



Setting priorities fairly in response to Covid-19: identifying overlapping consensus and reasonable disagreement

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ABSTRACT

Proposals for allocating scarce lifesaving resources in the face of the Covid-19 pandemic have aligned in some ways and conflicted in others. This paper attempts a kind of priority setting in addressing these conflicts. In the first part, we identify points on which we do not believe that reasonable people should differ—even if they do. These are (i) the inadequacy of traditional clinical ethics to address priority-setting in a pandemic; (ii) the relevance of saving lives; (iii) the flaws of first-come, first-served allocation; (iv) the relevance of post-episode survival; (v) the difference between age and other factors that affect life-expectancy; and (vi) the need to avoid quality-of-life judgments. In the second part, we lay out some positions on which reasonable people can and do differ. These include (i) conflicts between

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maximizing benefits and priority to the worst off; (ii) role-based priority; and (iii) whether patients' existing lifesaving resources should be subject to redistribution.

KEYWORDS: Covid-19, disability, ethics, priority-setting, triage, ventilators

Much has been written of late about the ethical issues that would arise if a hospital confronted a shortage of ventilators that prevented it from giving one to every patient who could benefit and might otherwise die. While we do not know how likely this prospect is, we know that the standards by which hospitals make those decisions will be closely scrutinized. Worst of all would be leaving them to the unguided judgment of exhausted, demoralized health care professionals.¹ Decisions about how to prioritize should be made well before the number of ventilators is surpassed by the number of patients immediately needing them. Our society failed to adequately prepare for the pandemic itself; we can at least prepare for the shortage of lifesaving resources that failure will likely produce.

These decisions go far beyond ventilator shortages, though here we mostly use ventilator-related examples to engage with current debates. The pandemic has already required priority-setting decisions about scarce bed space, protective equipment, and health worker time,² and about access to scarce drugs.³ If an antiviral proves effective or a vaccine is developed, these ethical issues will again become highly salient. Different interventions present different issues: because vaccines are provided at a single visit, we will never be faced with the option of removing a scarce vaccine from one person to save two. But the core challenge of fairly allocating scarce medical resources will repeat itself in different ways throughout the Covid-19 pandemic.

There has been no shortage of proposals on how to allocate urgently needed scarce lifesaving resources in recent months. These triage proposals have aligned in some ways and conflicted in others. This paper attempts a kind of priority setting in addressing these conflicts. In the first part of the paper, we lay out some minimal positions on which we do not believe that reasonable people should differ—even if they do. These are:

- 1) The inadequacy of traditional clinical ethics to address priority-setting in a pandemic
- 2) The relevance of saving lives
- 3) The flaws of first-come, first-served allocation
- 4) The relevance of post-episode survival
- 5) The difference between age and other factors that affect life expectancy
- 6) The need to avoid quality-of-life judgments

1 E.J. Emanuel et al., *Fair Allocation of Scarce Medical Resources in the Time of Covid-19*, *NEW ENG. J. MED.* (2020).

2 Joanne Lipmanfor, *Cancer Surgeries and Organ Transplants are Being Put Off for Coronavirus. Can They Wait?*, *PROPUBLICA*, <https://www.propublica.org/article/cancer-surgeries-and-open-transplants-are-being-put-off-for-coronavirus-can-they-wait> (accessed Apr. 6, 2020).

3 Christopher Rowland & Joanna Slater, *Spikes in Demand from Coronavirus Patients are Creating Shortages of Asthma Drugs and Sedatives for Ventilator Patients*, *WASH. POST*, <https://www.washingtonpost.com/business/2020/04/12/drug-ventilator-shortage-coronavirus> (accessed Apr. 12, 2020).

Together these points of reasonable agreement establish a broad consensus on which triage protocols can be based. In the second part, we lay out some positions on which reasonable people can and do differ. We thereby aim to focus the ethical debate on the issues we believe are the most difficult and morally important.

