2020

# The New York City pandemic resuscitation equitable allocation principles

K. V. Rhodes
*Zucker School of Medicine at Hofstra/Northwell*, krhodes@northwell.edu

E. K. Wei

R. J. Salway

S. Natsui

D. Silvestri

*See next page for additional authors*


Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Available online at www.sciencedirect.com

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Letter to the Editor

# The New York City pandemic resuscitation equitable allocation principles



As COVID-19 continues to surge across the United States, it has surfaced our deeply rooted inequities, social vulnerabilities, racial/ethnic health disparities, underinvestment in public health, and lack of universal health coverage. Also exposed are the insufficiency of crisis standards for allocation of scarce resources during the current pandemic,[1,2] leaving frontline providers adrift in how to make critical time-sensitive resuscitation decisions.

In April 2020, as patients infected with COVID-19 flooded NYC area hospitals, an ad hoc group of 30 emergency providers from around the region came together in anticipation of the dire staff, equipment, and resource limitations that were already occurring at some points of care. Concerned about the low survival rates of COVID-19 patients presenting in cardiopulmonary arrest and staff exposure to infectious aerosolizing procedures, we were also motivated by a recognition that rationing at the point of care can be incredibly demoralizing, legally and ethically challenging, and can jeopardize the trust of the communities we serve. We decided to be proactive and not wait until the last ventilator was in use to develop guidance for frontline providers.

The workgroup consulted with medical ethicists, reviewed ethical principles and debated issues of provider duty and medical futility. "Utilitarianism", widely accepted as the basis for allocation in situations of scarcity, seeks to provide the best outcomes for the largest numbers. However, given the grave historic injustices in health care access and delivery, and emerging outcomes disproportionately concentrating COVID-19 infections and deaths among lower-income and communities of color,[3] our group took an approach that builds on the Rawlsian ethical principle of justice.[4] A justice framework

**Table 1 – The New York City Pandemic Resuscitation Equitable Allocation Principles.**

The New York City pandemic resuscitation equitable allocation principles

1. Triage decisions related to resource allocation and advanced resuscitation need to be based on real-time assessments and balancing of the following dynamic factors that are always present in emergency care settings and at critical levels during disasters:
   a. Patient factors (chance of survival[a] and patient/family preference)
   b. People (current patient volume/acuity and available skilled staff)
   c. Hospital capacity factors (environment, space, needed equipment, medications, resources, and the ability to protect frontline staff)
2. Triage decisions will not be based on race, ethnicity, gender, disability, insurance status, immigration status, social class, or other non-clinical factors.
3. There should be no categorical exclusions from advanced resuscitation/ventilator access — with two exceptions:
   a. Patients/families expressed wishes for Do Not Resuscitate (DNR) or Do Not Intubate (DNI)
   b. Patients with medical or traumatic conditions expected to result in immediate or near-immediate mortality even with aggressive therapy[a]
4. All patients should have their wishes for care and/or DNR/DNI status respected and be provided with desired resources, including comfort measures, palliative care, hospice, and, if at all possible, the opportunity to be with or communicate with their loved ones.
5. Age (within pediatric or adult category) will not be used in triage decisions, except as is clinically relevant in determining relative likelihood of immediate survival.
6. Emergency systems of care and hospitals/health systems must do everything possible to anticipate, coordinate, and plan ahead to avoid resource constraints. They must also provide clear communication and anticipatory guidance for frontline providers and timely access to crisis triage teams. Waiting until available resources and staff are overwhelmed will jeopardize the health of both patients and frontline staff.
7. Emergency systems of care and hospitals/health systems have an imperative to protect the safety and health of frontline providers caring for the patient population.
8. Frontline providers and Crisis Triage Teams should convene on a weekly basis, or more frequently as needed during disasters, to debrief with team members, review prior triage decisions, and consider new data, changes in trends in clinical outcomes, and emerging information about treatment effectiveness that might alter the prioritization process.
9. We must plan for de-escalation and provide for mental health aftercare of frontline staff who may experience PTSD, burnout, and moral distress during disasters.

[a] Essentially this would describe medical futility. Note that decisions relating to medical futility should not depend on issues of resource allocation. Futile care should be futile and ethically undesirable whether resources are scarce or not[2].

demands that people be treated as if we had no information about their social or economic situations. It also requires, when possible, that we provide greater help to those who are most disadvantaged. *The New York City Pandemic Resuscitation Equitable Allocation Principles*. (Table 1) were designed to provide ethical guardrails for resuscitation efforts and stimulate a broader discussion around historic trends in health care's neglect and harms done to marginalized communities.

The American Heart Association has since published interim guidance regarding the resuscitation of patients with COVID-19, which seeks to balance the competing interests of providing timely, high-quality resuscitation to patients, with reversal of hypoxemia as the primary goal, while reducing provider exposure to aerosolizing procedures and protecting rescuers.[5] This guidance, while helpful, does not obviate the need for states and health systems to address past harms and firmly align with community values as they co-develop crisis standards of care that can engender public trust. The national trauma invoked by COVID-19 provides an opportunity to reflect on and improve our public health infrastructure, preparedness, and response to disasters. There is also an urgency to examine how structural inequities in the financing and delivery of health and social services in the United States have fostered differential allocation and access in resource-rich compared to resource-poor settings. As a result, we must collectively solidify our acceptance of an equitable, fair, socioeconomically and racially just set of guardrails surrounding limited resource allocation.

## Funding sources/disclosures

There was no source of funding and none of the authors have any conflicts of interest

REFERENCES

1. Institute of Medicine. Crisis standards of care: a systems framework for catastrophic disaster response: volume 1: introduction and CSC framework. Washington, DC: The National Academies Press; 2012. https://www.nap.edu/catalog/13351/crisis-standards-of-care-a-systems-framework-for-catastrophic-disaster.
2. Ventilator allocation guidelines. Albany: New York State Task Force on Life and the Law, New York State Department of Health; 2015. https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf.
3. Nadia J, Siddiqui NJ, Andrulis DP, et al. The COVID-19 crisis: an opportunity to build a fairer, healthier nation. Health Affairs Blog 2020 24:, doi:http://dx.doi.org/10.1377/hblog20200624.928351.
4. Rawls John. A theory of justice. Cambridge, Massachusetts: Belknap Press of Harvard University Press; 1971.
5. Interim guidance for basic and advanced life support in children and neonates with suspected or confirmed COVID-19 from the Emergency Cardiovascular Care Committee and get with the Guidelines® - Resuscitation Adult and Pediatric Task Forces of the American Heart Association. https://pediatrics.aappublications.org/content/pediatrics/early/2020/04/13/peds.2020-1405.full.pdf.

Karin Verlaine Rhodes*
*Department of Emergency Medicine, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, United States*

Eric K. Wei
Richard James Salway
Shaw Natsui
David Silvestri
*NYC Health + Hospitals, United States*

Christine K. Cassel
*Department of Medicine, University of California, San Francisco, United States*

* Corresponding author at: Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Department of Emergency Medicine, Northwell Health, 300 Community Drive, Manhasset, NY 11030, United States.
E-mail addresses: kvrhodes@gmail.com,krhodes@northwell.edu (K. Rhodes).

http://dx.doi.org/10.1016/j.resuscitation.2020.08.129