but they are subject to unlimited renewals. Id. Any actions undertaken must be based on a "rational basis." Id. More than 750 legislative bills limiting gubernatorial emergency powers and the powers of state health officers were introduced in the 2020 and 2021 state legislative sessions—with about 70 of these bills being enacted in 25 states. Maggie Davis et al., Emergency Powers and the Pandemic: Reflecting on State Legislative Reforms and the Future of Public Health Response, 21 J. EMERG. MGMT. 1, 6 (2023). Some of the laws expanded "legislative oversight of public health emergency responses, while others expressly limited the powers of the governor and state health officials." Id. Other laws established processes for state attorneys general to determine the constitutionality of federal actions or prohibit state compliance. Id. For example, Arkansas granted powers to a state legislative council to review state board of health (emergency) decisions with authority to terminate these decisions if the council determines a decision is unreasonable. See S.B. 379, Ark. 2020.
- 9. Mehta & Wynia, *supra* note 8, at 54; *see* William A. Haseltine, *America's New Triage: Covid Crisis Standards of Care*, FORBES (Oct. 6, 2021), https://perma.cc/Z8RM-L5F5 (commenting that invoking CSC is a clear admission that a particular health system is "overwhelmed").

The goal of CSC is to codify—to the extent possible—an equitable framework for states to use scarce medical resources (for example, hospital beds, critical equipment such as ventilators, and professional staff). Twenty-nine states have CSC, with the remaining 21 states either developing standards of care or choosing not to undertake action. Despite the wide variety of 18 CSC models, one study found the following: all 28 states having adopted CSC include a clear statement that ethical principles are applicable; 15 states list equity as a guiding principle; 19 states do not allow race, ethnicity, and other identity broad factors to be considered in CSC decision-making; ten states allow consideration of the social value of healthcare workers and other essential healthcare personnel which would result in prioritization of distributions of healthcare resources; and 21 states list specific strategies for establishing patient priorities for use of critical care resources such as ventilators and responses to be given to sequential organ failures.

Today's on-going social debate over the extent to which lifesustaining medical assistance should be administered focuses on three specific questions: first, does the medical profession have only a limited obligation to save and/or prolong life; second, whose views and value systems (patient or physician) are determinative; and third, is there a type of "national" recognition (in other words, a doctrine of medical futility¹³) which validates medical determinations that the benefits of medical treatment can be outweighed by the burdens associated with the treatment itself?¹⁴ Undergirding these three fundamental concerns is the extent to which there is a dialogue and a didactic between the medical profession and society over the nature of life-sustaining medical assistance and the

^{10.} See generally Emily C. Manchanda et al., Crisis Standards of Care in the USA: A Systemic Review and Implications for Equity Amidst COVID-19, 8 J. RACIAL ETHNIC HEALTH DISPARITIES 824 (2020).

^{11.} *Id.* Interestingly, fewer than half of the hospitals in the United States have developed their own individual CSC. *See id.*

^{12.} See generally id.; Andrew Peterson et al., Ethics of Reallocating Ventilators in the COVID-19 Pandemic, 369 Brit. Med. J. m1828 (2020); Ezekiel J. Emanuel et al., Fair Allocation of Scarce Medical Resources in the Time of Covid-19, 382 New Eng. J. Med. 2049 (2020); Jeffrey Silberzweig et al., Rationing Scarce Resources: The Potential Impact of COVID-19 on Patients with Chronic Kidney Disease, 31 J. Am. Soc'y Nephrology 1926 (2020). One study found 18 available plans or models for either triggering crisis care or for available use. See Toolkit, supra note 2, at 64.

^{13.} See generally George P. Smith, II, Futility and the Principle of Medical Futility: Safeguarding Autonomy and the Prohibition Against Cruel and Unusual Punishment, 12 J. Contemp. Health L. & Pol'y 1 (1995).

^{14.} See George P. Smith, II, Euphemistic Codes and Tell-Tale Hearts: Human Assistance in End-of-Life Cases, 15 HEALTH MATRIX 175, 181 (2000).

standards of justice, 15 both of which guide its very application in the distribution of medical resources. 16

Part I lays the predicate for investigating the process of allocating scarce medical resources during national emergencies such as COVID-19: namely, the effect that a "codification" of state and national CSC would have in establishing an equitable framework for the distribution of these resources.¹⁷

Part II begins an in-depth analysis of the challenges and conflicts over ethical decisions that arise when public health values attach to principles of autonomy and threaten to "compromise" patient-centered clinical care policies. In this context, the Principle of Distributive Justice comes into clear focus.¹⁸

Part III commences an incisive analysis of the components of CSC and how emergency medicine uses diagnostic and prognostic "tools," or algorithms, to determine the standard of patient care arising from the limited medical resources available through the process of triage. 19 Classification of patients based on the nature and consequences of their injuries relies extensively on algorithms that act as risk models for predicting the course of care needed to prevent mortality. 20 Part III also briefly considers three other tools or models used separately and apart from algorithms: heuristics, clinical gestalt, and medical futility—all drawn from anecdotal or experiential medical experiences. 21

Part IV studies the federal government's leadership efforts to educate the states of their need to adopt CSC through emergency preparedness plans.²² Part IV also examines the complexities of administering CSC, largely resulting from uncertainties and inaccuracies in applying diagnostic algorithms formulated to determine which patients need to be triaged.²³ This Part then evaluates various national and international recommendations to strengthen patient selection and thereby provide an equality of opportunity for a larger number of injured individuals.²⁴

^{15.} See generally George P. Smith, II, Social Justice and Health Care Management: An Elusive Quest, 9 HOUSTON J. HEALTH L. & POL'Y 1 (2008).

^{16.} See, e.g., Edmund D. Pellegrino, Rationing Health Care: The Ethics of Medical Gatekeeping, 2 J. Contemp. Health L. & Pol'y 23 (1986); Smith, Social Justice and Health Care Management, supra note 15, at 10–12; George P. Smith, II, Variables in Health Care Policy Making: Resolving a Quandary, 16 J. L & MED. 52 (2009).

^{17.} See infra Part I.

^{18.} See infra Part II.

^{19.} See infra Part III.

^{20.} See infra Part III.

^{21.} See infra Sections III.C.1-3.

^{22.} See infra Part IV.

^{23.} See infra Part IV.

^{24.} See infra Sections IV.A-E.

Part V compares competing ideas for providing the highest level of medical care during national healthcare emergencies.²⁵ Acknowledging the inherent gatekeeping conflicts that physicians encounter in managing scarce healthcare resources, Part V concludes that evidence-based guidelines are the most objective selection standards available.²⁶

II. THE SCOPE OF PUBLIC HEALTH ETHICS

When studying public health ethics, a public perspective must investigate the nature and character of groups and the distribution of scarce social resources within these groups. Almost invariably, some of the contemporary challenges in society itself involve complex issues such as medical experimentation, physician-assisted suicide, and assisted reproduction and must be examined from both individual and public health perspectives. Individual and social interests coming into conflict raises additional conflicts between medical ethics and public health. The challenge then becomes achieving a proper balance between the public interest and the interests of individual persons and the limits of state action in limiting the liberty of individuals. This challenge to public health and its pervasive social outreach demands on-going study and evaluation of the health effects of institutional arrangements together with the prevailing structures of cultural attitudes and social power.

A. Ethical Discrimination in Triage

Claims of ethical discrimination arise inherently when inadequate triage protocols either classify disabilities "as a contraindication to receiving scarce resources" or categorize people for withdrawal of mechanical ventilators based on levels of cognitive disability.³² In an effort

- 25. See infra Part V.
- 26. See infra Part V.
- 27. See Ronald Bayer & Amy L. Fairchild, The Genesis of Public Health Ethics, 18 BIOETHICS 473, 475–92 (2011).
- 28. See, e.g., Nancy E. Kass, An Ethics Framework for Public Health, 91 Am. J. Pub. Health 1776 (2001).
- 29. See generally id.; Steven S. Coughlin, How Many Principles for Public Heath Ethics, 1 J. Open Health 8 (2004); Edmund D. Pellegrino, Patient and Physicians Autonomy: Conflicting Rights and Obligations in the Physician-Patient Relationship, 10 J. Contemp. Health L. & Pol'y 47 (1994).
- 30. Bioethics—with its emphasis on moral values and autonomy—can be problematic when juxtaposed against public health values which mandate balancing paternalism, maintenance of the common good, and social justice with individualism. See Bayer & Fairchild, supra note 27, at 488; see generally Jorge E. Galva et al., Public Health Safety and The Police Power of the State, 120 Pub. Health Rep. 20 (2005).
 - 31. Anderson & Burris, supra note 1; see generally Kass, supra note 28.
- 32. Peterson et al., supra note 12, at *2; see also Nancy Berlinger et al., Ethical Framework for Health Care Institution & Guidelines for Ethics Services Responding to the Coronavirus Pandemic: Managing Uncertainty, Safeguarding Communities, Guiding

to prevent triage policies that have the effect of discriminating among patients, some countries, such as the United Kingdom, have modified triage guidelines to prevent the exclusion of those with disabilities from admission to intensive care.³³ The triage policies of healthcare systems can mitigate discriminatory practices "by ensuring that each patient is assessed individually and the results [are] used to make a transparent, evidence based prognosis."34 Individual assessments may, however, justify both the withdrawal and reallocation of ventilators if individual cases of preexisting disabilities prevent hospital resources from being utilized "to their best effect" by denying reallocation of ventilators from those with poorer prognoses to others with better prognoses.³⁵ To prevent discriminatory decisions in cases of triage, "independent triage teams" can engage and undertake the responsibility "for repeatedly assessing patient[]" priority.³⁶ If a ventilator is used, the affected patient and their familial advisors should be informed of the fact that the use of a ventilator at one time is not an "unlimited promise," but rather a "time-limited therapeutic trial."37

