## Which Patients Should Receive Priority? Triage and the Ethical Allocation of Scarce Resources

Erica Carlisle, MD Assistant Professor Surgery, Pediatric Surgery Affiliate Faculty in the Program in Bioethics and Humanities

1

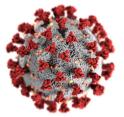
## **Objectives**

- 1. Review the ethical principles that guide the allocation of scarce resources.
- 2. Discuss the ethical challenges of triage.
- 3. Explore the moral distress that may occur during triage.

2

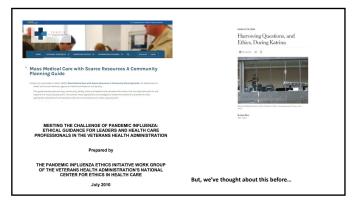
## Perhaps you've seen this image before?

- Who should get the
- Who should get the vaccine? Who should get the ventilator? Should health care workers be prioritized? What's a health care worker? What about kids?

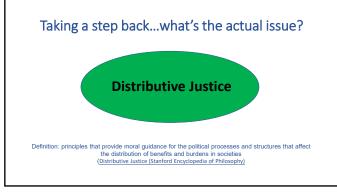


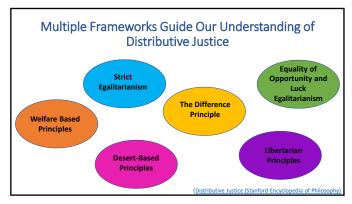
We've thought a lot about triage and allocation of scarce resources these past couple of years...

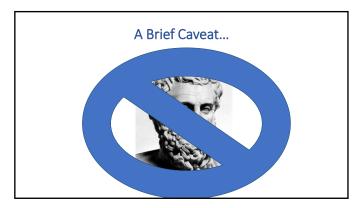




And, we'll think about it again...







	1
Strict Egalitarianism	
10	
The Difference	
Principle	
11	
	1
Equality of	
Opportunity and Luck Egalitarianism	
Luck Eguitarianism	
12	

Welfare Based Principles	
→ Utilitarianism	
13	
Desert-Based Principles	
14	
Libertarian	
Principles	

Should patients who use IV opioids be denied repetitive	
heart valve replacements for endocarditis?	
Strict Egalitarianism: Yes, if valve replacement is indicated it should	
be offered	
Welfare-based Principle (Utilitarianism): No, this would fail to	
maximize welfare	
Libertain Division No. No. and add a second of the state of a section of	
<u>Libertarian Principle:</u> No, IV opioid users are at liberty to continue self-harming behavior, but there is no obligation on others to provide	
treatment	
16	
10	
Given the varying frameworks, it makes sense that we	
may differ in how we practically integrate principles of	
distributive justice.	
distributive justice.	
Is prioritization of a given framework context dependent?	
Reflective equilibrium	
17	
17	
	1
Discussion	
How do we choose between the different distributive justice	
frameworks and respond to the criticisms of each?	
How have you seen conflict with prioritization of various frameworks of	
distributive justice arise? Comments?	
How have you overcome these conflicts?	

Returning to the questions at hand...how do we determine which patients to prioritize when resources are scarce?

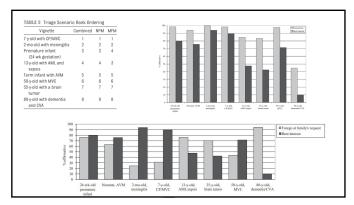
We know that people vary on how they identify who to prioritize even when resources are presumed to be plentiful

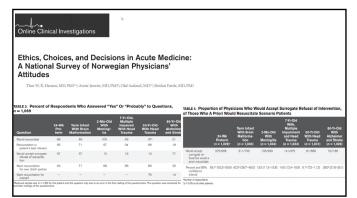
19

	heoretical Medicine and Bioethics (2007 OI 10.1007/s11017-007-9052-y	) 28:413–425	© Springer 2	007
	ANNIE JANVIER, KAREN LYNN	N BAUER, and JOH	N D. LANTOS	
	ARE NEWBORNS MORALLY CHILI	DIFFERENT F DREN?	ROM OLDE	R
2mo old Previously healthy Bacterial meningitis Poor prognosis Likely neurological impairment	Obligatory treatment  Patient 1	Parental discretion	Patient 2	Born 24wk gestation 700g Stable following intubation 50% survival If survives, likely "normal"