Our discussion of reasonable agreement is rooted in recognition of long-standing and ongoing unfairness within health care and public health provision in the USA. We focus on the impact of this unfairness on people with disabilities. As the US Congress found in passing the Americans with Disabilities Act, ‘discrimination against individuals with disabilities persists in such critical areas as . . . health services.’⁴ That discrimination has taken the form not only of the outright denial of services, but of the substantial undervaluation of the quality of lives of people with disabilities and of the benefits they can receive from medical interventions. Other disadvantaged social groups, notably African Americans and Native Americans, have also suffered a long history of neglect and abuse from the health professions that has contributed to severe and persisting health disparities. As a result of deeply entrenched discrimination and injustice, people with disabilities and the members of other disadvantaged social groups have been more likely than the general population to contract Covid-19, and less likely to receive a prompt, appropriate medical response.

REASONABLE AGREEMENT

The inadequacy of clinical ethics

The first point on which we think reasonable people should agree is that traditional clinical ethics will not answer questions about how to allocate scarce life-saving resources, such as ventilators. Orthodox clinical ethics directs each physician to act in the best interests or at the direction of the patient she is treating.⁵ But most physicians, especially in a busy ER or ICU, treat multiple patients at any given time. If a physician has more patients in need of ventilators than she has ventilators, she will have to violate her duty to at least one. Further, in a pandemic where the number of patients who need life-saving interventions exceeds the availability of those interventions, it is unfair and counter-productive for individual clinicians to attempt to prioritize their current patients over other patients.

The relevance of saving lives

The second point is that saving the greater number of lives when all cannot be saved—reflected in giving priority to patients who are most likely to benefit from ventilation or require less time on a ventilator—is a matter of overlapping consensus across many ethical theories.⁶ It is hardly, as some critics suggest, a position limited to hard-core utilitarians. Even Elizabeth Anscombe, a resolutely non-utilitarian philosopher who

4 Americans with Disabilities Act, 42 U.S.C. § 12101 (1990).

5 J.F. CHILDRESS & T.L. BEAUCHAMP, *PRINCIPLES OF BIOMEDICAL ETHICS* (Oxford University Press, 2001).

6 Derek Parfit, *Innumerate Ethics*, 7 *PHIL. & PUB. AFF.* 285, 285–301 (1978); Nien-hè Hsieh et al., *The Numbers Problem*, 34 *PHIL. & PUB. AFF.* 352, 352–372 (2006); Frances Myrna Kamm, *Equal Treatment and Equal Chances*, 14 *PHIL. & PUB. AFF.* 177, 177–194 (1985); THOMAS SCANLON, *WHAT WE OWE TO EACH OTHER* (1998); see also Ryan T. Anderson et al., *Moral Guidance on Prioritizing Care During a Pandemic*, *THE PUB. DISCOURSE*, <https://www.thepublicdiscourse.com/2020/04/62001/> (accessed Apr. 5, 2020) (consensus statement of various religious thinkers, endorsing the value of saving the most lives).

questioned whether we had a duty to save the most lives, insisted, ‘I do not mean to suggest that ‘because there are more’ isn’t a good reason for helping these and not that one . . .’⁷ The broader public health response to Covid-19 in the USA and elsewhere steadfastly supports saving more lives. For example, it countenances delays to lifesaving medical procedures like chemotherapy and organ transplantation. These measures will inevitably cost some lives, while saving a greater number of others. In this respect, priority-setting for ventilators or ICU beds is no different. For this reason, it is misleading to claim that lives-maximizing triage policies sacrifice fairness to ‘efficient optimization.’⁸ Efficiency in this context does not mean abstract gains in welfare or economic productivity, but fewer people dying—not the only value that matters, but certainly a bedrock one that is shared across ethical theories.⁹

The flaws of first-come, first-served

The third point is that a policy of ‘first-come, first-served’ would be more harmful and less fair to people with disabilities—and members of other disadvantaged groups—overall than a policy of saving the greater number of lives. In opposition to triage policies, Ari Ne’eman writes: ‘Though some insist otherwise, we should maintain a broad approach of ‘first come first served’ when it comes to lifesaving care, even scarce medical resources like ventilators. . . . those who can be helped should not be given lower priority because of pre-existing disabilities, even those that will require more scarce resources.’¹⁰ This proposal makes incorrect assumptions about how lives-maximizing triage decisions will be made and how they will impact people with disabilities.

