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Should Health Care Providers Get Treatment Priority in an Influenza Pandemic?

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The 2009 pandemic of influenza A (H1N1) was relatively mild, but a subsequent outbreak of pandemic influenza could be much worse. According to projections from the Department of Health and Human Services, the potential health consequences of a severe (1918-like) influenza pandemic in the United States could be literally overwhelming: up to 1.9 million deaths; 90 million people sick; 45 million people needing outpatient care; 9.9 million people hospitalized, of whom 1.485 million would need treatment in an intensive care unit (ICU); and 742,500 patients needing mechanical ventilators.¹ Even a less cataclysmic, “moderate” pandemic (like 1958 or 1968) would result in 209,000 deaths; 90 million people sick; 45 million people needing outpatient care; 865,000 people hospitalized, of whom 128,750 would need treatment in an ICU; and 64,875 patients needing mechanical ventilators.²

The United States health care system would be unable to meet these needs because it simply does not have the resources (e.g., health providers, facilities, supplies) to provide care for all of these very sick people.³ For example, there are only 951,045 hospital beds,⁴ including 71,524 ICU beds,⁵ and 105,000 mechanical ventilators in the United States,⁶ and a very high percentage of beds and ventilators are already in use.⁷ In the event of a severe event of pandemic influenza there would need to be rationing or allocation of limited health care resources. On what basis should these life and death decisions be made?

There are numerous possible allocation schemes, such as a lottery, “first-come-first-served,” or giving priority to one or more of the following groups: health care providers; all health care workers; police, firefighters, and first responders; providers of essential services; young people; healthy and productive adults; or those most likely to benefit from medical treatment. These are agonizing decisions to contemplate, and their implementation by overburdened public health officials and front-line health care providers during a period of significant morbidity and mortality will be extremely difficult. It is essential to establish an allocation framework in advance of a pandemic, and the criteria used must be ethically compelling, widely understood, supported by the public, and easily implemented.

This article considers one aspect of the allocation of scarce health care resources: whether health care providers should receive treatment priority in an influenza pandemic. In addressing this narrow issue, the article uses distributive justice principles and practical considerations to conclude that health care providers should *not* get priority and that medical utility should be the sole criterion in determining treatment priority.

Ethical Framework

Sound ethical analysis depends on accurate information, but many facts about an influenza pandemic cannot be known with certainty beforehand. For example, the severity of a future

pandemic cannot be known. What may be appropriate public health ethics in the face of a doomsday scenario may not be appropriate with a milder outbreak. Similarly, epidemiological information regarding high-risk populations, transmissibility, course of disease, and effectiveness of various treatment regimens and public health responses (e.g., social distancing measures such as “snow days” and quarantine) cannot be determined in advance.

With these fact-based caveats, it is clear that distributive justice is the central ethical principle in allocating scarce health care resources. Distributive justice “refers to fair, equitable, and appropriate distribution in society determined by justified norms that structure the terms of social cooperation.”⁸ Although experts agree that distributive justice governs allocation under conditions of scarcity, there is disagreement about whether the framework for distributive justice should be based on utilitarian (emphasizing maximizing public utility), libertarian (emphasizing rights to economic and social liberty by application of procedural fairness), egalitarian (emphasizing equal access to the goods every rational person values), or communitarian (emphasizing principles and practices that have evolved in a community) conceptions of justice.⁹ Tom L. Beauchamp and James F. Childress identify six main policy options for distributive justice: (1) to each person an equal share; (2) to each person according to need; (3) to each person according to effort; (4) to each person according to contribution; (5) to each person according to merit; and (6) to each person according to free-market exchanges.¹⁰ What principle or combination of these or other principles should be applied in developing allocation strategies in a pandemic?

By definition, scarcity of health resources means that some individuals who would benefit from access to the resources will be unable to obtain timely access to all of the health care they need. A just allocation system for a pandemic should be based on ethically compelling reasons for distinguishing between individuals who get priority access to health care resources and those who do not. At the same time, it should be observed that under “normal” conditions individuals vary widely in their health status, access to health care, and socio-economic position. These preexisting disparities create even greater strains on allocation criteria. “The potential for a pandemic to exacerbate existing social and economic inequalities underscores the importance of considering a pandemic not only as a public health issue, but also as an urgent matter of social justice.”¹¹

Traditional accounts of medical ethics specifically reject the use of general social factors (e.g., wealth, occupation) in allocating access to health care. Commenting on allocation of scarce health care resources in general, the American Medical Association (AMA) Code of Ethics provides: “Non-medical criteria, such as ability to pay, age, social worth, perceived obstacles to treatment, patient contribution to illness, or past use of resources should not be considered.”¹² In other words, social worth, moral worth, or comparable considerations fail to satisfy the demands of distributive justice.¹³ “[T]he concept of moral worth is secondary to those of right and justice, and it plays no role in the substantive definition of distributive shares.”¹⁴ Thus, neither past contributions to society nor predictions of long-term future contributions to society after the pandemic provide an adequate basis for giving health care providers priority for treatment.

