



The Ethics of Management of Scarce Medical Resources in a time of COVID-9

Troy Moon, MD, MPH

Vanderbilt University Medical Center

The NEW ENGLAND JOURNAL *of* MEDICINE

SOUNDING BOARD

**Fair Allocation of Scarce Medical Resources
in the Time of Covid-19**

Ezekiel J. Emanuel, M.D., Ph.D., Govind Persad, J.D., Ph.D., Ross Upshur, M.D.,
Beatriz Thome, M.D., M.P.H., Ph.D., Michael Parker, Ph.D., Aaron Glickman, B.A.,
Cathy Zhang, B.A., Connor Boyle, B.A., Maxwell Smith, Ph.D., and James P. Phillips, M.D.

Purpose

- Open discussion to the extent possible
- Review ideas from leading ethicists in the field
- Share ideas from our collective experiences

The New York Times

Patient Has Virus and Serious Cancer. Should Doctors Withhold Ventilator?

With a looming shortage of equipment for coronavirus patients in New York City, doctors say they may soon need to make difficult choices.

By Joseph Goldstein, Michael Rothfeld and Benjamin Weiser

• April 1, 2020 Updated 3:59 p.m. ET

Forbes

How Will Doctors Allocate Scarce Medical Resources During The COVID-19 Coronavirus Pandemic?



[Paul Hsieh](#)

Contributor
[Healthcare](#)

I cover health care and economics from a free-market perspective.

BUSINESS INSIDER

Faced with tough choices, Italy is prioritizing young COVID-19 patients over the elderly. That likely 'would not fly' in the US.

[Haven Orecchio-Egresitz](#)

Ethical values underpinning this article

- 1) Maximizing the benefit of scarce resources
- 2) Treating people equally
- 3) Promoting and rewarding instrumental value
- 4) Giving priority to the worst off

Ethical values (cont)

- 1) Maximizing the benefit of scarce resources
 - Can be understood as saving the most lives or the most life-years by prioritizing patients likely to survive longest after treatment

- 2) Treating people equally
 - Could be accomplished through random selection, such as a lottery or on a first-come first-serve basis

Ethical values (cont)

1) Instrumental value

- Can be promoted by giving priority to those who can save others, or as a reward to those who have saved others in the past

2) Priority to the worst off

- Could be understood as giving priority to the sickest or to the youngest who would have lived the shortest lives if they were to die untreated.

Ethical values (cont)

- The proposals for allocation discussed above also recognize that all these ethical values and ways to operationalize them are compelling. No single value is sufficient alone to determine which patients should receive scarce resources.
- Hence, fair allocation requires a multi-value ethical framework that can be adapted, depending on the resource and context in question.

Who gets health resources in a COVID-19 Pandemic?

The four ethical values led the authors to develop a framework based on the following 6-recommendations for allocation of resources:

- 1) Maximize benefits;
- 2) Prioritize health workers;
- 3) Do not allocate on a first-come, first-served basis;
- 4) Be responsive to evidence;
- 5) Recognize research participation; and
- 6) Apply the same principles to all Covid-19 and non-Covid-19 patients

Recommendation 1: Maximize benefits

- This value reflects the importance of responsible stewardship of resources
- Priority should aim both at saving the most lives and at maximizing improvements in individuals' post-treatment length of life
- Operationalizing means that people who are sick but could recover if treated are given priority over 1) those unlikely to recover even if treated and 2) those who are likely to recover without treatment

Prioritizing those who are sick but could recover

- Because young, severely ill patients will often comprise many of those who are sick but could recover with treatment, this operationalization also has the effect of giving priority to those who are worst off in the sense of being at risk of dying young and not having a full life.
- The authors believe that removing a patient from a ventilator or an ICU bed to provide it to others in need is also justifiable and that patients should be made aware of this possibility at admission.