Advocates are right to challenge state policies that rely on inaccurate generalizations about the length or quality of life of people with disabilities.¹¹ But the most widely accepted guidelines, like the Pittsburgh protocol, require individualized assessment of patients rather than categorical exclusion.¹² Individualized assessment means that a patient with cystic fibrosis but above-average respiratory function would not be excluded; she would be assigned priority on the basis of her assessed respiratory function, not her pre-existing disability. These protocols also avoid close judgments about the expected length of ventilation. Rather, they propose re-allocation if a patient

7 G.E.M. Anscombe, *Who is Wronged?*, 5 OXFORD REV. 16, 16–17 (1967).

8 Ari Ne’eman, *I Will Not Apologize for My Needs*, N.Y. TIMES, March 23, 2020, <https://www.nytimes.com/2020/03/23/opinion/coronavirus-ventilators-triage-disability.html>.

9 Some writers have attempted to distinguish probability of survival from resource-intensity as triage criteria. Although both would increase the number of lives saved, it has been argued that one is more acceptable than the other. Interestingly, this argument has been made for each of these criteria against the other. See Joseph Stramondo, *Disability, Likelihood of Survival, and Inefficiency Amidst Pandemic*, BIOETHICS.NET, <http://www.bioethics.net/2020/04/disability-likelihood-of-survival-and-inefficiency-amidst-pandemic> (accessed Apr. 6, 2020, 12:10 PM); Deborah Hellman & Kate Nicholson, *Rationing and Disability in a State of Crisis*, VA. PUB. L. & LEGAL THEORY RESEARCH PAPER NO. 2020–33, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3570088 (accessed Apr. 16, 2020).

10 Ne’eman, *supra* note 7.

11 See Michelle M. Mello, Govind Persad, & Douglas B. White, *Respecting Disability Rights—Toward Improved Crisis Standards of Care*, NEW ENG. J. MED., <https://www.nejm.org/doi/full/10.1056/NEJMp2011997> (accessed May 19, 2020) (summarizing policies and challenges).

12 Douglas White, *A Model Hospital Policy for Allocating Scarce Critical Care Resources*, U. PITT. DEP’T CRITICAL CARE MED., https://ccm.pitt.edu/sites/default/files/UnivPittsburgh_ModelHospitalResourcePolicy_2020_04_15.pdf (accessed Apr. 3, 2020).

is deteriorating despite ventilation, a guideline that converges with the medical-futility criterion that even Ne’eman endorses.

Regarding impact, a first-come, first-served policy will likely be worse for people with disabilities than protocols that aim to save more lives. This is both because fewer lives overall will be saved and because disabled individuals are unlikely to make it to the front of the queue.¹³ Under protocols that aim to save more lives, a subset of people with specific disabilities—in particular pulmonary and cardiac disabilities—may be assigned lower priority because of individualized assessments of their probability of episode survival. Ne’eman argues that people with disabilities who support such protocols fail to display the solidarity they owe to those whose disabilities limit their prospects for survival.¹⁴ Individuals with and without disabilities, however, may feel, and should be free to express, solidarity with different social groups: their families, their coreligionists, or their local communities. Requiring solidarity with a specific group denies agency to people with disabilities.¹⁵ Triage policies should not mandate that people with disabilities reject protocols that would improve their, or their loved ones’, access to potentially lifesaving treatments merely because they occupy—not by choice—the same ascribed social category as someone whose disability seriously limits their prospect of benefit.

The relevance of life expectancy

The fourth point is that, at least sometimes, life expectancy matters for triage decisions. When deciding whether a scarce ventilator should go to a patient with a late-stage, metastatic cancer with predicted survival measured in months or weeks, the stark limits on our ability to benefit this patient should matter. To accept this is not to say that triage policies should always seek to maximize life-years; it is to deny another sort of absolutism. Even the life-year skeptic should accept that life-expectancy can sometimes matter. He must be prepared to say something about when and why.¹⁶ We turn to reasonable disagreement about that question shortly.

The law, at least in the USA, does not proscribe saving more lives or considering life expectancy in the way we describe above. Providers may legally consider scientifically supported evidence about which patients will benefit and how much when making

13 Joseph Millum & Govind Persad, *Fair Coronavirus Triage Guidelines—Not Business as Usual—Will Save More Patients with Disabilities*, DENV. POST, <https://www.denverpost.com/2020/04/07/guest-commentary-fair-coronavirus-triage-guidelines-not-business-as-usual-will-save-more-patients-with-disabilities> (accessed April 7, 2020).