For a Principle of Distributive Justice to operate in shaping the policies and practices of distributing scarce medical resources, it is necessary to establish a model for distribution that is fair and allocates healthcare resources in a manner that does not accept the notion that a disproportionate share of the medical benefits or burdens is focused on particular individuals or groups.³⁸ Two fundamental issues arise when this principle is respected: (1) the order in which individuals receive scarce medical resources and (2) which decision-makers are authorized to

Practice, Hastings Ctr. (March 16, 2020), https://perma.cc/6P3H-FKRY; see generally Robert D. Truog, Ventilator Allocation Protocols: Sophisticated Bioethics for an Unworkable Strategy, 51 Hastings Ctr. Rpt. 56 (Sept.—Oct. 2021); George P. Smith, II, Bioethics and the Law: Medical, Socio-Legal and Philosophical Directions for A Brave New World, Ch. 3 (1993); George P. Smith, II, The Ethics of Ethics Committees, 6 J. Contemp. L. & Pol'y 157 (1990).

- 33. See Peterson et al., supra note 12.
- 34. Id. at *2.
- 35. *Id*.
- 36. *Id*.

^{37.} Douglas B. White & Bernard Lo, A Framework for Rationing Ventilators and Critical Care Beds During the COVID-19 Pandemic, 323 JAMA NETWORK 1773, 1774 (2020). In the United States, complaints against "discriminatory" policies under some triage protocols have been filed with the U.S. Department of Health and Human Services under the Americans with Disabilities Act. See OCR Issues Bulletin on Civil Rights Laws and HIPAA Flexibilities that Apply During the COVID-19 Emergency, U.S. DEPT. HEALTH & HUMAN SERVS. (Mar. 28, 2020), https://perma.cc/F55T-NPY8.

^{38.} See George P. Smith, II, Re-Shaping the Common Good in Times of Public Health Emergencies: Validating Medical Triage, 18 Annals Health L. 1, 14 (2009) [hereinafter Re-Shaping the Common Good]; see generally Smith, Euphemistic Codes, supra note 14; Epstein, supra note 6; George P. Smith, II, Distributive Justice and The New Medicine (2008).

determine who receives the (limited) medical resources and who, consequently, must be excluded.³⁹

Essentially, four egalitarian orders of practice for equitable distribution of healthcare resources may be utilized: a first come, first served basis;⁴⁰ randomized selection;⁴¹ triage algorithms;⁴² and policies designed to save no one.⁴³ As many people saw during the height of the COVID-19 pandemic, the pandemic strained severely the American healthcare system,⁴⁴ with inevitable questions arising on whether the CSC and triage of medical resources and healthcare practitioners were fair and equitable.⁴⁵ For utilitarians, this presents an ethical conundrum best "resolved" by acceptance of the ethical norm—indeed, moral theory—that action which provides the greatest good to the greatest number should be taken, and rejection of the challenge of attempting to treat all citizens equally as simply impossible.⁴⁶

^{39.} See Smith, Re-Shaping the Common Good, supra note 38, at 14; Pellegrino, Rationing Health Care, supra note 16, at 38; see generally John Kilner, Who Lives? Who Dies? Ethical Criteria In Patient Selection (1990).

^{40.} See George P. Smith, II, Triage: Endgame Realties, 1 J. Contemp. Health L. & Pol'y 1, 14–17 (1985).

^{41.} See Smith, Re-Shaping the Common Good, supra note 38, at 14–15.

^{42.} See generally Hayley B. Gershengorn, et al., Assessment of Disparities Associated with a Crisis Standards of Care Resource Algorithm for Patients in 2 U.S. Hospitals During the COVID-19 Pandemic, 4 JAMA NETWORK OPEN 1 (Mar. 19, 2021) (finding that in a study of over 1000 hospitalized patients in Miami, Florida, CSC was not seen clearly as a tool for discriminating patient care based on race or on ethnicity); White & Lo, supra note 37, at 1774; Douglas B. White et al., A Framework for Rationing Ventilators and Critical Care Beds During the COVID-19 Pandemic, 323 JAMA 1773 (2020), https://perma.cc/CDA6-KXW9.

^{43.} See Smith, Re-Shaping the Common Good, supra note 38, at 15; RICHARD A. POSNER, NOT A SUICIDE PACT 5 (2006); see generally WILLARD GAYLIN, ET AL., THE PERVERSION OF AUTONOMY: THE PROPER USE OF COERCION AND CONSTRAINTS IN A LIBERAL SOCIETY (1996).

^{44.} See Knowles, supra note 6; Anderson & Burris, supra note 1.

^{45.} See e.g., Emanuel et al., supra note 12; Hans Flaatten, The Good, The Bad and The Ugly: Pandemic Priority Decisions and Triage, 47 J. MEDICAL ETHICS 1 (2020); Melissa Alexander, Distributive Justice and Racial Health Equity: What COVID-19 Teaches About Medicare's Blanket Priority for American of Advanced Age, 15 U. MEMPHIS L. REV. 2 (2021); Smith, Social Justice and Health Care Management, supra note 15; Pellegrino, Patient and Physicians Autonomy, supra note 29. Another view is that the goal of healthcare is to create as many years of healthy (in other words, quality) life ("QALYs") as possible for as many as possible but without putting a value on life per se. See SMITH, supra note 38, at ch.2.

^{46.} See generally Julian Savulescu, et al., Utilitarianism and the Pandemic, 34 BIOETHICS 620 (2020). In character, and in definition, almost all healthcare distribution decisions are utilitarian. See George P. Smith, II, Policy-Making and The New Medicine: Managing a Magnificent Obsession, 3 J HEALTH & BIOMEDICAL L. 303, 309 (2007). Utilitarianism is generally regarded as the preferred basis for bioethical decision-making. See JONATHAN BARON, AGAINST BIOETHICS 25–50 (2006). Some suggest "moral intuitions" should be in play during the decision-making process for rationing ventilators and critical care beds. See White & Lo, supra note 37; D. Carr et al., Equity First: Conceptualizing a

III. THE STRENGTHS AND WEAKNESSES OF CRISIS STANDARDS OF CARE

CSC is a fundamental component of any pandemic preparedness program. In its simplest form, these standards are viewed as "the guidelines for the allocation of resources if those resources are too scarce to meet the needs of all patients." CSC is not exclusively an issue of managing triage. Rather, the central focus of CSC is "to avoid the need for triage initially" by exchanging data and resources throughout the private healthcare systems in any given state. A high degree of collaboration is required when coordinating patient transfers among hospitals and medical resources (for example, ventilators) to various hospitals and care units in various cities and states.

Activating CSC plans triggers the implementation among hospital systems of "load-sharing strategies" that activate triage teams together with the use of "codified" algorithms to guide decision-making regarding which patients will be allowed to receive and use scarce resources and which patients do not qualify for any resources.⁵² It is important to

Normative Framework to Assess the Role of Per-Emption in Public Health, 98 MILBANK Q. 131 (2020).