John Arras presents the counterargument that an influenza pandemic is a special case, and that the scale of a pandemic “would justify the temporary abandonment of our traditional principle of equal moral worth and the concomitant embrace of social value criteria for health care rationing.”¹⁵ As noted previously, pandemics differ in their severity. It might be the case that “special social worth,” as discussed in the next section, might justify treatment priority for a limited number of health care providers in an extraordinary situation. Yet, such a priority is not justifiable as a general principle of pandemic planning.

Arguments for Giving Priority to Health Care Providers

Initially, it might seem reasonable for health care providers to get priority in access to health care in a pandemic. After all, they justifiably receive priority for influenza vaccine based on their increased risk due to clinical exposures and their potential role as vectors of disease. In the context of treatment, however, the issue is more complex. To begin with, the category of “health care providers” includes a heterogeneous mix of physicians, nurses, dentists, pharmacists, physical therapists, social workers, psychologists, chiropractors, respiratory therapists, laboratory and imaging technicians, and various other professionals. In addition to clinicians, they include trainees, administrators, educators, researchers, and retirees. Even within a narrow sub-category, such as practicing physicians, there are individuals whose practices are directly related or totally unrelated to the pandemic. Should all or only some of these individuals get priority, and on what basis? Is there a convincing ethical basis for moving some or all health care providers to the front of the line — and ahead of other desperately ill people?

The following three considerations almost certainly would be used to support giving health care providers treatment priority in a pandemic: (1) specific social worth (service during the pandemic); (2) general social worth (future social contributions); and (3) desert (past social contributions). As discussed below, these considerations fail to provide an ethically compelling rationale for treatment priority. Moreover, using social worth and desert would also likely impede the ability of public health officials to control the pandemic and would undermine the social fabric of a society under great stress.

There has been little detailed discussion of the general proposition that social worth should be used in establishing priority for treatment in a pandemic and, more specifically, that health care providers should receive priority. The use of social criteria, however, has been discussed in allocating scarce vaccine supplies. In 2005, the Centers for Disease Control and Prevention’s Public Engagement Pilot Project on Pandemic Influenza, after conducting focus groups with the public, concluded that the two key goals of a vaccination strategy are to reduce individual deaths and hospitalizations due to influenza and to ensure the functioning of society. The group recommended that top priority for vaccine go to individuals engaged in the production of vaccines, emergency service providers, and others who provide critical services, including public safety personnel, government leaders, homeland security personnel, and those involved in utilities, food distribution, and communications.¹⁶ Although limited to vaccine allocation, this report expressly supports the use of social worth in order to “ensure the functioning of society.”

Similar considerations dominate the rationales for giving treatment priority to health care providers. The following three arguments present the best case for giving treatment priority to health care providers.

First, it could be argued that giving priority to treating physicians and other health care providers will ensure that they are well enough to treat others during the pandemic. There are too many unknowns to evaluate the factual assumptions underlying this argument. It would depend on the natural course of the infection, the effectiveness of antiviral medications and other therapies, the timing when treatment was initiated, and other factors. Regrettably, prompt recovery from some strains of influenza is by no means assured.¹⁷ It is also not known how long a pandemic will last, and thus it cannot be determined whether pandemic conditions will still exist by the time any particular person has recovered. The “special case” exception also would depend on the uniqueness of the skills of the individual providers. Because using social rather than medical criteria in triage runs counter to traditional principles of medical ethics, strains social solidarity and raises substantial

concerns about distributive justice (further discussed below), the burden of proof ought to rest with those who would assert that extraordinary circumstances justify special treatment for health care providers. In the absence of compelling evidence, there is no ethical justification for an *a priori* strategy of giving treatment priority to health care providers.