14 Ari Ne’eman, *When it Comes to Rationing, Disability Rights Law Prohibits More Than Prejudice*, THE HASTINGS CTR., <https://www.thehastingscenter.org/when-it-comes-to-rationing-disability-rights-law-prohibits-more-than-prejudice/> (accessed Apr. 10, 2020).

15 Govind Persad & David Wasserman, *Diversity and Solidarity in Response to Covid-19*, THE HASTINGS CTR., <https://www.thehastingscenter.org/diversity-and-solidarity-in-response-to-covid-19/> (accessed May 13, 2020).

16 Admittedly, this is an area whether it is particularly difficult to draw lines. In the face of this uncertainty and disagreement, some may rely on the vague but familiar classification of ‘terminal illness,’ often quantified as 6 months or less. Terminal patients can be said to be dying already, in a stronger sense than all of us can be said to be dying. Others may find this too vague, or insufficiently sensitive to enormous differences in life expectancy beyond 6 months.

treatment decisions, even if this disadvantages patients with certain disabilities.¹⁷ The cases finding that providers have illegally discriminated involve groundless stereotyping, whereas decisions grounded in legitimate, even if disputable, medical evidence are typically upheld.

The distinction between age and disability

Fifth, and relatedly, we should distinguish cases in which lower life expectancy is due to age from those in which it is due to disease or disability. Age and life-expectancy, of course, are closely correlated: the older a patient, all else equal, the shorter his life expectancy. But we can distinguish two reasons for giving priority to younger over older patients: that doing so will save more life-years, and that it will recognize the fact that younger people have had fewer years of life. The first reason appeals to doing more good, while the second is grounded in priority to the worst off, but both align in the case of age. Allocating a scarce ventilator to a severely ill 20-year old rather than an equally ill 60-year old serves to reduce the inequality in life-span between them; it gives the scarce resource to the patient who would be worse off without it.¹⁸

By contrast, when reduced life expectancy is due to an underlying disease or disability, maximizing life expectancy may not align with priority to the worst off. The person with lower life expectancy may be worse off than others, if their condition exposed them to past disadvantage. It would be unfair to disadvantage them further by giving them lower priority for a life-saving resource.¹⁹

Importantly, American constitutional law provides broad permission to consider age.²⁰ And statutes and regulations concerning age discrimination similarly permit the consideration of age in many contexts: age discrimination law—unlike other areas of civil rights law—‘specifies certain categories of age discrimination which will be considered permissible.’²¹ The Age Discrimination Act of 1975 and regulations interpreting it permit the use of age as an effective proxy for another characteristic—like medical benefit—that is legitimate to consider.²² And they exempt from review age-based criteria that are authorized by federal, state, or local statutes or ordinances.²³

The problems with quality-of-life judgments

The sixth and final point on which we think reasonable people should agree is that triage policies should not attempt, for ethical, legal, and practical reasons, to pursue

17 See Leslie Wolf & Wendy Hensel, *Valuing Lives: Allocating Scarce Medical Resources During a Public Health Emergency and the Americans with Disabilities Act*, 3 PLoS CURRENTS (Sept. 21, 2011); Govind Persad, *Disability Law and the Case for Evidence-Based Triage in a Pandemic*, 130 YALE L.J. F. 26 (2020).

18 Franklin G. Miller, *Why I Support Age-Related Rationing of Ventilators for Covid-19 Patients*, THE HASTINGS CTR. (Apr. 9, 2020), <https://www.thehastingscenter.org/why-i-support-age-related-rationing-of-ventilators-for-covid-19-patients/>; Larry R. Churchill, *On Being an Elder in a Pandemic*, THE HASTINGS CTR., <https://www.thehastingscenter.org/on-being-an-elder-in-a-pandemic> (accessed Apr. 13, 2020).

19 Tyler M. John, Joseph Millum & David Wasserman, *How to Allocate Scarce Health Resources Without Discriminating Against People with Disabilities*, 33 ECON. & PHIL. 161, 161–186 (2017).

20 Persad, *supra* note 22, at 896.

21 NAACP v. Wilmington Med. Ctr., Inc., 491 F. Supp. 290, 316–17 (D. Del. 1980).

22 See Exceptions to the Rules against Age Discrimination, 45 C.F.R. § 90.14 (2007); see also Govind Persad, *Evaluating the Legality of Age-Based Criteria in Health Care: From Nondiscrimination and Discretion to Distributive Justice*, 60 B.C.L. REV. 889, 900 (2019).