- 47. See Truog, supra note 32, at 57. There are varying definitions of CSC. For an analysis of nine state positions, see James G. Hodge, Jr. et al., Navigating Legislation in Crisis Standards of Care, 25 J. HEALTH CARE L. & POL'Y 171, 185–86 (2022).
- 48. Gregory E. Kaebnick, *Editorial Comment, The Crisis in Standards of Care*, 51 HASTINGS CNTR. RPT. 2, 2 (Sept. 16, 2021).
 - 49. See Mehta & Wynia, supra note 8, at 55.
- 50. *Id.* Under the Health Insurance Portability and Accountability Act (HIPPA), privacy regulations restrict the sharing of confidential patient medical records. *See* 42 U.S.C. § 1320d-9 (1986). These privacy regulations become problematic when patients—for example, those with COVID-19—are transferred from admitting hospitals to subsidiary hospitals where full treatment and stabilization may be provided. Waivers of this confidentiality requirement may be obtained in public emergencies. *COVID-19 & HIPPA Bulletin, Limited Waiver of HIPPA Sanctions and Penalties During a Nationwide Public Health Emergency*, HHS (Mar. 2020), https://perma.cc/QUH7-5C6M.
- 51. See Mehta & Wynia, supra note 8, at 55. The Emergency Medical Treatment and Labor Act ("EMTALA") requires all hospitals with emergency departments, and which participate in the Medicare program, to follow an EMTALA provision mandating that a medical screening examination be given to anyone presenting at an emergency department to determine whether the individual has an emergency condition which must be treated and stabilized. See 42 U.S.C. § 1395dd (1986). If the presenting hospital is unable to meet the patient's medical needs, the patient is to be transferred to a healthcare facility that is capable of meeting the patient's medical needs. Id. The Secretary of Health and Human Services may waive this EMTALA mandate under Section 1135 of the Social Security Act when the Secretary declares a public health emergency and the president declares a national emergency. See U.S. Dep't of Health and Human Services, ASPR TRACIE Fact Sheet: EMTALA and Disasters (May 7, 2018), https://perma.cc/ZDA7-PEWJ.
- 52. Mehta & Wynia, *supra* note 8, at 55. A handful of states have made formal CSC declarations. *See* THE COVID CRISIS GROUP, LESSONS FROM THE COVID WAR 196 (2023); *see also* Alexander, *supra* note 45; *see generally* Elizabeth Platt et al., *Trends in US State*

understand that CSC policies alone do not serve as a trigger for activation and use of triage because "triage is ultimately a simple function of supply and demand." Accordingly, if an urgent need for ten ventilators arises, but only five ventilators are available and patient transfers are not feasible, triage occurs whether or not activated by CSC plans and thus determines which five patients receive ventilators. When resource scarcity exists, the use of triage "represents a fundamental failure of [CSC] systems designed to protect patients, clinicians, healthcare systems, and society [as a whole]."

CSC activation serves as an "encouragement" for hospitals and clinicians to use a uniform template, or set of algorithms, for determining how to allocate scarce medical resources among patients.⁵⁶ Without a codified algorithm or other template for decision-making, triage decisions are based upon "a triage scoring system" or, quite likely, on "clinical gestalt by bedside clinicians forced to make tragic choices" without the benefit of "clinical, legal, or physiological" support that would have been provided by accepting CSC.⁵⁷ Some evidence drawn from the COVID-19 pandemic suggests that patients might have been "covertly triaged explicitly or implicitly," without CSC activations, and these decisions were based "primarily by [patient] age."58 Surprisingly, Arizona appears to be "the only state to [have] 'activate[d]' CSC for hospital and ventilator triage" during the COVID-19 pandemic.⁵⁹ The state activation notice, however, allowed individual hospitals in Arizona to decide whether to utilize triage rather than allow the governor to be the primary policy decision-maker.⁶⁰ Not surprisingly, creditable data in and among other states shows that without any activation of CSC, the states have

Public Health Emergency Laws, 2021-2022, 113 Am. J. Pub. Health 114 (2023), https://perma.cc/JQP2-PHPE.

- 54. See Mehta & Wynia, supra note 8, at 54.
- 55. *Id*.

- 57. Mehta & Wynia, *supra* note 8, at 54–55.
- 58. *Id.* at 54. In Italy, during the peak of COVID-19, the country recommended that those over the age of 65 should neither be allocated scarce medical resources nor be given intensive care. *See generally* Thomas May & Mark P. Aulisio, *Age, "Life-Cycles," and the Allocation of Scarce Medical Resources*, 158 CHEST 1837, 1837 (Nov. 2020).
- 59. Mehta & Wynia, *supra* note 8, at 54. It was often exceedingly difficult to determine whether a crisis existed in specific geographic areas within a state over the use of particular healthcare resources. *See* THE COVID CRISIS GROUP, *supra* note 52.
 - 60. See Mehta & Wynia, supra note 8, at 54.

^{53.} Mehta & Wynia, *supra* note 8, at 54. Triage should always be based on defined clinical-prognostic parameters. *See generally* Gianluca Mortanari Vergallo et al., *COVID-19:When Health Care Resources Run Short, How to Pick Who Should (Not) Get Treated?* 92 ACTA BIOMED E2021372 (2021).

^{56.} See id. at 55. The Charlson Comorbidity Index ("CCI") is a helpful resource which predicts ten-year survival rates for patients with multiple co-morbidities. See Mary Charlson, Charlson Comorbidity Index (CCI), MD+ CALC, https://perma.cc/9MJS-UTFZ (last visited Jan. 16, 2024).

unilaterally triaged scarce medical resources.⁶¹ It is important to understand that the federal government issuing a federal public health emergency declaration does not mean that the states are required to make such a declaration, nor *vice versa*, that the federal government must follow state declarations of emergency.⁶²

The American Medical Association's ("AMA") triage decisionmaking guidance urges healthcare decision-makers to pursue a number of actions in order to develop policies that derive from critera related only to medical need and not social worth. In order to set this policy, an initial determination of needs-based critera—drawn fundamentally from benefits of treatment and the avoidance or premature death—should be in place before allowing consideration of treatement benefits subsequent to a recovery. Determining criteria for establishing medical need and minimizing bias based on a principle of transparency should be implemented by, for example, random choice or by lottery. In order to enhance whatever goal of care has been set and allow for withdrawl of treatment when the goal is unattainable, re-assessments of life-sustaining treatment must be made on a regular basis. Thorough explanations of the processes to provide palliative care in cases in which treatments to sustain life are withheld or withdrawn should be given routenly.⁶³ Central to this guidance by the AMA is acknowledgment that physicians have a responsibility to appreciate that they must always accept the role of being "prudent stewards of limited societal resources."64

^{61.} See id.

^{62.} See TOOLKIT, supra note 2; see also Hodge, Jr. et al., Navigating Legislation in Crisis Standards of Care, supra note 47. Interestingly, in 35 states, governors are permitted to amend or suspend both public health statutes and preparedness plans and regulations during public emergencies. Seven other state governors are—during such emergencies—allowed to amend health preparedness regulations, but do not have authority to modify or negate public health statutes. Eight additional states—including the District of Columbia—confer no explicit authority to governors to change statutes or regulations during declared emergencies. See Gregory Sunshine et al., An Assessment of State Laws Providing Gubernatorial Authority to Remove Legal Barriers to Emergency Responses, HEALTH SEC. (Apr. 19, 2019), https://perma.cc/54SC-96KK; Davis et al., supra note 8; MODEL PUB. HEALTH EMERGENCY AUTH. ACT, supra note 8; see generally Owen Gross, Chaos, & Rules: Should Responses to Violent Crises Always Be Constitutional?, 112 YALE L. J. 1011 (Mar. 2003).

^{63.} See Crisis Standards of Care: Guidance from the AMA Code of Medical Ethics, Am. Med. Ass'n (Apr. 5, 2020), https://perma.cc/8267-VTSA (first citing Allocating Limited Health Care Resources: Code of Medical Ethics Opinion 11.1.3, Am. Med. Ass'n; and then citing Withholding or Withdrawing Life-Sustaining Treatment Opinion 5.3, Am. Med. Ass'n).

^{64.} Id. (citing Physician Stewardship of Health Care Resources Opinion 11.1.2, Am. Med. Ass'n). See generally George P. Smith, II, Setting Limits: Medical Technology and The Law, 23 Sydney L. Rev. 283 (2001).

A. Fuzzy Sets and Medical Resource Allocation

The pathbreaking work of L.A. Zadeh in 1965 explicating "fuzzy sets," or "a class of objects with a continuum of grades of membership," "for the ultimate purpose of developing an order selection for mathematical frameworks," has also been used as a basis for studying pattern classification and information processing for medical resource allocation. 65 When allocating scarce medical resources, such as hospital ventilators to manage severe pulmonary pathology, practical and ethical recommendations are required. 66

In a recent study, researchers examined five specific ethical principles, all consistent with World Health Organization (WHO) guidelines and present state-of-the-art practices, to determine the extent to which medical resource allocations are inextricably tied to one or more of these principles.⁶⁷ The principles studied were "anti-discrimination, prioritize the worst off, social effects, patient's history[,] and clinical evidence." Under the fuzzy framework, patients receive a weighted value under each principle.⁶⁹ Accordingly, if a patient satisfies multiple principles, that patient will receive a higher overall rank and thus qualify for scarce medical resources.⁷⁰ Unsurprisingly, clinicians routinely combine more than one principle in their decision-making process. The fuzzy system's "output" is a "weighted value." In other words, this

^{65.} L.A. Zadeh, Fuzzy Sets, 8 Inf. & Control 338, 339 (1965); see generally Heba Saadeh et al., Whom Should Be Saved? A Proposed Ethical Framework for Allocating Scarce Medical Resources to COVID-19 Patients Using Fuzzy Logic, 8 Frontiers Med. 600415 (Mar. 22, 2021), https://perma.cc/3E7Q-7LQE; HANS J. ZIMMERMAN, FUZZY SET THEORY AND ITS APPLICATIONS (4th ed. 2015).