20

		APPENDIX 1 Clinical Vignettes Presented in the Survey Visnette Scenario		Prognosis For		Neurologic Prognasia	
		regional	rights Salari	Servinel	Normal	Mid Impairment Severe Imp	
		Premature infant (36 wk destation)	Precipitous delivery at 2N wk gostation, 650 g Geographics for aget infant there was no	50%	50%	40% hyperactivity, learning dearder	15%-25% dealness, I CP, or psychomoto
		Term infant with	Expensional for age when there was no time for prenatal counseling, the infant does not breathe efficiently Term infant with in utero disense of a	50%	50%	Alts	Dr. or psychonics development sign abnormal 194, 199.
		EM	cerebral AVM, the infant does not breathe efficiently				
Ethina of Donosaitation of	t Different Chades of Life	Wealthy 2-mo-old with besteriel meningitis	Previously healthy 2-mo-old infant presents to emergency department with a history of fever, irritability, and respiratory pauses, he is taxic-appearing and has	san	50%	40%	19%-25%
Ethics of Resuscitation at A Survey of Perinatal Phy			abnormal neurologic examination findings, and lumbar purcture confirms the diagnosis of bacterial meningitis; the infant becomes appeic				
METANE Stanis Laurethal Milliand Status Status Sillian Status Sillian Status St	Pyreld with CP, post-MVC	Ty old bey with CP I walks with a limp without assistance, plays most sports, hearing deficit corrected with sides, hyperactivity, learning disorder! presents	50%	50% sha	nce of return to baselin	,	
Bree Andrews, MD, MPH; L. Knoll Lankin, BA, "William Meadow, MD, PhD;" and Annie Janvier, MD, PhD? "Opportment of Palidatins, University of Medican, An Arbor, Michigan, "Emory University School of Medican, Assura,	revealed that reconatelegats about one relief memory presented to not uphalid the best-interest standard in making decisions for preterm infants in need of life-saving resussition, in contrast to other patients with similar prognoses for survival and disability.		to emergency department after an MVC; he has shallow breathing, a seisure that steps with medication, and moderate to severe edoma on brain CT; he has another rejoiace of seisure, and his airway is				
Serges "Separtment of Prisidence, University of Chicago, Chicago, Binosis, and "Separtment of Prisidence, University of Montreal Mandreal, Quadeo, Canada KEY NOBES ethics, biodeficial Issues, personhood, medical ethics, quality of	WHAT THIS STUDY ADDS: This study's results reveal that, when presented with a variety of clinical vignettes, decision-making by US neconologists and high-risk obstetricians in emergent	15-yeld with AML and sepsis	compromised 15-y-old with AML with cerebral involvement arrives to emergency department by ambulance with septs shock and need for emergent intubation	5% (long-term after bone marrow transplant)	20% for proble	ong-term neurologic se ms	quelas, include major s
since, uncontain rease, proceedings in the service quarty or file, survival registration researching in Tage reasoning subcasion, withfulling in Tage or quantiting, percentaing, solidation, elements quite with regist wall, condown inter, and substrate, and supply and, condown inter, solidation, desirably, psychorochir reparement.	solutions is usus, personation, theorie emics, quarty or must progress, resolution trags, resource on, withholds (invariant, resonation), perinatiogs, to, externly like lith weight faller, respectively. (particularly in the case of extremely preterm infants).	35-yeld with brain tumor	Previously healthy 30 yet do presents to emergency opportment with 1 mo al worsensing headschie and mild dysphagis, he is disoriered and has alreamed neumragic examination findings, torain CT shows a large right elided braum consistent with glicelations multiforms, before yes have relayed findings to the patient or the family, he has become unresponsible.	5% Get 5 yo	cagel	of sangical resection a live and verbal impairm	ent, and inability to wor
		Healthy 50-y-sid with cervice! apine trauma	50 y old patient arrives to energency department after an MTC with multiple fractures, including a nondisplaced CB werlehred freedure; he is obtained and requires fluid resupdation; the patient needs to be intuited, and you do not have the time to speak with the family	50%	hemig	of abnormal outcome, regia	agesticant probability o
		80 y old with dementia and acute CVA	88 y old with moderate Alcheimer classase (recognises only class family members, needs help with daily activities, frequently wanders off brought to emergency department by ambulance with oxide left- sided paralysis and aphasis, brain CT shows massive stress, and the oxident	50%	50% cha	nce of return to previou	s health state





