

Ethics for Lunch April 21, 2020  
Ethical Issues in Responding to the COVID-19 Crisis

The April Ethics for Lunch addressed ethics issues arising as a result of the COVID-19 pandemic, specifically the allocation of scarce resources like ventilators. The session reviewed some of the findings presented at the April 19, 2016 Ethics for Lunch on “Public Engagement and the Allocation of Scarce, Life-saving Medical Resources.” Given the need for social distancing, the April 2020 Ethics for Lunch was delivered online and attracted over 100 audience members.

Summary of key points:

1. Hospitals must increase their surge capacity in responding to the COVID-19 pandemic, so that the need to allocate resources does not come to fruition. “Flattening the curve” allows health care systems to better respond to the crisis, so that demand does not outstrip supply.
2. In considering the ethical underpinnings of allocation decisions, it should be recognized that allocation is part of health care in non-pandemic times. Solid organs for transplant are a limited resource, as are very expensive therapies and technologies. For these resources, decisions have to be made as to which patients have access to them and who ultimately gets them. Two main principles in allocating these resources are equity and efficiency.
  - a. Allocation of cadaveric kidneys relies on a version of “first come, first served” that gives an equal chance to all potential recipients, without consideration of how sick the individual is (an Equity concern) or how many life years the recipient would gain from the organ transplant (an Efficiency concern).
  - b. Allocation of cadaveric livers is based on need, with the organ going to the sickest patients (Equity) but gives an equal chance of getting a transplant to all by waiting until patients progress to a higher priority score (Efficiency).
3. An allocation plan during a pandemic must be well-crafted, justified, and public. The process for applying it needs to be transparent to maintain the trust of those providing care and those receiving care. An allocation plan must be fair, understandable, and communicated to patients, families, and providers with empathy, sincerity, and support.
4. Using the framework that was presented to the state in 2017, a multidisciplinary group convened to operationalize an allocation plan across the major health systems in Maryland. Knowing the process had been thoroughly vetted and was going to be followed in all hospitals could ease some of the concerns patients might have about receiving disparate care based on the hospital they went to. Vetting the allocation plan with the state government ensures that it adheres to the law and is another means of trying to build trust with the public.
5. A Mixed-Method Community Engagement Study by Daugherty Biddison et al and published in 2018 asked two main questions of participants: (1) What should we do in situations in which there are more patients needing ventilators than there are ventilators to us? (2) Should health care providers ever be allowed to remove a ventilator from 1 patient who needs it to survive and give it to another patient who also needs it to survive?

6. Participants in the community engagement study (>300 people in focus groups of laypersons, health care workers, and disaster workers) were asked to make allocation decisions based on six ethical principles:
  - a. Prioritize those most likely to survive the current illness
  - b. Prioritize those most likely to live the longest after recovery (considering comorbid conditions)
  - c. Prioritize those who have lived fewer life stages
  - d. Prioritize those who have particular instrumental value to others in the pandemic (like health care workers and first responders)
  - e. First come, first served
  - f. Lottery
7. The public engagement study has several insights: Maintain transparency and public awareness, find technological fixes (like building more ventilators) before resorting to allocation, give resource to a loved one or someone in greater need, use a combination of ethical principles in tailoring protocol, prevent bias and replication of existing social inequities to come into allocation decisions, prevent “gaming” of the system like jumping the queue, explore legal ramifications (so work with the state in allocation planning), and prevent emotional, psychological, moral distress for those involved in allocation decisions (such as making sure health care workers at the bedside are not making the allocation decision).
8. In terms of the ethical principles, participants in the community engagement study favored offering the resource to those likely to survive the current illness (71%), those who will live longer (56%) and those who have instrumental value to others (48%). Use of lottery had the lowest favorability (4%).
9. Based on the compiled results, an expert working group of practitioners, ethicists, public health lawyers, and communication specialists translated the findings into recommendations, which led to the 2017 Maryland framework and was published in the journal *Chest* in 2019. The proposed model included a point system for short-term survival, long-term survival (one year mortality based on pre-existing co-morbid conditions), secondary considerations like pregnancy and response to therapy, and life cycle considerations. The latter criteria had a lot of discussion but was ultimately included in the framework based on the idea that younger people have had less of an opportunity to experience life than older patients. The lowest point age category was 0-49 years old to encompass children and adults responsible for the care of children or elderly family members.
10. To operationalize the prior work into the current COVID-19 pandemic, the multi-disciplinary task force created a triage process. The first important point is that the triage team that makes the allocation decisions is independent of the patient’s care team. The triage team is made up of three clinicians with a triage officer (who will likely be a physician), a critical care nurse, and another health professional like a respiratory therapist or pharmacist. The triage team can have consulting members--for instance, ethics, legal, or representatives from Diversity and Inclusion.
11. The triage team conducts an evaluation, and if an allocation of a scarce resources is necessary, the triage officer will present this to the patient’s care team and to the family. A secondary review can be requested at that time. The secondary review team is made up of three different

