Ethics of Rationing Scarce Resources in Healthcare

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Abstract: *The rationing of scarce medical resources already occurs within the United States. However, the principles that current systems use to ration these medical resources are questionable. Scarce medical resources such as intensive care unit beds, vaccines, and organs are often rationed on an unethical first-come, first-served basis. This principle can result in patients being prioritized for treatment based on their influence and wealth. To create an ethical system for rationing, a list of moral principles that gives certain patients preference is necessary. These principles would establish the base through which a rationing system can be built. Based on the works of various bioethicists, philosophers, and community members six principles of rationing medical care are deemed ethical. These principles are: prognosis, quality of life, sickest first, utilitarianism, age, and decision by lottery.*

Introduction

Francis Barnes received a call from the hospital ending his sixteen-month-long wait for a kidney transplant. Despite the good news, Hurricane Sandy was at its peak. Though the power was out, Barnes needed to hazard the commute into Western Philadelphia. He reached the University of Pennsylvania Hospital in time, receiving the life-saving transplant. Stories like Barnes were not uncommon during Hurricane Sandy; local hospitals reported a normal quantity of transplants occurred, despite the storm (Sapatkin). Barnes was lucky; his sixteen-month wait was significantly less than the three-year national average for a kidney transplant (Leichtman 949). These expansive waiting lists for kidneys and other organs reveal vast demand; Barnes's story exhibits the extremes patients take simply to receive early treatment. Rationing describes when limited medical resources deny patients potentially beneficial treatments. Rationing already occurs in the US, though not enough consideration goes into the ethics of the limited resources'

distribution (Aaron 4). Certain practicing physicians and philosophers, however, are coming up with principles that would guide rationing during scarcity; Govind Persad, Alan Wertheimer, and Ezekiel Emanuel (PWE) prioritize specific ethical principles involved in the discussion of rationing. Their work has become very influential, cited over seventy-five times (according to the Web of Science Database). PWE developed a list of key ethical principles, forming a basic framework for an ethical rationing system. In the study of PWE's paper and the works of other ethicists, certain ethical principles are needed to ethically ration scarce medical resources. These principles are based off of both moral considerations and empirical evidence. These key, guiding principles for rationing include: prognosis, quality of life, sickest first, utilitarianism, age, and decision by lottery.

Background

The ethical principles analyzed will be for rationing due to scarcity, when potential beneficial treatments are denied. Rationing, for this paper, is defined as: "the situation in which people who can afford a commodity are unable to buy it because of scarcity" (Aaron 6). Examples of rationing can be observed when there is a shortage of vaccines in a pandemic, a scarcity of organs for transplantation, and a limited number of ICU beds in the emergency department (Persad 424). Rationing is prevalent in America. For example, in 2003, "only 28 percent of 56,521…patients awaiting kidneys received transplants….[In the same year] 3,700 in the United States died before a kidney became available" (Aaron 35). Patient deaths for those on the kidney transplant list have grown to nearly 7,000 in 2008 (Gill 444, Leichtman 949). Unfortunately, kidneys are not the only type of medical resource scarce in the US.; other organs, vaccines and intensive care unit beds must be taken into account. Our healthcare system, however, does not allocate these resources ethically.

In an attempt to establish a morally sound system of rationing, it is vital to know which rationing principles are ethical. These principles would form the base of the rationing system. The ethical base of a

morally acceptable rationing system includes six important principles consisting of prognosis, quality of life, sickest-first, utilitarianism, age, and decision by lottery. Treating patients on a first-come first-served basis, a principle that is already in place, will be analyzed and demonstrated to be unethical. Although there are other principles to be considered, the framework for this paper is focused on evaluating the ethics of these seven principles.

Principle I: Prognosis

Prognosis describes a scenario in which current scientific knowledge establishes the patient's prospect of recovery; patients with the highest chance and length of survival are prioritized (Langford 12).. Prognosis, therefore, optimizes potential benefits when using limited resources. PWE supports prognosis in rationing decisions because empirical results demonstrate higher patient survival rates (Persad 425). PWE also describe how Prognosis is already considered a successful world-wide ethical rationing principle, practiced in systems such as: the United Network for Organ Sharing (UNOS) points systems, Quality-adjusted life-years (QALYs), and the Disability-adjusted life-years (DALYs) (428).

Many research studies were conducted, showing prognosis to be a publicly accepted option. The analyses of ten independent studies demonstrate most participants favoring prioritization for patients who have the best prognosis for treatment (Tong 800, Wilmot 202). These studies were conducted using a survey population consisting of participants from different backgrounds, demographics, and cultures. This diverse support indicates widespread belief that prognosis is a publically-suported ethical principle.

Some, however, argue that prognosis should be the only ethical principle considered. Ethicists point out this argument's flawed logic, citing the example that many times the difference between two patient's prognoses is insignificant (McMillan 48). If Patient A might have an 80% chance of surviving while Patient B has a 60% chance, McMillan , a bioethicist, argues that it is unethical to completely ignore Patient B's

high chance of survival (49). Prognosis, though vital, cannot be the only principle important for establishing an ethical system of rationing. Other principles are necessary. A decision by lottery would allow Patient Aa greater chance to be saved, but will not entirely ignore Patient B.