^{66.} See generally Adan A. Hyder, Allocating Medical Resources in Time of COVID-19, 382 N. Eng. J. MED. 2049 (May 28, 2020); see also Emanuel et al., supra note 12; May & Aulisio, supra note 58.

^{67.} See Saadeh et al., supra note 65. Another study found that a key standard of any ethical construct should include seven principles: fairness; a duty to care; a duty to steward resources; transparency; consistency; proportionality; and accountability. See INST. OF MED., CRISIS STANDARDS OF CARE: A SYSTEMS FRAMEWORK FOR CATASTROPHIC DISASTER RESPONSE 1, 72 (Dan Hanfling et. al., 2012). Interestingly, the WHO's International Health Regulations, which are legally binding and seek to enable the WHO to declare and coordinate global responses to health emergencies, lack clarity—especially regarding the scope of state obligations to co-operate with each other and the enforcement of these obligations. Revisions of these regulations are currently being considered. See Working Group on Amendments to the International Health Regulations (2005), WORLD HEALTH ORG. (2005), https://perma.cc/J26M-AXK7; see also Lawrence O. Gostin et al., The UN's Political Declaration of Pandemics: What Should Happen Next?, HEALTH AFFAIRS (Oct. 23, 2023), https://perma.cc/7BJ8-KJ8K; Lawrence O. Gostin & Rebecca Katz, The International Health Regulations: The Governing Framework for Global Health Security, 54 MILBANK Q. 264 (May 11, 2016).

^{68.} Saadeh et al., supra note 65.

^{69.} See id.

^{70.} See id.

^{71.} *Id*.

framework's input is found in the ethical principles identified, and the output "is a weighted value" per patient. Furthermore, fuzzy frameworks have the capacity to "prioritize" these ethical principles in different settings and can even serve as a modified algorithm for both present and future pandemics. ⁷³

B. Emergency Medicine and Critical Care

Emergency medicine is a field of practice with a primary objective, put simply, to "minimize early mortality and complications." Specifically, in this practice, healthcare providers undertake efforts to prevent, diagnose, and manage both acute and urgent aspects of illness and injuries to patients who present with undifferentiated physical and behavioral disorders. When confronted with medical emergencies requiring expedient decisions, some physicians will make diagnoses intuitively, deriving from experiences or perceptions, rather than rational *in situ* deductive reasoning. However, the vast majority of clinical decision-making cases derive from actual experimental knowledge.

About 20% of all Americans are in intensive care when they die,⁷⁸ and even more than 20% of patients receiving intensive care are admitted to intensive care even though they have a low risk of functional recovery or survival.⁷⁹ Indeed, some researchers have posited that the set of medical decision-making tools used by healthcare providers is of marginal value—with about 35% of patients being harmed because of this situation.⁸⁰ The AMA Code of Medical Ethics clearly states that even though physicians

^{72.} *Id*.

^{73.} *Id.*; see generally G.S. Kachukhashvili et al., The Use of Fuzzy Sets Techniques on Managing Health Organizations, 8 MEDINFO 541 (1995).

^{74.} Robert West, Objective Standards for the Emergency Services: Emergency Admission to Hospital, 94 J. Royal Soc. Med. (Supp. 39) 4, 4 (2001); see generally Michael E. Winters et al., Emergency Department Resuscitation of the Critically Ill (2d ed. 2017); Anthony M. Napoli & Andy Jagoda, Clinical Policies: Their History, Future, Medical Legal Implications, and Growing Importance to Physicians, 33 J. Emerg. Med. 425 (2007); see also George P. Smith, II, Law and Bioethics: Intersections Along the Mortal Coil 107–37 (2012).

^{75.} See generally Robert E. Suter, Emergency Medicine in the United States: A Systematic Review, 3 World J. Emerg. Med. 5 (2012); George J. Annas, Standard of Care—In Sickness and in Health and in Emergency, 362 New Eng. J. Med. 2126 (2010); Jonathan E. Davis & Robert L. Norris, The Crashing Anaphylaxis Patient in Emergency Department Resuscitation of the Critically Ill, in Winters et al., supra note 74, at ch. 19.

^{76.} See Hidaya Aliouche, Heuristic Decision Making in Medicine, NEWS-MEDICAL.NET, https://perma.cc/C4H2-EVE7 (last visited Jan. 19, 2024); Carl Thompson, Clinical Experience as Evidence in Evidence-Based Practice, 43 J. ADV. Nurs. 230 (2003).

^{77.} See Thompson, supra note 76.

^{78.} See Pat Croskerry et al., Overconfidence in Clinical Decision-Making, 121 Am. J. Med. S24, S24 (2008).

^{79.} See id.

^{80.} See id.

owe a paramount responsibility to patients for whom care is provided, this commitment of fidelity is, "during public health emergencies," *counterbalanced* by the responsibility to protect the welfare of a defined population of patients within public emergencies.⁸¹

Various groups have made efforts to design a universal WHO framework for principled decision-making, and these efforts often yield an algorithm for determining whom to admit to hospital intensive care units for treatment of COVID-19.82 Once admitted to hospital care, the next challenge is to classify patients as having a "low, intermediate, high[,] or very high risk of death."83 This determination is made by considering or weighing eight predictor variable scores—all done with the goal of predicting and measuring in-hospital mortality risks.⁸⁴ These mortality risks may then, in turn, validate a risk score to predict patient mortality. Patients suffering from COVID-19 with severe respiratory syndrome⁸⁵ have especially high mortality rates due to respiratory failures.⁸⁶ Predictor variables (for example, age, sex, respiratory rates, and other comorbidities) will vary among hospitals, and this variability often gives rise to pernicious biases to vulnerable populations, such as the elderly, when selection criteria are determined.⁸⁷ In addition to using diagnostic and prognostic algorithms as risk models for predicting, diagnosing, and prognosing COVID-19 patients as having a high risk of death, there are three other potential "tools" that can affect the same goal: heuristics, 88 gestalt, 89 and the doctrine of medical futility. 90

^{81.} Crisis Standards of Care, supra note 63. Principle VIII in the AMA Code declares that "a physician shall, while caring for a patient, regard responsibility to the patient as paramount." *Id.*

^{82.} See Stephen R. Knight et al., Risk Stratification of Patients to Hospital with COVID-19 Using the ISARIC WHO Clinical Characterization Protocol: Development and Validation of the 4C Mortality Score, 370 Brit. Med. J. 3339, 3339 (2020). The complete style-iteration of the Protocol is International Severe Acute Respiratory and Emerging of Infections Consortium Clinical Characterization Protocol U.K. ("ISARIC CCP-UK"). See id.

^{83.} Id.

^{84.} See id.

^{85.} See Peterson et al., supra note 12.

^{86.} See Knight et al., supra note 82, at 3339.

^{87.} See id.

^{88.} See Dale F. Whelehan et al., Medicine and Heuristics: Cognitive Biases and Medical Decision-Making, 189 IR. J. MED. Sci. 1477, 1477–80 (2020).

^{89.} See generally M. Spagnuolo Lobb & G. Francesetti, Gestalt Therapy in Clinical Practice: From Psychopathology to Aesthetics of Control (2013); Hans Peter Dreitzel, Gestalt and Process (2010).

^{90.} See Li-Wei Chao et al., End of Life Medical Treatment Choices: Do Survival Chances and Out-Of-Pocket Costs Matter, 28 Med. Decision Making 511, 518–21 (2008); George P. Smith, II, Restricting the Principle of Medical Futility, 3 J. Palliative Care 9, 9 (1995); George P. Smith, II, Terminal Sedation as Palliative Care – Revaluating a Right to a Good Death, 7 Cambridge Q. Healthcare Ethics 352, 384 (1998).

C. Other Diagnostics of Injury: Heuristics, Gestalt, and Medical Futility

1. Heuristics

When healthcare decision-makers use heuristics as a straight-forward "strategy" for assisting in managing medical information *vis-à-vis* patient care and allocation of medical resources, these healthcare managers are using heuristics in making experiential diagnostic decisions. ⁹¹ Some studies show that heuristics are surprisingly accurate, efficient, and transparent, and heuristics are widely accessible to diagnosticians who face consumer demands that their medical issues be resolved within a narrow timeframe—especially emergencies. ⁹²

Prior to making diagnostic decisions, healthcare managers can use heuristics to follow a procedural sequence of actions implicating three goals: accuracy, efficiency, and transparency. This process sets limits on the scope of information searches, when these searches begin and end, and the order by which final diagnostic decisions are made. Researchers must undertake more study of biases and the extent to which these biases violate some standards of rationality when manifested in heuristics, but such research is beyond the scope of this Article.