23 42 U.S.C. § 6103(b)(2).

the utilitarian goal of maximizing overall well-being. The view that maximizing well-being is an appropriate goal of triage lies at the other extreme from the view that decline to take numbers into account at all. It is also the view that has been most vigorously critiqued by disability advocates. A triage policy that attempts to maximize health—say by allocating scarce ventilators where they are predicted to produce the greatest number of quality-adjusted life-years (QALYs)—would be mistaken on several grounds. First, the general public frequently believe that a given disability lowers quality of life much more than people with that disability do.²⁴ QALYs grounded in public judgments would thus likely undervalue continued life with a pre-existing disability. Second, even when disabilities genuinely lower quality of life, this frequently stems from social arrangements that unjustly disadvantage people with disabilities.²⁵ Third, as noted above, if people with certain disabilities have experienced lower quality of life in the past, there are reasons of fairness to give them higher priority for scarce resources, even if those must be balanced against the value of using the resources to save more lives or years of life. Finally, the practical and epistemic challenges of assessing a patient's pre-existing quality of life are immense in a pandemic.²⁶ Allowing quality of life assessments to be used would risk baking in prejudiced assumptions about the value of the pre-Covid lives of people with disabilities.

AREAS OF REASONABLE DISAGREEMENT

The areas of reasonable agreement we have identified encompass much of what is found in existing triage documents in the USA. Nevertheless, scholars and activists have highlighted other questions regarding the allocation of scarce resources that are both important and the subject of reasonable disagreement. These are issues where ethical inquiry could make particularly valuable contributions. In the following paragraphs, we outline these issues and enumerate considerations on each side.

Conflicts between maximizing benefits and priority to the worst off

Most theorists, including ourselves, think that decisions about the allocation of scarce resources should take account of both the amount of benefits that a given allocation will provide and how those benefits are distributed among the beneficiaries. One helpful way of conceptualizing the concern with distribution is prioritarian—a benefit is valued more highly the worse off the beneficiary. Above, we endorsed a presumption in favor of saving more lives, and in favor of taking length of life into account in at least some cases. A policy of saving more lives will often increase total benefits without worsening the condition of the worst-off. A policy that takes account of extreme differences in life expectancy could penalize some individuals who have already experienced very poor health, but the vast difference in the magnitude of benefits provided by the scarce resource would outweigh any negative impact on equality between patient groups.

24 Gary L. Albrecht & Patrick J. Devliege, *The Disability Paradox: High Quality of Life Against the Odds*, 48 Soc. SCIENCE & MED. 977, 977–88 (1999); Sarah Goering, 'You Say You're Happy, but . . .': Contested Quality of Life Judgments in Bioethics and Disability Studies, 5 J. BIOETHICAL INQUIRY 125, 125–135 (2008).

25 Govind Persad, *Considering Quality of Life while Repudiating Disability Injustice: A Pathways Approach to Setting Priorities*, 47 J. L., MED. & ETHICS 294, 294–303 (2019).

26 Emanuel, *supra* note 1.

Similarly, we endorsed giving priority based on younger age, which, all else equal, both maximizes total benefits and favors the worst-off.

More challenging questions arise—for theory and practice—when maximizing benefits and redressing disadvantage pull powerfully in different directions. Whether triage policies should aim to maximize life-years saved is a case in point. Many, though not all, disabilities reduce life expectancy. For example, persons with multiple sclerosis are estimated to have life expectancies 7–14 years lower than the general population²⁷ and persons with schizophrenia are estimated to lose 13–15 years on average.²⁸ In our current society, people with these disabilities typically also experience substantial disadvantage, arising from—for instance—restricted opportunities, prejudice, and in some cases pain and suffering. Take someone with Down syndrome, for example. She is likely to have reduced life expectancy compared with most other people her age, even if all are expected to live long and full lives.²⁹ She is also likely to have experienced considerable disadvantage in her life already. If she and a person of the same age without Down syndrome present to an emergency room with acute respiratory distress, should she be given lower priority? If the goal of a policy is only maximizing years of life saved, she should. But once we take disadvantage into account the verdict is not so clear: it depends on the relative weight given to maximizing benefits versus giving higher priority to those who are worse off. This is a matter of debate.