clinicians with consultants as necessary. The secondary review the process by which the triage team came to its allocation decision to be sure no bias was introduced into its deliberations.

12. The allocation process is similar to the earlier Maryland framework:

- 1) Step 1 considers short term survival as measured by an objective organ failure score (the Sequential Organ Failure Assessment (SOFA) score for adults, PELOD-2 for pediatric patients, nSOFA for neonatal patients, and SNAPPE-II for very young neonatal patients).
- 2) Step 2 considers survival at one year by looking at the patient's comorbid conditions (e.g., metastatic cancer, advanced heart failure). Institutions can decide how they will gather this information. One option is for the triage officer to look at these conditions and report them without other patient identifiers to the other two team members to assign a score to the patient. A second option to get this information is to have an abstractor outside of the triage team collect the comorbidities and present them to the team to make the process as fair and unbiased as possible.
- 3) Step 3 adds the short-term and long-term scores together. A pregnant patient would be credited a point in this step.
- 4) Step 4 looks at the total score and individuals with the highest score would then be considered for allocation based on the amount of resource available.
- 5) In Step 5 (awaiting guidance from the state before finalization), individuals who "look alike" (i.e., have the same composite score) would be differentiated based on their response to therapy (who is getting better and who is getting worse). Patients placed on a ventilator are given a period of time (likely 7 days) to see if it is a viable therapy for them (i.e., if it is working to help them recover).
- 6) In Step 6, if there are patient that still look similar, then the tie-breaker is a lottery, and the resource would be allocated based on that.

13. Health equity needs to be integrated into the scarce resource allocation framework. Health equity means that everyone has the opportunity to attain the highest level of health. Inequities result when barriers prevent individuals and communities from accessing resources and achieving their full health potential.

14. Vulnerable populations have to be considered in five main domains: individuals who need support to be independent in daily activities (independence), individuals who have limitations that interfere with receipt of and response to information (communication), individuals who require the support of caregivers, family, or friends, or have limited ability to cope in a new environment (supervision), Individuals who cannot drive because of the presence of a disability or the absence of a vehicle (transportation), and individuals who are not self-sufficient or do not have adequate support from caregivers and need assistance with managing medical conditions (medical care).

15. To address health equity concerns, adaptations were made to the 2017 Maryland ASR framework:

- a. adding specific anti-discrimination language into the framework document
- b. removing age as a criteria (although community members in the earlier study thought that it should be a consideration)
- c. advocating for disability-specific principles (which several states have not done and there have been repercussions) including not assigning value based on perceptions of functional level or needing support, not assuming triage teams are free from conscious

or unconscious bias, and not re-allocating ventilators for individuals who are chronically dependent on a ventilator (and come into the hospital with their “own” ventilator)