2. Gestalt Theory

Gestalt is a special type of heuristic that also needs further study and investigation as to its accuracy when used in clinical evaluations. ⁹⁵ Viewed as a form of educated guess decision-making or gut "feeling," ⁹⁶ gestalt draws on past experiences of medical decision-making and allows physicians to spend far less time being "guided" by algorithms. ⁹⁷ These

^{91.} See Julian N. Marlwski et al., Heuristic Decision-Making in Medicine, 14 DIALOGUES CLIN. NEUROSCIENCE 77, 78 (2021); see generally GERD GIZERENZER, GUT FEELINGS: THE INTELLIGENCE OF UNCONSCIOUS (2007). Stated simply, heuristics are "strategies that ignore part of the available information"—here medical—"basing decisions on only a few relevant predictors." Marewski et al., supra; see generally Marta Cildoz et al., Acuity-Based Rotational Patient-To-Physician Assignment in an Emergency Department Using Electronic Health Records in Triage, 29 HEALTH INFORMATICS J. (2023), https://perma.cc/4U5U-X7MM.

^{92.} See Marlwski et al., supra note 91, at 78.

^{93.} See id.

^{94.} See Arthur S. Elstein, Heuristics and Biases: Selected Errors in Clinical Reasoning, 74 ACAD. MED. 791, 792–793 (1999); see generally J.S. Blumenthel et al., Cognitive Biases and Heuristics in Medical Decision Making: A Critical Review Using a Systematic Search Strategy, 35 MED. DECISION MAKING 539 (2015).

^{95.} See Lobb & Francesetti, supra note 89.

^{96.} Whelahan et al., *supra* note 88, at 1477–80; *see also* Aliouche, *supra* note 76; *see generally* Edmund D. Pellegrino, *The Anatomy of Clinical Judgment, in* CLINICAL JUDGMENTS: A CRITICAL APPRAISAL 69 (H. T. Englehardt et al. eds., 1977).

^{97.} *See* Whelahan et al., *supra* note 88, at 1477–80.

past clinical perceptions form decisional constraints and completely exclude medical tests and patient records.⁹⁸

3. Medical Futility

Although there is no uniform definition of medical futility, a common sense, humane approach to medical decision-making is evolving. Accordingly, when "life means the prolongation of pain, with little or no chance of a real or sustainable level of qualitative recovery or rehabilitation," modalities of treatment for COVID-19 and other ailments should only be palliation. To act otherwise and fail to accept a state of medical futility rejects any and all notions of compassion, humanness, and love. 102

IV. EFFORTS TO ESTABLISH A NATIONAL STANDARD FOR MASS CASUALTY TRIAGE

In 2005, the President's Council on Bioethics concluded that the fundamental standard for sound clinical decision-making is one that seeks to promote and ensure best patient care. ¹⁰³ Meeting this standard requires

^{98.} See id.; see also Paul Ross, Gestalt Theory in Healthcare, Nursing Edu. Network (July 28, 2017), https://perma.cc/7FBV-672V.

^{99.} See, e.g., George P. Smith, II, Refractory Pain, Existential Suffering and Palliative Care: Releasing an Unbearable Lightness of Being, 20 Cornell J.L. Pub Pol'y 469 (2011); Smith, Social Justice and Health Care Management, supra note 15. Medical futility means that a particular therapy being proposed should not be performed—this is because medical evidence demonstrates that the therapy will have no positive effect on improving a patient's medical condition. See James L. Bernat, Medical Futility: Definition, Determination, and Disputes in Critical Care, 2 Neurocrit. Care 198, 198 (2005). Interestingly, neither the words "futility" nor "medical futility" are listed in Steadman's Medical Dictionary. Merriam Webster's Dictionary defines the word "futile" as having "no result or effect, pointless or useless." Matthew H. Armstrong et al., Medical Futility and Nonbeneficial Interventions: An Algorithm to Aid Clinicians, 89 Mayo Clin. Proc. 1599, 1599 (2014).

^{100.} Smith, Refractory Pain, supra note 99, at 492; see Richard A. McCormick, To Save or Let Die: The Dilemma of Modern Medicine, 229 JAMA 172, 172 (1974); see also Joseph Fletcher, A Tentative Profile of Man, 2 HASTINGS CTR. RPT. 1, 1 (1972).

^{101.} See Smith, Refractory Pain, supra note 99, at 491; see also Piroska K. Kopar et al., Addressing Futility: A Practical Approach, 4 CRITICAL CARE EXPL. 1, 13 (2022).

^{102.} See Smith, Refractory Pain, supra note 99, at 519–20; see generally JOSEPH FLETCHER, SITUATION ETHICS: THE NEW MORALITY (1998).

^{103.} See generally George P. Smith, II, Dignity in Living and in Dying, 25 J. GLOBAL LEGAL STUD. 413 (2018); see THE PRESIDENT'S COUNCIL ON BIOETHICS, TAKING CARE: ETHICAL CAREGIVING IN OUR AGING SOCIETY 217 (2005), available at https://perma.cc/MS4V-3Y54. The best patient care is care that is adjusted to the developing medical needs of the patient. Essential to the standard of best patient care is acceptance of the "intrinsic dignity of person" which, in turn, mandates that the goal of providing care must be to enhance total patient well-being (somatic and non-somatic) and at the end of life demonstrates beneficence, compassion, or charity in managing pain and suffering. GEORGE P. SMITH, II, DIGNITY AS A HUMAN RIGHT? 21–38 (2019).

that medical providers continually adjust patient care as a patient's case progresses and situations change. This level of care is anchored in mercy, compassion, beneficence, and non-malfeasance and is grounded in a moral obligation that every physician must recognize and—indeed—uphold. This care also acknowledges that every patient has an inchoate "right" not to endure suffering pain unnecessarily. 105

The baseline for patient-centered care is found in patient values that often change during the course of illnesses. ¹⁰⁶ As those values evolve and modify, so too should the medical care given to autonomous, competent patients. ¹⁰⁷ Determining the boundaries of a patient's best medical interests are challenging because of the imprecision of the two dominant vectors of force in play here: reasonableness and compassion—both of which raise issues of cost/benefit analysis and proportionality. ¹⁰⁸ Other values force the determination of what are in a patient's best medical interests to remain fact-sensitive and to be shaped by the "accepted standards of medical practice applicable within each medical case presented." ¹⁰⁹

While not definitive, the AMA issued guidance through the AMA Code of Medical Ethics to "provide foundational guidance for developing

^{104.} See DAVID C. THOMASMA & GLENN C. GRABER, EUTHANASIA: TOWARD AN ETHICAL SOCIAL POLICY 129 (1991); see generally FLETCHER, supra note 102 (contending that love and compassion are the dominant ethical values which infuse all medical decisions, and that humaneness should guide clinical decision-making).

^{105.} See Thomasma & Graber, supra note 104, at 193–94 (quoting Dr. Edmund D. Pellegrino); see also Albert R. Jonsen, A History of Bioethics as a Discipline and Discourse, in Bioethics: An Introduction to the History, Methods, and Practices 3–22 (Nancy C. Jenker et al., eds. 2012); see generally Edmund D. Pellegrino & David C. Thomasma, For the Patient's Good: The Restoration of Beneficence in Health Care (1988).

^{106.} See generally Smith, Refractory Pain, supra note 99; George P. Smith, II, Utilizing the Principle of Medical Futility: Safeguarding Autonomy and the Prohibition Against Cruel and Unusual Punishment, 12 Contemp. Health L. & Pol'y 1 (1996); George P. Smith, II, Cura Personalis: A Healthcare Delivery Quandary at the End of Life, 7 St. Louis Univ. J. Health L. & Pol'y 311 (2014).

^{107.} See George P. Smith, II, Gently into the Good Night: Toward a Compassionate Response to End-Stage Illness, 22 Temple Pol. & C.R. L. Rev. 475, 485 (2013).

^{108.} See id.

^{109.} *Id.* at 486. (internal quotation marks omitted); *see* George P. Smith, II, FINAL CHOICES: AUTONOMY IN HEALTH CARE DECISIONS 174–77 (1989); *see also* Peter Moffett, et al., *The Standard of Care: Legal History and Definitions: The Bad and Good News*, 12 W. J. EMERG. MED. 109, 110–11 (2011). Recent cases are beginning to show a judicial disposition toward recognizing the standard of care for medical practice as being conduct that a minimally competent physician in the same field would do in the same situation. The medical system is presently comfortable with using existing medical standards of care for malpractice, diagnostic, treatment, and management guidelines. It should be understood, however, that standard of care is not synonymous with the best evidence-based medicine. *See generally* Michele Oberman, *The Sticky Standard of Care*, 47 HASTINGS CTR. RPT. 25 (2017); *see also* ANNAS, *supra* note 3.

ethically sound crisis standards of care (CSC) guidelines"¹¹⁰ and to provide guidance for "initial triage decisions" made by healthcare decisionmakers—especially members of the triage team. ¹¹¹ Additionally, the AMA believes that its guidance will not only serve to moderate or relieve the moral burdens associated with making triage decisions but will also reduce the conflict that invariably occurs during the process of decision-making. ¹¹²

Presently, no universal declaration can be made regarding the best comprehensive list of principles and practice methods for performing triage on patients and injured individuals. This is because of a paucity of information and evidence available for even making a tentative conclusion of this nature. As a consequence of this situation, the United States has failed to accept either a national or an international "guideline" for triage management. Of the well over 20 triage systems currently used, researchers found that none have policies sufficiently guided by strong scientific evidence deemed suitable for national adoption.