Some would argue further that the person with Down syndrome should get higher priority than similar patients who have not experienced disadvantage. A policy of maximizing lives saved would likely save more people with disabilities, members of minority racial groups, and disadvantaged people than a first-come, first-served approach would. But even more members of these groups could be saved—with no net lives lost—if policies explicitly prioritized saving them over others with comparable prognoses. Whether and to what extent this would be ethically justified depends again on how we should balance maximizing benefits against prioritizing the worst-off.

Prioritizing more disadvantaged patients in a triage protocol also faces practical obstacles. For example, a protocol that assigned ‘points’ on the basis of race would almost certainly be untenable under American law,³⁰ and one that assigned them on the basis of economic disadvantage would be lawful but politically fraught. It would likely be easier to address this issue at a macro level. One way to do this would be by ensuring that geographic areas with more disadvantaged patients have sufficient ventilators and medical staff. An alternative ‘reserve’ approach, which school districts have used to allocate limited spots,³¹ would prioritize disadvantaged patients for a specified subset of available resources. If based on geographic indicators of disadvantage, this approach would be a ‘virtual’ version of macro-level allocation—rather than physically moving

27 A. Scalfari et al., *Mortality in Patients with Multiple Sclerosis*, 81 *NEUROLOGY* 184, 184–92 (2013).

28 C. Hjorthøj et al., *Years of Potential Life Lost and Life Expectancy in Schizophrenia: A Systematic Review and Meta-Analysis*, 4 *LANCET PSYCHIATRY* 295, 295–301 (2017).

29 A. M. W. Coppus, *People with Intellectual Disability: What Do We Know About Adulthood and Life Expectancy?* 18 *DEV. DISABILITIES RESEARCH REV.* 6, 6–16 (2013).

30 See *Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 735 (2007); id. at 795 (Kennedy, J., concurring in part).

31 Parag A. Pathak et al., *Leaving No Ethical Value Behind: Triage Protocol Design for Pandemic Rationing*, NAT'L BUREAU ECON. RESEARCH, <https://www.nber.org/papers/w26951.pdf> (accessed Jun. 2020).

ventilators to less advantaged areas, some ventilators at hospitals would be initially reserved for patients from those areas.

We think that the difficulty of incorporating priority to the disadvantaged into triage protocols presents a genuine dilemma. On the one hand, if hospitals take patients with acute respiratory distress ‘as they find them,’ they risk preserving, if not exacerbating, background injustice. On the other hand, efforts to ameliorate background injustice within triage protocols risk perpetuating other forms of injustice. Empowering physicians and triage teams to consider which patients had in fact received fewer past resources,³² or whose preexisting conditions stemmed from circumstances ‘beyond their control,’³³ would produce bias and arbitrariness, even before raising the broader question of whether such determinations are appropriate bases for the distribution of medical resources or social goods more generally.

Perhaps surprisingly, a ‘life-cycle’ principle that would give priority to younger patients (who have lived through fewer life stages) might prove to be an administrable and politically tenable way of ameliorating at least some disparities. Such a principle has been endorsed in public engagement surveys, age is straightforward to assess, and younger people in the USA are more likely to be socioeconomically disadvantaged and to be ethnic minorities.³⁴

Should some individuals get higher priority because of their roles?

Some guidelines give health care workers higher priority for life-saving resources. They are frequently ambiguous in their definition of health care workers and in their justification for giving them priority. For instance, when recommending ‘priority to those who are central to the public health response,’ one prominent guideline claims that this category ‘should be broadly construed to include those individuals who play a critical role in the chain of treating patients and maintaining societal order.’³⁵ This means that ‘it would not be appropriate to prioritize front-line physicians and not prioritize other front-line clinicians (e.g. nurses and respiratory therapists) and other key personnel (e.g. maintenance staff that disinfects hospital rooms).’³⁶

It is helpful here to distinguish instrumental reasons for prioritizing health care workers (eg saving more lives in the future) from non-instrumental reasons (eg reciprocity for someone’s past sacrifice or contribution). Most who endorse saving more lives—not only utilitarians—endorse policies like saving health workers that indirectly save more lives.³⁷ Instrumental reasons, however, differentiate individuals whose

32 Cf. Hannah McLane, *A Disturbing Medical Consensus is Growing: Here’s What It Could Mean for Black Patients with Coronavirus*, WHYY.org, <https://whyy.org/articles/a-disturbing-medical-consensus-is-growing-heres-what-it-could-mean-for-black-patients-with-coronavirus> (accessed Apr. 10, 2020).