> Just as prognosis cannot be the only principle considered, no single ethical principle can; it would inherently disregard prognosis. This is why ethicists such as PWE and Kerstein argue that any ethical system of rationing must consist of a multi-principle approach (Persad, *Standing,* 46).

Principle II: Quality of life

This second principle prioritizes patients who, based on their health history, are likely to have a better quality of life. Quality of life is based on a medical standard rather than the patient's socioeconomic conditions; the affluent aren't given preferential treatment. Bioethicist Samuel Kerstein describes a scenario in which a patient who can actively engage with their surroundings, their loved ones, and their projects should be prioritized over someone who is chronically unconscious and unaware of his surroundings (Kerstein 7). Kerstein's example shows that like prognosis, quality of life maximizes the benefits provided by the treatment.

Similarly, multiple studies show that a diverse background of people support the rationing principle of quality of life (Tong 800). Their argument resembles Kerstein's. When considering patients of similar prognosis, people support the quality of life principle because "[in] regard[s] to quality of life…people are generally utilitarian (give to best-off and maximize utility)" (Tong 800). Also, people with a better quality of life in terms of health are more beneficial to society, supporting the essence of utilitarianism.

Opponents critique the process as being inherently subjective (Persad 427); judging the quality of life becomes difficult when one patient isn't in a vegetative state. Participants agree, however, the principle of the quality of life has merit according to a set of ten independent studies (Tong 800). Similarly, many existing systems (QALYs, DALYs, etc.)

have already been using it as a principle in rationing decisions for an extended period of time (Persad 427-428).

Principle III : Sickest First

"Sickest first" prioritizes the sicker patient in rationing decisions. Alleviation of suffering and debilitating pain has special moral urgency according to this principal (Kerstein 5). PWE, however, differentiates between the alleviation of acute pain and allocating the scarce resource (Persad 424): PWE argues that treatment should optimize benefits(prognosis and quality of life), ; these benefits are often undermined by allocating by sickest first.

Philosopher Frances Kamm demonstrates how the sickest first principle can be applied with prognosis, writing "while absolute outcomes may be better in the less urgent, it is differential outcome (i.e., the difference between outcome with and outcome without an organ) that is relevant" (Kamm 204). Kamm's perspective considers both post-treatment life expectancy and the patient's current health condition. Basically, the patient with the most improvement from treatment is given priority. The reason why Kamm's application of sickest first is ethical is because consideration is given to both the moral urgency of alleviating suffering and to the importance of optimizing benefits of treatment.

Though public studies show that the sickest (the more urgent patient) should be treated first (Tong 802), a closer look reveals that these studies' questions assume resources will become available before the less urgent patient's projected death (Stahl 114). This is both misleading and invalid; in scarce times the resource is unlikely to become available for the less urgent patient. The assumption of the medical resource's future availability makes it easier for the participants to choose the sickest patient to be prioritized. Though sickest-first is a key principle in guiding rationing decisions, it should not be prioritized over the principle of prognosis.

Principle IV: Utilitarianism

Utilitarianism, in the context of this discussion, means saving patients who would benefit the society to a greater extent. Using this

philosophy, PWE argue that patients directly required for saving the most lives should be prioritized (Persad 426). For example, saving Patient A, through which ten other lives will be saved, is preferable to saving just Patient B, assuming patient A and B have otherwise equal considerations.

Critics argue that "human beings have equal worth and equal right to dignity" and that treatment according to utilitarianism undermines human dignity (Per-Erik 31). The argue patients should not be judged on social status, job, or ability. PWE, however, write: "prioritizing essential health-care staff does not treat them as counting for more than themselves, but rather prioritizes them to benefit others (Persad 426)." Saving more lives does not ignore human dignity, but rather values more than a single individual's human dignity.

Utilitarianism can immorally support the prioritization of wealthier patients who would contribute most to society in terms of pensions, taxes, etc (Tong 800). Studies show that a majority of participants do not value this type of utilitarian principles (800). A limited form of utilitarianism is preferred in rationing decisions when patients that are vital to saving lives are prioritized.

Principle V: Age-Modified Youngest First

Age can guide rationing decisions by prioritizing the youngest patients first. The youngest patients are supremely valuable, they have lived the least amount of time (Persad 425). Rationing according to youngest first gives equal dignity to all patients. Philosopher Frances Kamm points out that "if there are good moral arguments for an older person not having as strong a claim on a resource as a younger one… this is consistent with his being treated as an equal" (Kamm 241-242). Kamm's argument indicates that the older patient still is given equal dignity when compared to the younger patient even when the younger patient is given priority for scarce medical treatments. Equal dignity exists because the older patient has already lived more life years; consequently, the moral decision merits the youngest preference to treatment. Rationing by age is ethical because it prioritizes the resource to the worst-off and it treats patients with equal dignity.