^{110.} Crisis Standards of Care, supra note 63 (citing Physicians Responsibilities in Disaster Responsive Preparedness Opinion 8.3, Am. MED. Ass'n).

^{111.} *Id.* Several other principles and opinions under this AMA Code are pertinent to this present analysis. *See Allocating Limited Health Care Resources Opinion 11.1.3*, AM. MED. ASS'N; *see also Withholding or Withdrawing Life-Sustaining Treatment Opinion 5.3*, AM. MED. ASS'N..

^{112.} See Crisis Standards of Care, supra note 63 (citing Ethics Committees in Health Care Institutions Opinion 10.7, Am. MED. Ass'N and explaining that Opinion 10.7 "provides guidance for establishing 'triage teams' or 'triage officers' to take responsibility for implementing CSC guidelines for allocating resources, which may help to relieve treating clinicians of the moral burden such decisions impose and minimize conflicts among all relevant parties"); see generally Tyler J. Curiel, Murder or Mercy? Hurricane Katrina and the Need for Disaster Training, 355 New Eng. J. MED. 2067 (2006).

^{113.} See Koenig's & Schultz's Disaster Medicine: Comprehensive Principles and Practices xxii, xxiv (Kristi L. Koenig & Carl H. Schultz, eds., 2010).

^{114.} *See* Christopher Kahn et al., *Triage, in* Koenig's & Schultz's Disaster Medicine, *supra* note 113, 174–83.

^{115.} E. Brooke Lerner & Richard B. Schwartz, *Mass Casualty Triage: An Evaluation of the Date and Development of a Proposed National Guidelines*, 2 J. DISASTER MED. & PUB. HEALTH PREP. S25, S25 (2008).

^{116.} See Jafar Bazyar, et al., Triage Systems in Mass Casualty Incidents and Disasters: A Review Study with a Worldwide Approach, 7 J. MED. Sci. 482, 482 (2019). Included in this number of triage systems—primarily in adult triage—are START, Homebush Triage Standard, Sieve, CareFlight, STM, Military CESIRA Protocol, MASS, Revers, CBRN Triage, Burn Triage, META Triage, Mass Gathering Triage, SWIFT Triage, MPTT, TEWS Triage, Medical Triage, SALT, MSTART, and ASAV. The two primary triage systems for children are Jump START and PTT. Two secondary triage systems encompass SAVE and Sort. See id.

^{117.} See id; see also Fed. Interagency Comm. on EMS., National Implementation of the Model Uniform Care Criteria for Mass Casualty Incident Triage 4 (2013) [hereinafter FICEMS].

A. Federal Government Responses

Beginning ten years ago, as determined by the supervisory leadership of the Institute of Medicine, a serious governmental re-examination of healthcare responses is required when local, state, and/or national emergencies arise. 118 The Institute of Medicine did significant work in the following years to develop health guidance upon which standards of care could, in turn, be developed for use during catastrophic events. 119 The Forum on Medical and Public Health Preparedness for Catastrophic Events of the Institute of Medicine made notable effort in 2009 by having regional meetings throughout the country designed to develop—and evaluate—the indicators and triggers for CSC. 120 Subsequently, in 2012, acting upon the Institute of Medicine's Committee on Crisis Standards of Care report, the Institute of Medicine reviewed the draft report and adopted it in 2013. 121 Many saw the report as a "conversation toolkit to guide stakeholders through the process of developing indicators and triggers that may govern their health system's transition across the continuum of care, from conventional standards of care to contingency surge responses."122

B. The National Academy of Medicine's COVID-19 Evaluation

In August 2021, the National Academy of Medicine issued its report on the use and implementation of CSC during the COVID-19 pandemic. 123 The report set forth 61 comprehensive suggestions for a "systematic, coordinate response" to improve hospital applications of CSC through emergency medical services—all toward the goal of ensuring that, when the next disaster occurs, "the best care possible is delivered" by local, state, and federal governments.¹²⁴ Central to this National Academy of Medicine Report is that CSC planning must assure that healthcare resource

^{118.} See Toolkit, supra note 2, at 11. The Department of Health and Human Services, the Veterans Health Administration, and the Government Accountability Office were among the other federal agencies involved. See id.

^{119.} See id. at 14. The early contextual history of the establishment of CSC in national catastrophes may be studied in three Institute of Medicine reports. See generally INST. OF MED., GUIDANCE FOR ESTABLISHING CRISIS STANDARDS OF CARE FOR USE IN DISASTER SITUATIONS: A LETTER REPORT 2 (B. M. Altevogt et al. eds., 2009); CRISIS STANDARDS OF CARE: A SYSTEMS FRAMEWORK, supra note 67; INST. OF MED., ENGAGING THE PUBLIC IN CRITICAL DISASTER PLANNING AND DECISION-MAKING (2013).

^{120.} See TOOLKIT, supra note 2, at 14.

^{121.} *See id.* at 12. 122. *Id.*

^{123.} See generally Hick et al., supra note 2.

^{124.} Id. at 1; see also Anthony S. Fauci, Infectious Diseases: Considerations for the 21st Century, 32 CLINICAL INFECTIOUS DISEASES 675, 675 tbl.1, 679 tbl.3 (2001) (listing the ten leading infectious causes of death from acute lower respiratory infections to meningitis and listing six "new" infectious diseases).

allocation be distributed equitably and accessibly to all communities according "to their risk of illness and mortality," that tighter mechanisms (for example, clinical prioritization) for allocating triage resources be in place, and that advanced practice providers and nursing staff all be committed to the idea of closing existing gaps among existing healthcare providers as to the ethics and processes surrounding resource triage.¹²⁵

C. Toward a Uniform Standard of Casualty and Resource Triage

In critical care pre-hospital settings in the field, it is the responsibility of the emergency medical service personnel to identify those injured, assess their level of nursing acuity—or level of the patient injuries—and then proceed to transport them to the appropriate trauma center. 126 Standardizing levels of trauma in the field have proven quite challenging. 127 Nevertheless, in 1983, California undertook to successfully develop a disaster triage or mass casualty incidents system under the acronym "START"—Simple Triage and Rapid Treatment. 128 START was updated in 1994 and has become the most commonly used triage system in the United States today. 129 The three pillars or components of this system are as follows: simple triage, algorithms, and rapid treatment. 130 Under START, a trauma team addresses three physical conditions within one hour of a victim's trauma: impaired breathing, head injury, and hemorrhage severity. 131 The second, or largely competing, triage system's acronym is "SALT"-Sort, Assess, Life-saving Intervention, Treatment and/or Transport—with the central components designed to sort victims, assess acuity, provide life-saving intervention, and provide treatment or transport. 132 One study found that neither of these two systems were superior to the other. 133 But, the study found that START was more popular because of its simplicity of use and its faster time frame for operations.¹³⁴ However, the study also found that SALT was somewhat

^{125.} Hick et al., supra note 2, at 2.

^{126.} Hendri Purwadi et al., *The SALT and START Triage System for Classifying Patient Accuity Level: A Systematic Review*, 11 NURSE MEDIA J. NURSING 413, 414 (2021); see also Fink et al., supra note 7.

^{127.} See Smith, Re-Shaping the Common Good, supra note 38, at 12.

^{128.} See id. at 12.

^{129.} See id.

^{130.} See Purwadi et al., supra note 126, at 414; see also Fink et al., supra note 7.

^{131.} See Smith, Re-Shaping the Common Good, supra note 38, at 12.

^{132.} See generally Purwadi et al., supra note 126.

^{133.} See id. at 421.

^{134.} See id. One study found the mean time Getioean START and SALT was minimal—with the START systems eight seconds faster than SALT which accounted for Getioean 26 and 34 seconds. *Id.*

more accurate for both under- and over-triage error. ¹³⁵ An effort led by the AMA concluded that if a national triage system were to be acknowledged, it would be SALT because this system is an "amalgam of the optimum characteristics of all the triage systems reviewed." ¹³⁶

Two other studies are relevant. One study, using a virtual reality system with trained paramedic students, found that using the SMART triage system was faster and more accurate than using the SALT triage system for mass casualty management. Another study determined that the START triage system was more accurate than the SALT system in classifying patients. And, when applied in a field exercise, using the START system in pandemic situations gave rise to a "higher rate of undertriage compared to the SALT classification."