33 Harald Schmidt, *The Way We Ration Ventilators is Biased*, N.Y. TIMES, April 15, 2020, <https://www.nytimes.com/2020/04/15/opinion/covid-ventilator-rationing-blacks.html>.

34 Katherine Schaeffer, *The Most Common Age Among Whites in U.S. is 58—More Than Double That of Racial and Ethnic Minorities*, PEW RESEARCH CTR., <https://www.pewresearch.org/fact-tank/2019/07/30/most-common-age-among-us-racial-ethnic-groups> (accessed July 30, 2019); Kaiser Family Foundation, *Poverty Rate By Age*, KFF.ORG, <https://www.kff.org/other/state-indicator/poverty-rate-by-age/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D> (accessed Apr. 17, 2020).

35 White, *supra* note 11.

36 *Id.*

37 See, e.g., Anderson, *supra* note 6; but see Kamm, *supra* note 6.

valuable work would be taken over by others from individuals whose skills would be difficult to replace. Doctors, nurses, and respiratory therapists all fall into the latter category, but maintenance staff, despite the value of their contributions, fall into the former category. No other category of workers could easily take over the work of doctors, nurses, or respiratory therapists, whereas maintenance staff trained in disinfecting other spaces, like schools or outpatient clinics, could move to hospitals. This might seem unfair, but it is an implication of justifying priority on instrumental grounds. Likewise, there is uncertainty about whether doctors, nurses, or respiratory therapists who become severely ill will recover in time to benefit others. If the justification for prioritizing them is saving more lives, then it will not apply if we know they will not be instrumental to this goal.

A distinct and more problematic instrumental reason for prioritizing health care workers is as an incentive to assume the risk of treating Covid-19 patients. To those who believe that these workers should assume significant risk as part of their professional duties,³⁸ this incentive will seem unjust, as G. A. Cohen argues about principles that incentivize the better off to do what morality requires.³⁹

One non-instrumental reason for helping health workers is reciprocity: those who risk their lives to help others deserve some priority in being helped. This rationale could support prioritizing maintenance workers as well as clinicians. But unlike the instrumental rationale of giving health care workers higher priority in order to save more lives, adopting it could conflict with other relevant ethical principles, such as maximizing benefits. For example, a patient who has contributed to saving others might have a poor prognosis. Giving her priority because of her past work would assign her a ventilator that would otherwise have gone to someone with a better prognosis or who would be likelier to help others in the future.

Some commentators also object on grounds of principle to giving higher priority to health care workers.⁴⁰ They seem to think that there is a requirement of neutrality that would prohibit preferential access based on one's role. Whether a clear argument can be developed to support this intuitive response remains to be seen.

Are patients' existing lifesaving resources subject to redistribution?

A distinct and difficult issue is raised by the question of re-allocation. In end-of-life decision-making, most bioethicists agree that with patient or surrogate consent, there is no moral difference between withholding and withdrawing life support. That consensus may break down in triage situations, where patients compete for scarce lifesaving resources. Focus groups suggest that a significant minority of the public find it ethically problematic to remove those resources from patients who still want them and can benefit from them and reassign them to others who could benefit more.⁴¹ This

38 For critical discussion, see generally Heidi Malm et al., *Ethics, Pandemics, and the Duty to Treat*, 8 AM. J. BIOETHICS 4 (2008). Even for proponents of such a duty, it is debatable whether it extends to health care professionals who lack adequate personal protective equipment—a situation frequently encountered in the early weeks of the pandemic.

39 G. A. COHEN, *RESCUING JUSTICE AND EQUALITY* (Harvard Univ. Press 2008).

40 Edmund D. Pellegrino, *Altruism, Self-Interest, and Medical Ethics*, 258 JAMA 1939, 1939–1940 (1987).

41 E. L. D. Biddison et al., *Scarce Resource Allocation During Disasters: A Mixed-Method Community Engagement Study*, 153 CHEST 187, 187–195 (2018).

discomfort appears to be felt by many who would not object to initially assigning those resources based on prospect of benefit.