Critics often oppose this principle, equating rationing by age with discriminatory acts such as racism and sexism. In contrast, rationing by age differes from rationing by race or gender because everyone sixty years old has been twenty years old at some point (Persad 425). Since a twenty-year-old patient has not had the opportunity to live until sixty, they deserve to receive priority in treatment. Everyone ages, but not everyone is a member of a particular race or gender.

The ethical principle of age, however, needs to be modified to consider the factor of societal investment. PWE argue that rationing by youngest first needs requires modification . A twenty-year-old who is invested in more by society and has established character should be given priority over an infant (Persad 425). Prioritizing the infant would mean ignoring the already well-established relationships of the twenty-year- old and their investment in society. Investment includes factors such as schooling, family investment, etc. PWE's develops a compromise between youngest first and investment through a curve (see Appendix for figure). In this curve, young adults are prioritized over infants, who are the lowest in priority. Investment generally increases from the time of birth and levels off at young adult hood. The inclusion of investment in youngest first results in an overall more ethically sound principle.

Principle VI : Lottery System

Rationing by lottery means patients who are waiting to receive the scarce medical resource are chosen randomly, thereby giving equal consideration to each patient. Each patient has equivalent human dignity (Persad 423). Instead of having a panel pick and choose, the lottery system takes away from possible corruption panel members may have by relationships with patients (423).

Lottery complements other ethical principles. Prognosis can be factored into lottery by giving the patient with the better prognosis better odds. Small differences in prognosis and age can be prevented from complicating the decision(423). For example, if Patient A has only a marginal post-treatment chance of survival over Patient B, then Patient A's chance for treatment would be only marginally higher. Lottery

eliminates any complications over minutiae, providing an unbiased engine for prioritization.

Lottery "potentially [ensures] that no individual-irrespective of age or prognosis-is seen as beyond saving" (428). This means that even though a certain ninety-year-old has a substantially worse prognosis than a twenty-year-old, the ninety-year old will still be given a chance for treatment. By giving the patient with the slim-chance of survival a possible claim to the limited resource, their life is respected. When prognosis compliments decision by lottery, it can respect everyone's chance of survival resulting in a more ethical rationing decision (Kerstein 3).

Unethical Principle: First-come first-served

Systems that acknowledge prognosis still cannot be fully ethical if they also consider unethical principles. For example, the UNOS points system provides treatment on a first-come first-served basis. Treatment on a first-come, first-served basis is unethical because it increases competition among patients to acquire the resources. The principle thus "favors people who are well-off, who become informed,… travel more quickly, and can queue for interventions without competing for employment or child-concerns" (Persad 424). New York State's pandemic influenza planners have said that the patients who can figuratively and sometimes literally push to the front of a line have the best chance of survival under this principle (424). Since the first-come first-served principle acknowledges unethical factors such as the patient's influence it does not provide ethical guidance to rationing decisions.

The case of Steve Jobs' liver transplant in 2009 represents a similar circumstance (Hainer). Jobs went on waiting lists in multiple hospitals through purchasing properties. Furthermore, he flew on a private jet when patients were being called out for treatments allowing him to access more hospitals than someone who was less financially capable Patients' financial resources do not provide ethical guidance to rationing decisions (Persad 424). Time has shown again and again that Treatment on a first-come first-served basis allows ethically irrelevant

factors to influence rationing decisions' outcome.

Conclusion

There were approximately 100,000 patients waiting for kidney transplants in the year of 2010 (Axelrod 987), rising roughly 4,000 patients every subsequent year (Gatson 775). Appropriate medical resources's scarcity makes ethical allocation an imperative. Society must overcome the difficulties surrounding the discussion of rationing. Current rationing systems such as the UNOS allocate scarce resources on the basis of unethical principles, such as first-come first-served. Principles must be established in an ethical, just manner. Six key principles, prognosis, quality of life, sickest first, utilitarianism, age, and decision by lottery function to optimize the benefits of treatment, prioritize younger patients, and treat patients fairly regardless of their wealth or influence.

Appendix

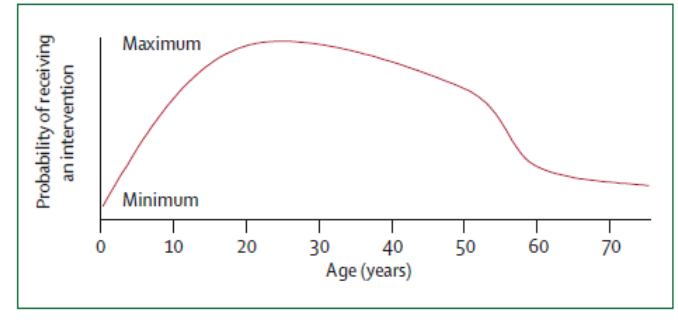

Figure: **Age-based priority for receiving scarce medical interventions under the complete lives system**

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