23

## How might people have arrived at these decisions? Veil-of-ignorance reasoning favors the greater good Karen Huang\*\*h\*, Joshua D. Greene\*\*, and Max Bazerman\* \*Department of Psychology, Harvard University, Cambridge, MA 02138; \*Harvard Business School, Harvard University, Boston, MA 02163; and \*Center for Brian Science, Harvard University, Cambridge, MA 02138; \*Harvard Business School, Harvard University, Boston, MA 02163; and \*Center for Brian Science, Harvard University, Cambridge, MA 02138; \*Harvard Business School, Harvard University, Boston, MA 02163; and \*Center for Brian Science, Harvard University, Cambridge, MA 02138; \*\* Edited by Susan T. Fiske, Princeton University, Princeton, NJ, and approved October 22, 2019 (received for review June 13, 2019) PNAS

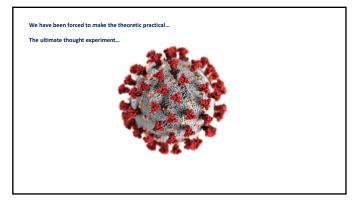


The previously mentioned studies did not account for limitations in resources...

Considerations regarding allocation of resources may be even more challenging when resources are scarce

26



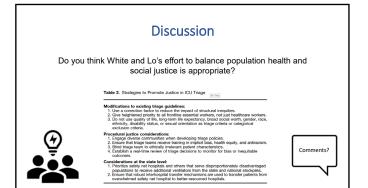


Triage of Scarce Critical Care Resources in Covering Cove

29

# Douglas B. White, MD, MAS Pulses of Osset Core Medicine, Medicine, and Clinical Transitional Science Theories of Osset Core Medicine, Medicine, and Clinical Transitional Science Theories of Core Medicine, M

Mitigating Inequities and Saving Li COVID-19 Pandemic	ves with ICU Triage during the
∂ Douglas B. White¹ and Bernard Lo <sup>2,3</sup>	
<sup>1</sup> Program on Ethics and Decision Making in Critical Illness, Departs of Pitisburgh, Pitisburgh, Pennsylvania; *Department of Medicine, S Francisco, California; and *The Greenwall Foundation, San Francisco	
ORCID ID: 0000-0003-2269-4173 (D.B.W.).	
Abstract The burders of the communitum disease (CAVID. 30) pandensis have been diseased as the communitum of the disadvantaging groups, including the proce and Bids. Listins, and Indiagnoss communities. There is a black as the communitum of the c	should simultaneously promote peopletion health outcomes and minigate health measures. These efficient goods are sometimes and minigate health measures and minigate health measures of the source of

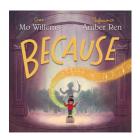


What Covid Has Taught the World about Ethics Erekel J. Emanuel, M.D., Ph.D., Boss E.G. Upshar, M.D., and Maswell J. Smith, Ph.D.	NT THE WORLD ABOUT ETHICS			
substantial challenges to so- cieties and health systems glob- alls. Marro of these challenges have and thus chies (see Table 1). the pa	ough global leaders have only invoked "solidarity," ," and "fairness" during indemic, they seemed un-			
	Table 1	Role of Values in Decision Making during Public Healt	Emergencies.	·
	Point at Which Values Enter into Pandemic Decision Making	Explanation	Sample Policy Questions	
Identifying the values that can guide future decision making	When explicitly invoking values	Equity, fainness, solidariny, nutri, security, and transparency are all transplers of values explicit- ly invoked by decision makers. Values reflect adoptiments about what is important or of worth, which can from the basis for ethical action. Ethics involves the systematic study of the values that do, or ought to, underprin choices in pandemic response.	<ul> <li>What does equity require in the allocation of scarce vaccines?</li> <li>Does solidarity mean ensuring that people in low- and middle income coarriers re- ceive first and second vaccine doese be- fore people in high-income countries re- ceive booster doses?</li> <li>What does a commitment to transparency or inclusion mean for decision-making processes?</li> </ul>	
	When establishing policy objectives	Because policy objectives reflect judgments about what is important or of worth, they are closely linked with values, even if that link in ota always made explicit. Science alone cannot tell us which objectives are important or of worth; val- ue judgments are required.	<ul> <li>In a vaccine rollout, should we aim to mini- mize deaths, protect fooether workers, or protect critical infrastructure (e.g., services essential to the health and well-being of the public)?</li> </ul>	
	When ravigating trade-offs	When two or more objectives come into conflict, values come into conflict. Decision makers must determine how much weight to give cer- tain values and assess whether the promotion of one or more values should be traded off against the promotion of other values.	Should we prioritize suppressing a pandemic virus even if doing so could harm the economy!     Should we jeopartize in person schooling for the sake of reducing community transmission of a pandemic virus?	
	When navigating uncertainty	When decisions must be made in the context of un- certainty, they may turn out to be awong. Values inform the weight we attach to the conse- quences of these possible errors and our judg- ments about how much risk to accept.	Should vaccinated persons be exempted from public health measures such as isolation and quarantine?     Should the interval between vaccine doses be extended to ensure that more people necevier first doses more quickly?	-