We are ourselves divided as to whether this judgment is ultimately an ‘endowment effect’ that gives excessive importance to the mere possession of a resource.⁴² While an endowment effect is one possible explanation, it is also possible that the distinction between withholding and withdrawal could have genuine moral significance in one context—here, competition for scarce resources—that it lacks in another.⁴³

Things become more complicated when the resource being removed was given to an individual before the onset of scarcity and has been used by that individual for an extended time. Long-term users worry that their ventilators, which they require for life, may be taken away from them to save patients requiring short-term ventilation. Some guidelines, like those of the New York State Task Force, specifically exempt those users, but the rationale for doing so is disputable. Ventilators are not literally parts of the user’s body or physically incorporated into them, as pacemakers are; indeed, they are often used intermittently and rented from a device company.

Most of those long-term ventilators may not be useful for Covid-19 patients in acute respiratory distress. But if they were, we would be forced to confront complex questions about which rights individuals acquire in external devices that replace or supplement vital organic bodily parts. A multiplicity of factors have intuitive appeal but debatable relevance in answering these questions, including the length of time the individual has used the device, the extent to which it is physically attached to or functionally integrated with their body, the expectations with which the individual received the device, the ‘legitimacy’ of those expectations, and the legal ownership of the device. We might sidestep at least some of these questions by regarding those using long-term ventilators as entitled to retain them simply because they are vulnerable and disadvantaged, and should receive priority on that ground.⁴⁴ This solution would again implicate the issue of how to balance maximizing benefits against prioritizing the least advantaged.

CONCLUSION: IMPLICATIONS FOR PRACTICE

Given the urgency of preparing for shortages of lifesaving resources during this pandemic, it would be irresponsible to end by merely recommending further study of the more difficult issues we have identified. Instead, we conclude, on the basis of an overlapping consensus on many critical issues and recalcitrant disagreement on several others, that there are multiple reasonable approaches to rationing those resources. First-come, first-served is not one of them, however; it will almost certainly have an adverse impact on people who are already disadvantaged without treating patients more fairly than policies that take some account of prognosis.

42 D. Hubbeling, *Rationing Decisions and the Endowment Effect*, 113 J. ROYAL SOC’Y MED. 98, 98–100 (2020).

43 These concerns, however, may rarely arise in practice, since the most widely adopted guidelines, like the Pittsburgh protocol, call for ventilator reallocation only if the patient is deteriorating despite it, which comes close to a futility criterion. Moreover, it may be almost as difficult to estimate the length of time needed for episode survival when an intubated patient is stable or improving as it is to estimate ventilator time before intubation.

44 The New York State Task Force Report’s recommendations provide one example of the incorporation of a categorical ban on the re-allocation of long-term or ‘private’ ventilators into a triage protocol. See New York State Department of Health, *Ventilator Allocation Guidelines*, HEALTH.NY.GOV, https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf (accessed Nov. 2015).

Any reasonable protocol should have several features: first, it should give primary weight to the probability of surviving the current episode; second, it should estimate that probability based on the most individualized assessment feasible, not on pre-existing disease or disability; third, it should exclude any explicit or implicit judgment of the patient's prior quality of life; fourth, it should give priority to those who will use less of the scarce resource over those who will use substantially more if there is reliable, individualized evidence on which to make that determination; fifth, it should favor younger over older patients, at least when other things are equal; sixth, it should take some account of survival beyond the immediate episode, giving priority to those expected to survive more than a few weeks or months.

A variety of different triage protocols could satisfy these conditions. Reasonable schemes will differ in how much of a disparity in survival probability and resource use they take account of; in the role they assign to age or life-cycle stage; in how they take account of differences in survival time beyond the current episode; in how they take account of background injustices that cause some groups to have worse prognoses or greater needs than others; in the priority, if any, that they assign to health care workers; and in whether they impose different standards for the initial allocation and the re-allocation of ICU ventilators. These variations will reflect differences in the weights assigned to the competing values of maximizing benefits and prioritizing the worst-off; differing views on the acceptability of giving priority to health care workers; and the painful but unavoidable imperfection of line drawing when lives are at stake.

DISCLAIMER

The views expressed in this paper are solely those of the authors. They do not reflect the positions or policies of the National Institutes of Health, the Department of Health and Human Services, or the federal government.

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