D. FICEMS Core Criteria

The Secretaries of Transportation, Health and Human Services, and Homeland Security created the Federal Interagency Committee on Emergency Medical Services ("FICEMS") in 2005,¹⁴⁰ and the enabling statute tasked FICEMS with developing a single, national system for mass casualty triage—all directed toward the goal of ensuring coordination at all levels of government in emergency medical services. ¹⁴¹

^{135.} See MAYO CLINIC, Mass Casualty Triage Guidelines Revised (May 8, 2021), https://perma.cc/J3XW-8C4S. Under-triage refers to patients who are seriously injured and transported to trauma hospitals, while over-triage refers to non-injured patients transported to non-trauma hospitals. The accepted goal for over-triage case errors is usually set at less than 5% of those injured seriously and between 25 to 35% for those over-triage. Both of these goals are aimed at reducing errors in the field by emergency personnel. Joshua R. Lupton et al., Under-Triage and Over-Triage Using the Field Triage Guidelines for Injured Patients: A Systematic Review, 27 PREHOSP. EMERGENCY CARE 38, 38 (2023).

^{136.} Fink et al., *supra* note 7, at 382.

^{137.} See generally Dave C. Cone, et al., Comparison of the SALT and SMART Triage System Using a Virtual Realty Simulator with Paramedic Students, 18 European J. Emer. Med. 314 (2011).

^{138.} See generally Salvatore Silvestri, et al., Comparison of START and SALT Triage Methodologies to Reference Standard Definitions and to a Field Mass Casualty Simulator, 12 Am. J. Med. 27 (2017).

^{139.} *Id.* (emphasis omitted). *Under-triage* refers to major trauma patients receiving sub-optimal care and, thus, having an enhanced risk of mortality. *See id.*

^{140.} See 42 U.S.C. § 300d-4 (2012).

^{141.} See FICEMS, supra note 117, at 3–4. The National Association of State Emergency Officials ("NASEMO") published a comprehensive report in 2022 setting forth suggested national clinical guidelines for the field triage of pre-hospital injured patients which had the effect of amending and updating the 2011 Core Criteria. These new guidelines are not intended to serve as guides for mass casualty events or in-hospital trauma team responses. Furthermore, all emergency medical judgment criteria are to be considered within the context of resources available in the regional trauma system. MED. DIRS. COUNCIL, NATIONAL MODEL EMS CLINICAL GUIDELINES VERSION 3.0, NASEMSO, (Mar. 2022), https://perma.cc/87V5-N9P8; see generally Craig D. Newgard et al., National

In 2011, FICEMS released its Model Uniform Core Criteria ("MUCC") for Mass Casualty Triage that sets forth 24 core criteria for all national triage systems designed to deal with mass casualty incidents. FICEMS hopes that MUCC will serve as a catalyst for all of the 50 states and that MUCC's criteria will be accepted as a tool for unification and, indeed, as a "support for interoperability" among the present triage systems throughout the states. FICEMS's strategic plan identifies four specific areas of special concern: the continued development of the evidence-based guidelines ("EMG") Model Process; the standardization of prehospital data through both the adoption and implementation of the National Emergency Services ("EMS") Information System-Complaint systems; the continued support of the entire EMS system of all-hazard preparedness; and, finally, the diligent cooperation of all 50 state EMS offices to assist in transitioning military EMS providers to civil practice. 144

E. International Clarifications

In 1994, the World Medical Association recommended that disaster triage systems have five "sorting" criteria when dealing with medical casualties. The first priority group is for those whose lives are in immediate danger and who can be saved if treatment is provided within a few hours. The second group consists of those who, while not in immediate danger, need urgent care. The third group consists of those who are only in need of minor treatment. The fourth group is for those needing sedation because of physical or psychological trauma. The final group is for those with injuries "beyond emergency care" for whom therapeutic resources are arguably valueless because the patients cannot be saved under the present circumstances or require complex surgeries,

Guideline for the Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage, 83 J. Trauma & Acute Care e49 (2022).

^{142.} See generally Nat'l Highway Traffic Safety Admin., Model Uniform Core Criteria for Mass Casualty Incident Triage: Addendum to the Emergency Medical Technician Instructional Guidelines (2011).

^{143.} FICEMS, NATIONAL IMPLEMENTATION OF THE MODEL UNIFORM CORE CRITERIA FOR MASS CASUALTY INCIDENT TRIAGE, FICEMS (2011), https://perma.cc/6QAY-W9AD; see generally E. Brooke Lerner et al., Mass Casualty Triage: An Evaluation of the Science and Refinement of a National Guideline, 5 DISASTER MED. Pub. Health Preparedness, 129 (June 5, 2011).

^{144.} FICEMS, supra note 117.

^{145.} See World Med. Ass'n, WMA Statement on Medical Ethics in the Event of Disasters (1994), https://perma.cc/B5FH-F948; Kenneth V. Iserson & John C. Moskop, Triage in Medicine, Part 1: Concept, History and Types, 49 Ann. Emerg. Med. 275, 279 (Mar. 2007).

^{146.} See WORLD MED. ASS'N, supra note 145.

^{147.} See id.

^{148.} See id.

^{149.} See id.

and thus require a physician to choose between treating these types of injuries and those of other parties.¹⁵⁰ This type of triage system has come under considerable criticism because it runs counter to the previously used system that placed "salvageable" injuries as the first group to be triaged.¹⁵¹ The World Medical Association Assembly concluded its recommendations by stating, "It is unethical for a physician to persist, at all costs, at maintaining the life of a patient beyond hope, thereby wasting to no avail scarce resources needed elsewhere."¹⁵² This statement makes it abundantly clear that the doctrine of medical futility is the fundamental policy guiding (and legitimizing) medical care—especially in triage settings.¹⁵³

The World Medical Association Assembly's Statement of Medical Ethics, above, was revised by the 57th General Assembly in 2006 and by the 68th General Assembly in 2017. The Anumber of significant changes were made to the Statement since its first declaration in 1994, and these changes reflect a less rigid process for dealing with medical relief during times of disaster. Interestingly, the General Assembly changed the triage classifications altogether. Rather than set forth a five-step triage classification system like the one set forth in 1994, the General Assembly acknowledged the fact that "a system of triage may be necessary to determine priorities [and is] ethical provided [that the medical providers] adhere to normative standards. The Statement holds unequivocally that "[i]t is ethical for a physician not to persist, at all costs, in treating individuals beyond emergency care[,]' thereby wasting scarce resources needed else-where. The Statement also maintains that "[t]he decision not to treat an injured person on account of priorities dictated by

- 150. *Id.* (internal quotation marks omitted).
- 151. See Smith, Re-Shaping the Common Good, supra note 38, at 13.
- 152. WORLD MED. Ass'n, supra note 145.
- 153. See George P. Smith, II, Death Be Not Proud: Medical, Ethical and Legal Dilemmas in Resource Allocation, 3 J. Contemp. Health L. & Pol'y 47 (1987).
 - 154. See WORLD MED. Ass'N, supra note 145.
- 155. See id. Interestingly, the Italian Society of Anesthesia, Analgesia, Resuscitation, and Intensive Care ("SIAARTI") follows a strictly utilitarian model for the rationing of scarce medical resources by setting strict age limits for admission to intensive care treatment and allocating the resources to patients with the greatest probability of survival and life expectancy with treatment (in other words, the greatest good for the greatest number). See 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, 24 CRITICAL CARE 165, https://perma.cc/C92J-3WFD, (2020). These clinical recommendations do not make scarce medical resources available for individuals with significant co-morbidities. May & Aulisio, supra note 58, at 1837.
 - 156. See WORLD MED. ASS'N, supra note 145.
 - 157. Id. at Recommendation 8.1.
 - 158. *Id.* at Recommendation 8.2.1.

the disaster situation cannot be considered an ethical or medical failure"¹⁵⁹ when such actions are "intended to save the maximum number of individuals."¹⁶⁰ Continuing, the Statement acknowledges that physicians "must act according to the needs of patients and the resources available"¹⁶¹ and—furthermore—attempt to set an order of priorities for treatment that will save the greatest number of lives and minimize morbidity. ¹⁶² Finally, the Statement asserts that "[i]n selecting the patients who may be saved, the physician should consider only their medical status and predicted response to the treatment, and should exclude any other consideration based on non-medical criteria."¹⁶³

V. CONCLUSIONS

Local, state, and federal policymakers have scrutinized carefully the National Academy of Medicine's 2021 report on the COVID-19 pandemic as authorities undertake continuing efforts to assure the best care possible is delivered when the next national health emergency strikes. ¹⁶⁴ The first step toward realization of this goal is accepting the fact that healthcare resources are not unlimited. ¹⁶⁵ Because of this relative scarcity, equitable allocations of these resources must be made ¹⁶⁶ through "tested" gatekeeping policies. ¹⁶⁷ Physicians, as the *de facto* "gatekeepers" to the whole healthcare system, encounter a fundamental challenge—if not a paradox—every day: how to reconcile the Hippocratic Oath, to which they affirm to act in the best interests of their patients with the economic reality—and responsibility—of institutional healthcare maintenance that requires physicians to act reasonably in allocating scarce medical resources. ¹⁶⁸

- 159. Id.
- 160. *Id*.
- 161. *Id.* at Recommendation 8.2.2; see generally Smith, Refractory Pain, supra note
 - 162. See WORLD MED. ASS'N, supra note 145, at Recommendation 8.2.2.
 - 163. *Id.* at Recommendation 8.3.1.
- 164. See Hick et al., supra note 2; see also Wen W. Shen, State and Federal Authority to Mandate COVID-19 Vaccination, Congressional Rsch. Serv., R46745 (May 17, 2022), https://perma.cc/V685-TJ8G.
- 165. See Flaatten, supra note 45, at 3–4; see generally Smith, Refractory Pain, supra note 100.
 - 166. Flaatten, *supra* note 45, at 2–3.
 - 167. See Pellegrino, Rationing Health Care, supra note 16, at 26.
- 168. See id.; see generally MEDICAL ETHICS, supra note 5. For an analysis of the scope of indirect rationing, see George P. Smith, II, Re-Negotiating a Theory of Social Contract for Universal Health Care in America or, Securing the Regulatory State?, 63 CATH. U. L. REV. 9, 32 (2014). Resource allocation systems—out of necessity—reflect underlying values regarding who should recover limited resources. See CRISIS STANDARDS OF CARE: A SYSTEMS FRAMEWORK, supra note 67, at 75.