Prioritizing those who are sick but could recover

- Undoubtedly, withdrawing ventilators or ICU support from patients who arrived earlier to save those with better prognosis will be extremely psychologically traumatic for clinicians.
- Some clinicians might refuse to do so. However, many guidelines agree that the decision to withdraw a scarce resource to save others is not an act of killing and does not require the patient's consent.

Recommendation 2: Prioritizing Health Workers

- Critical Covid-19 interventions — testing, PPE, ICU beds, ventilators, therapeutics, and vaccines — should go first to front-line health care workers and others who care for ill patients and who keep critical infrastructure operating, particularly workers who face a high risk of infection and whose training makes them difficult to replace.
- These workers should be given priority not because they are somehow more worthy, but because of their instrumental value: they are essential to pandemic response

Recommendation 2: Prioritizing Health Workers

- Priority for critical workers must not be abused by prioritizing wealthy or famous persons or the politically powerful above first responders and medical staff — as has already happened for testing.
- Such abuses will undermine trust in the allocation framework.

Recommendation 3: Do not allocate on a first-come, first-serve basis

- For patients with similar prognoses, equality should be invoked and operationalized through random allocation, such as a lottery.
- First-come, first-served is used for such resources as transplantable kidneys, where scarcity is long-standing and patients can survive without the scarce resource.

Recommendation 3: Do not allocate on a first-come, first-serve basis

- Conversely, treatments for coronavirus address urgent need, meaning that a first-come, first-served approach would unfairly benefit patients living nearer to health facilities.
- A first-come, first-served medication or vaccine distribution could encourage crowding and even violence during a period when social distancing is paramount.
- Finally, first-come, first-served approaches mean that people who happen to get sick later on, perhaps because of their strict adherence to recommended public health measures, are excluded from treatment

Recommendation 4: Be responsive to evidence

- Prioritization guidelines should differ by intervention and should respond to changing scientific evidence. For instance, younger patients should not be prioritized for Covid-19 vaccines, which prevent disease rather than cure it, or for experimental post- or preexposure prophylaxis

Recommendation 4: Be responsive to evidence (2 examples)

- Covid-19 outcomes have been significantly worse in older persons and those with chronic conditions. Invoking the value of maximizing saving lives justifies giving older persons priority for vaccines immediately after health care workers and first responders. If the vaccine supply is insufficient for patients in the highest risk categories — those over 60 years of age or with coexisting conditions — then equality supports using random selection, such as a lottery, for vaccine allocation.
- Invoking instrumental value justifies prioritizing younger patients for vaccines **only** if epidemiologic modeling shows that this would be the best way to reduce viral spread and the risk to others

Recommendation 5: Recognize research participation

- People who participate in research to prove the safety and effectiveness of vaccines and therapeutics should receive some priority for Covid-19 interventions
- Their assumption of risk during their participation in research helps future patients, and they should be rewarded for that contribution.
- These rewards will also encourage other patients to participate in clinical trials.
- Research participation, however, should serve only as a tiebreaker among patients with similar prognoses.

Recommendation 6: Apply the same values to all patients (COVID-19 positive and negative)

- There should be no difference in allocating scarce resources between patients with Covid-19 and those with other medical conditions.
- If the Covid-19 pandemic leads to absolute scarcity, that scarcity will affect all patients, including those with heart failure, cancer, and other serious and life-threatening conditions.

Implementing rationing policies

- The need to balance multiple ethical values for various interventions and in different circumstances is likely to lead to differing judgments about how much weight to give each value in particular cases.
- This highlights the need for fair and consistent allocation procedures that include the affected parties: clinicians, patients, public officials, and others.
- These procedures must be transparent to ensure public trust in their fairness

Implementing rationing policies

- The outcome of these fair allocation procedures, informed by the ethical values and recommendations delineated here, should be the development of prioritization guidelines that ensure that individual physicians are not faced with the terrible task of improvising decisions about whom to treat or making these decisions in isolation.



Questions

THANK YOU