## Fundamental goals to apply the next time we allocate scarce resources...

Value	Definition			
Maximizing benefits and preventing harms	Prioritization of a good or service should maximize benefits and minimize harms. Harms may be broad and include both health harms (e.g., morbidity and mortality) and non-health harms (e.g., poverty). They can also derive directly from the disease or indirectly, as health system functioning is compromised.			
Mitigating disadvantage	Special concern and prioritization should be given to people who are disadvantaged be- cause of their income or because of discrimination based on their race, ethnicity, reli- gion, or other factors.			
Reciprocity	Preferential allocation of medical resources should be given to people who, in the past, have mitigated harm for others and faced a disproportionate burden (e.g., research participants and food-processing workers).			
Instrumental value	Benefits should be provided and harms mitigated for people who can, in the future, mitigate harms and disadvantage for others. Instrumental value is not an independent value but facilitates realizing the other values, particularly maximizing benefits.			
Equal moral concern	People should be treated as moral equals, and discrimination on the basis of morally ir- relevant characteristics such as race, ethnicity, or religion should be avoided. People in different circumstances (e.g., in communities with higher or lower burden of dis- ease) can typically be treated differently given unique needs.			

34

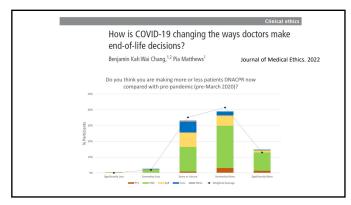


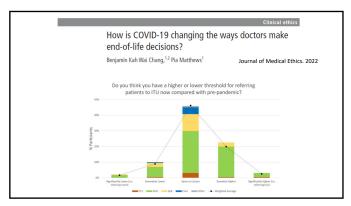


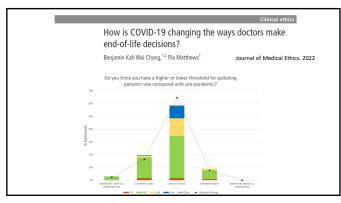
The music changed her...and the pandemic changed us.

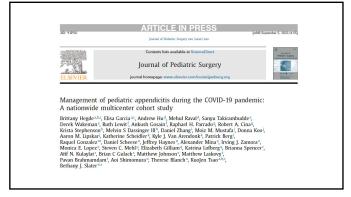
35

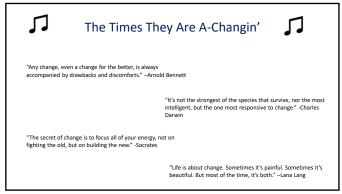
Changes in our clinical practices are well documented



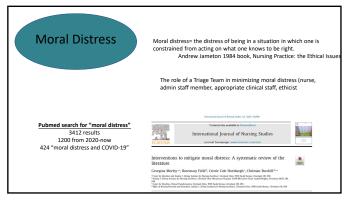


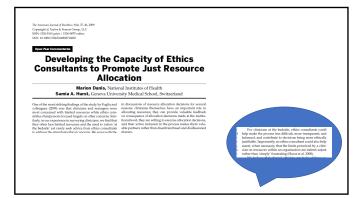


















### Discussion

What are some ideas for mitigating moral distress related to resource allocation that you have or that you have implemented at your institution?





47

## **Final Thoughts**

- Develop intentional frameworks grounded in principles of distributive justice to help consistently, transparently, and equitably determine which patients to prioritize when resources are scarce
- Mitigate moral distress at the personal, local, and national level
- Remain thoughtful, reflective, and flexible to modify allocation frameworks