16. Operationally for the health equity implementation plan to support the scarce resource allocation plan, several steps will be put in place: unconscious bias training and the triage and secondary review teams, literacy adapted talking points and handouts for patient education on the various triage and review scenarios, translating education materials into the top five languages in the Johns Hopkins Health System (Spanish, Chinese, Korean, Russian, and Arabic), collaborating with language services for individuals needing communication support, and allowing a family member, personal care assistant, communicator, or other disability service provider to assist the patient with communication in the hospital.
17. Triage and allocation decisions create ethical tension since the focus shifts from a patient-centered ethical framework (respect for autonomy and the preferences and choices of patients as they understand the balance of benefits and burdens) to a public health ethical framework focused on the health of the population. The patient-centered approach favors “first, do no harm” and access is generally determined by first come, first served or on severity at time of presentation, whereas a community ethic thinks about justice in terms of efficiency and equity.
18. The pandemic situation creates a sense of moral distress, with clinicians feeling like they have violated core value commitments, that they are abandoning their patients, or that they are not fulfilling their fundamental moral obligations as clinicians. Issues of constraint or duress can feel like a threat to one’s integrity and has the potential to leave moral residue (e.g., guilt, shame, regret, remorse). Many of the situations we are facing now are unavoidable and yet clinicians may still hold themselves accountable in ways that are unrealistic and disproportionate to the situation.
19. It is important to help clinicians sustain or restore their integrity in response to moral adversity. Health care professionals are already resilient by virtue of the work they do, but they may need assistance in harnessing their inner resources or the resources of the community when confronting the realities of the pandemic. Clinicians need to do this so as to avoid harm to themselves or others.
20. Simple measures in daily life can create opportunities for resilience: pausing to check in and acknowledge the reality we are in, recognizing what we do have control over, connecting to our purpose and calling as a way to orient our attention, realizing that there is a lot we do know how to do, and remembering we are not alone. It is important to create space to come together and share as a community, as well as garner the resources for support that exist at the institution.

Questions and Answers:

**1. How long will it take for triage teams to do this evaluation? Or how long will this be expected take, especially with 2 teams and when a patient maybe crashing?**

**Answer:** Johns Hopkins has designed some tools in the electronic medical record to assist with efficiency in handling this information for the triage officer and triage team. The triage team is expected to meet at least once a day (likely more than once a day depending on the amount of allocation that has to

occur). The triage officer is being kept informed of how scarce the resource is and can set out a plan for the rest of the day looking at all of the patients for whom allocation scores may need to be calculated. Obviously, there may be a facility where an automated process is not available, and that facility will have to figure out what process will work for its triage team.

For “crashing” patients (e.g., in respiratory distress), clinicians are instructed to manage the situation in front of them without thinking of the scarce resource process. If a patient needs to be intubated, they should be intubated and stabilized with manual ventilation. The triage team will be called at the earliest convenience and then the triage process will go from there.

It is also important that patients in the ICU or at risk of having clinical decompensation have discussions with clinicians to elicit the patient’s preferences in light of their severity of illness and prognosis. These conversations should continue over the course of the hospitalization and may affect the availability of resources as patients progress.

## **2. So the secondary consideration based on life cycles has been completely removed from the algorithm, correct?**

**Answer:** Life cycle had been in the original framework as a tie-breaker when there were two or more patients with equal composite scores and similar clinical trajectories. The community preference and input landed on life cycle as an important criterion by which to make allocation decisions, but in the real life application of the framework, it became clear that there were appropriate concerns from communities representing people who worried about discrimination against those who were disabled or elderly. Concerns were raised about federal anti-discrimination laws being violated by the inclusion of those kinds of metrics into any allocation framework, so age was removed from other states’ plans and from Maryland’s. The counter-argument is more life years can be saved if you allocate preferentially to the younger person, all other things being equal (i.e., the composite score). Given the debate and controversy, however, the state plan did not permit inclusion of the age criterion.

## **3. Appreciate the focus on implicit biases and diversity. However, there has been a lot of press about how minorities are disproportionately affected, and that actually because they are more prone to having comorbidities/underlying conditions which result in worse outcomes, they would have a “worse” score when it comes to likelihood of survival and likelihood of long term survival. How might these triage protocols/frameworks take into account these more subtle forms of disparities, and prevent further worsening these disparities.**

**Answer:** The scoring system only considers severe comorbidities, namely those that confer a prognosis of one year or less. Just having a comorbidity does not affect the scoring with regard to long-term survival; it has to be severe and consequently would pertain to all persons regardless of race and ethnicity. Minority populations, however, are at risk for health disparities for a variety of reasons, and early data on the pandemic suggest worse outcomes from COVID-19 for African-Americans. It will be important if Maryland reaches the point of using the algorithm, then there should be real time evaluation to look at demographic distribution of triage decisions to determine if protocols reflect any bias. Protocols are built into the triage scoring process to remove defining characteristics like age, gender, race, and ethnicity so that the evaluation is as objective as possible and bias is reduced.