Because triage algorithms typically appear in CSC plans as guides for allocating critical care resources, a major question arises: to what extent should state-imposed methodology be mandated to healthcare providers (or triage team managers) during emergencies and disasters, ¹⁶⁹ or should individual hospitals decide the nature and scope of CSC when these standards are called into play? ¹⁷⁰ An inextricable consideration of this quandary is whether public preference—not private reasoning—should infuse all triage CSC policies. ¹⁷¹ Regrettably, an unyielding and unequivocal position is not forthcoming in the present political climate in which CSC exists. ¹⁷² This situation becomes complicated when some communities and state administrative agencies require significant data to determine whether the trigger point for CSC triage policies exists. ¹⁷³ The test to determine whether the trigger point exists—in case of triage—should be as with other medical uses: namely, whether the physician's judgment is, under existing circumstance, *reasonable*. ¹⁷⁴

Although triage physicians should sparingly make medical assessments of current or future quality-of-life situations for patients, this caveat does not foreclose these quality-of-life assessments from being made for at-risk patients or by proper healthcare proxies. While considered by most as ethically irrelevant as a condition for triage, a triage physician may ethically consider a stable disability together with the "intensity of resource utilization" required for sustenance—when transferring ventilator assistance from one at-risk patient to a second patient who has prospects for living longer.

^{169.} See Mehta & Wynia, supra note 8, at 54–55; DOUGLAS B. WHITE, ALLOCATION OF SCARCE CRITICAL CARE RESOURCES DURING A PUBLIC HEALTH EMERGENCY (2020), https://perma.cc/6AF8-JQR3.

^{170.} See Mehta & Wynia, supra note 8, at 54–55.

^{171.} See Alex Rajezi et al., The University of California Crisis Standards of Care: Public Reasoning for Socially Responsible Medicine, 51 HASTINGS CTR. REP., 30, 31(2021); see also Flaatten, supra note 45. The University of Pittsburgh's Medical Center has developed A Model Hospital Policy for Allocating Critical Care Resources which is regarded as one of the strongest, and balanced, triage policies in the country. See WHITE, supra note 170.

^{172.} See TOOLKIT, supra note 2, at 68.

^{173.} See id.

^{174.} See Smith, Euphemistic Codes, supra note 14, at 188–90.

^{175.} See Mildred Z. Solomon et al., COVID-19 Crisis Triage – Optimizing Health Outcomes and Disability Rights, 383 New Engl. J. Med., e27(1), e27(1)–e27(3) (2020); see generally Alexia M. Torke et al., Substituted Judgment: The Limitations of Autonomy in Surrogate Decision Making, 23 J. Gen. Internal Med. 1514 (2008); Douglas B. White et al., Prevalence of and Factors Related to Discordance About Prognosis Between Physicians and Surrogate Decision Makers of Critically Ill Patients, 315 J. Am. Med. Ass'n 2086 (2016).

^{176.} Solomon et al., *supra* note 175, at e27(3).

^{177.} See id. at e27(3), e27(4)

Allocating medical resources implicates several fundamental values. Allocating benefits from the use of scarce resources combines with policies of equal treatment for all and a priority of use given to the "worse off." Building upon these values come recommendations not to prioritize treatment on a first come, first "served" (used) basis, to apply uniform principles to all COVID-19 patients, and to use random selection lotteries when there are vaccine scarcities. 180

Others suggest that more conservative policies be established for allocating scarce medical resources during state emergencies.¹⁸¹ Perhaps the most controversial of these policies is to impose an absolute age limitation on those seeking admittance to intensive care.¹⁸² When finetuning the algorithms used for determining medical suitability for use of medical resources, the patient's level of frailty, level of cognition and activity, and severity of illness should be considered.¹⁸³ The nature of any medical benefit and the quality of life a patient accrues upon their discharge from intensive care is also important. Finally, the treatment outcome on a long-term or short-term basis should be assessed.¹⁸⁴ Because of the disparity of views regarding distribution factors or criteria, a need for continuing medico-legal and social dialogue is obviously necessary.

When physicians undertake treatment, the central clinical concern should be whether that specific course of medical action is efficacious; in other words, will it work and, will it provide humane care. Before commencing any life-saving treatment, clear limits need to be set as to the conditions that must be met and maintained for the treatment to continue. To the extent possible, clinicians and other triage system members should make every effort to make conclusive decisions tied to evidence-based objective guidelines deriving from accepted scientific

^{178.} See id.; see generally Pellegrino, Rationing Health Care, supra note 16.

^{179.} Solomon et al., *supra* note 175, at e27(3).

^{180.} See Flaatten, supra note 45, at 2–3.

^{181.} See id.; see generally George P. Smith, II, Distributive Justice and Health Care, 18 J. Contemp. Health. L. & Pol'y 423 (2002).

^{182.} See generally Flaatten, supra note 45; George P. Smith, II, Our Hearts Were Once Young and Gay: Health Care Rationing and the Elderly, 8 U. Fla. J. L. & Pol'y 1 (1996).

^{183.} See Flaatten, supra note 45, at 1.

^{184.} See id. at 1–2; see generally Franklin, supra note 5.

^{185.} See Daniel Callahan, The Troubled Dream of Life: In Search of a Peaceful Death 213 (2000); see generally Simmy Grover et al., Preferences for Scarce Medical Resource Allocation: Differences Between Experts and the General Public, 25 Br. J. Health Psychology 889 (2020); Bayer & Fairchild, supra note 27; James G. Hodge, Jr. et al., Diminishing Disparities in U.S. Crisis Standards of Care: Medical and Legal Challenges, 34 E. Clinical Med. 1, 1 (2021).

^{186.} See generally CALLAHAN, supra note 185, at 213; Torke et al., supra note 175; White et al., supra note 175; Moffett, et al., supra note 109, at 110–111; Oberman, supra note 109.

principles of healthcare medicine and holding the promise of removing subjective biases and arbitrariness from medical decision-making. ¹⁸⁷ Even with these considerations being accepted, when the final analysis reveals inadequate cohesiveness or solidarity among the states for strengthening emergency preparedness plans, the federal government should become the hegemonic—or dominant—force in any notion of cooperative federalism, ¹⁸⁸ and it should also become the dominant force in educating (and incentivizing when necessary) ¹⁸⁹ the states to unify in their responsibility to protect the common good when medical catastrophes occur. ¹⁹⁰

^{187.} See CALLAHAN, supra note 185, at 213.

^{188.} See generally James G. Hodge, Jr., Nationalizing Public Health Emergency Legal Responses, 49 J. L. Med. & Ethics 315, 316 (2021); Hodge Jr. et al., COVID's Constitutional Conundrum, supra note 2. It has been asserted that it is wise to acknowledge that a relatively new form of federalism—termed National Federalism—is at play in emerging healthcare policymaking. Seen as "dynamic" and largely dependent on "the whims of politics," this governmental policy acknowledges that state legislative acts of sovereignty are "put into motion by national laws" rather than by alternatives to it. Abbe Gluck, Our [National] Federalism, 123 YALE L. J. 1996, 2043 (2014); see generally Stephanie Reed, Long COVID Side Effects: States Rethink Separation, 19 J. HEALTH & BIOMEDICAL L. 140 (2022); Davis et al., supra note 8; see generally POSNER, supra note 43.

^{189.} See generally Griffin Trotter, The Ethics of Coercion in Mass Casualty Medicine (2007).

^{190.} See Galva et al., supra note 30; George P. Smith, II, Common Sense or Sensibility: Vaccine Hesitancy, Parens Patriae, and the Common Good, 19 J. HEALTH BIOMEDICAL L. 1, 3, 37 (2022). A 2023 report from the Covid Group concluded that "pandemic preparedness" is crucial for the United States government to attain to meet future public health emergencies. LESSONS FROM THE COVID WAR, supra note 52 at 1, 278–79.