## **3. Our ethics network discussion this morning raised the issue of high demand for dialysis for COVID patients due to fluid overload issues. We tried to work through whether the triage scoring would work**

**if dialysis needed to be triaged if in short supply, but there are many ways dialysis capacity is different from ventilators. Also, it's unclear what to enter for the renal component of the SOFA score for someone on dialysis (corrected creatinine/urine output?). Any insights on this?**

**Answer:** The initial focus for resource allocation in the COVID-19 pandemic has been on ventilators, because of the disease process and because those decisions in the moment are life or death. But ventilators are not the only scarce resource that we are worried about. Other resources that might need to be allocated are blood (primarily because the supply might be less due to social distancing), convalescent plasma (a potentially promising treatment), ECMO machines, medications like hydroxychloroquine, and dialysis.

For dialysis, it is not just the machines, but it's also worrying about the dialysate solutions and the staff to run the machines. When the resource allocation task force initially convened, it was thought that an allocation process for dialysis would need to be developed, but then it looked like the supply could meet the demand. The difference between dialysis machines and ventilators is that there is only one ventilator per patient (unless there is off-label dual ventilator use, use of which has been discouraged by critical care specialists), but the same dialysis machine could be used on multiple patients. If continuous renal replacement (so one machine per patient) use increases, then less machines are available for intermittent dialysis and more dialysate is being used. Thus far, Johns Hopkins has not created an algorithm for dialysis. If demand increases, then a process may need to be developed. It is uncertain at this time whether SOFA scores would be used to determine allocation, as there may be other measures to predict short-term success or failure and that take into account whether the patient has evidence of other organ failure.

#### **4. What is the status of the state legislation concerning the allocation of resources proposal?**

**Answer:** The state leadership is aware of the potential need to allocate resources, but the hope is that an allocation framework will not have to be used. Like other states, state leadership has to figure out what the protocols will look like and determine what the right timing would be to institute such protocols.

#### **5. How does the process that went into developing the allocation framework inform what we do in the future, even if it is never implemented?**

**Answer:** The 2017 Maryland ASR framework, which is by all accounts, has been a great resource for how the public thought prospectively about these issues in a more hypothetical context. Now, the framework can be revisited. Now that we are living through the pandemic, it would be important to go back and ask the public, "How do you think about the allocation of scarce resources? Has there been any change in your approach that might come from going through this lived experience? What is the public's perspective in allocating scarce resources?"

The experience of creating the allocation plan has forced us to look at our standard operating procedures and the values and norms that we apply in our work every day. We have the opportunity to really use this experience to see if some of the progress that we've made could actually be implemented into our day to day practices, instead of going back to the way that we've always done thing. This process over the past 6 weeks can be used as a vehicle to propel us forward to do things in new ways, and to use the insights that we've gained to shift some of our established norms and practices.

**6. Given concerns about risks to clinicians, have you implemented any particular policies to address concerns regarding infectivity during CPR for patients with CoVID? If such policies exist, how are patients and families informed about them?**

**Answer:** Johns Hopkins is following the guidance published in Circulation in April 2020, “Interim Guidance for Basic and Advanced Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19.” Because code responders have to don PPE if they are not already wearing it, patients are informed that this may result in a delay in some aspects of CPR.

**7. Are resources, such as patient resources and guidance, available to other hospitals in the community?**

**Answer:** Talking points (scripts) and patient education materials have been developed and can be made available. It is anticipated that state government leaders may expect each facility to create patient education materials appropriate to their own patient population. A helpful national resource is VITALtalk.

**8. Are you doing simulation training with the triage protocol and if so, what have you seen as far as outcomes?**

**Answer:** We have not yet begun simulation training. SOFA scores are automatically being calculated in the electronic record and are available as a dashboard item for all patients. The tool for assessing one year mortality is under development. Hypothetical cases have been discussed to gain familiarity with using the allocation algorithms for a variety of resources. Implicit bias training for the triage team and secondary review team is expected to start in the next week.

## References

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