Second, it could be argued that establishing broad treatment priority for health care providers will benefit the public by encouraging health care providers to serve during a pandemic.¹⁸ This argument assumes that without being promised priority for medical care, some health care providers would refuse to report for duty during a pandemic. It is difficult to predict how many health care providers would refuse to work during an influenza pandemic, but, undoubtedly, some would refuse.¹⁹ The reasons for refusal probably would include concerns about their own health, transmitting infection to their family members, and the need to deal with other responsibilities. Surveys of what health care providers *claim* they would do in a pandemic and their assertions of the likely effects of giving them priority for treatment²⁰ may or may not accurately predict their conduct in an actual emergency. On the one hand, there is a noble tradition of health care providers placing their own health in jeopardy to care for others.²¹ On the other hand, it is not clear that a promise of treatment priority would affect the behavior of modern health care providers.²² It may well be that health care providers inclined to provide care are unlikely to need inducements, whereas health care providers not so inclined are unlikely to be swayed by the promise of priority in treatment. Even assuming that the promise of treatment priority would be effective, an argument could be made that basing health care allocation on an arguably unprofessional inducement to health care providers is bad public policy.

When it revised its Code of Ethics in 1977, the AMA deleted the explicit ethical obligation of physicians to treat patients during epidemics “at the jeopardy of their own lives” that had been in effect since the AMA’s initial Code of Ethics in 1847.²³ In 2004, the AMA adopted Policy E-9.067, Physician Obligation in Disaster Preparedness and Response.

National, regional and local responses to epidemics, terrorist attacks, and other disasters require extensive involvement of physicians. Because of their commitment to care for the sick and injured, individual physicians have an obligation to provide urgent medical care during disasters. This ethical obligation holds even in the face of greater than usual risks to their own safety, health, or life. The physician workforce, however, is not an unlimited resource; therefore, when participating in disaster response, physicians should balance immediate benefits to individual patients with ability to care for patients in the future.²⁴

Unfortunately, the obligations outlined in the first three sentences of the policy statement are undermined by the final sentence, which seems to suggest that physicians ought to limit their own risks for the sake of future patients.

Notwithstanding the ambiguity surrounding the 2004 AMA Policy Statement, the environment in which physicians practice medicine today certainly differs from the environment of the mid-nineteenth century. The practice of medicine in the United States has become increasingly decentralized, specialized, and devoid of long-term physician-patient relationships.²⁵ One consequence is that physicians may be less willing to risk their own lives to care for patients with whom they have little connection. In recent epidemics, in other countries as well as in the United States, from SARS²⁶ to monkey pox,²⁷ substantial numbers of health care providers have refused to report for duty. Although a variety of “carrots and sticks” have been used,²⁸ the offer of treatment priority has not yet been used as an inducement for health care providers to serve during an epidemic or pandemic.

Third, it could be argued that health care providers deserve treatment priority based on their service during the pandemic (specific social worth) or past and likely future societal contributions (desert, general social worth). Because the category of “health care providers” is so diverse, it is not clear that all members of the category would qualify for priority on the basis of either desert or likely future contributions. With a narrow definition of eligible health care providers, such as those who become ill in providing health care to others, giving them treatment priority is morally attractive. Nevertheless, there is still a substantial danger that the principle of reciprocity for service during a pandemic would be expanded to a more general rule of desert. As John Rawls has observed, past public service is appealing on an emotional level, but “rewarding desert is impracticable.”²⁹

Logically, past public service could encompass a broad range of activities, including those unrelated to providing health care. Under a theory of desert, a war hero should get treatment priority, but how would this be defined or limited? What other heroes and humanitarians would qualify? If past public service is a factor, should past antisocial behavior serve to move an individual to the bottom of the list for treatment? And, if more general negative criteria were used, such as burden on society, then welfare recipients, homeless people, and the poor, weak, and powerless would surely be moved to the bottom of the list as well. Before long, treatment priority would be based on which patients were deemed by some decision maker to be the most deserving of care — an invitation to arbitrariness and bias.

Besides the philosophical concerns about using social worth, there are insurmountable practical issues. If public service (however defined) were used as a criterion, what documentation process would be required to establish one’s social worth, what decision making and appeals process would be needed, and who would be qualified to make these Solomon-like determinations? Moreover, if numerous individuals qualify for treatment priority based on social worth, how would those individuals be ranked to determine their priority relative to other “deserving” individuals?

Prioritization inevitably means drawing lines. Assume that first priority for treatment is given to doctors and nurses under the theory that they are essential to a viable health care system in the pandemic. What about the pharmacists, medical technicians, clerks, and administrators who enable a health care facility to work? What about ambulance drivers and dispatchers? What about the workers who maintain the heat, light, power, water, and supplies, and the maintenance and housekeeping staff who prevent the spread of infection within hospitals? Should anyone involved in health care delivery get priority regardless of direct patient contact? Treatment priority for health care providers would quickly devolve into priority for a large class of health care workers, with determinations of eligibility made by other health care workers.

Establishing a priority for health care workers would not likely be the end of using social worth. Even in a pandemic, only a fraction of society will need to be hospitalized, but everyone will need to eat. Should food service and food delivery workers get priority in treatment? What about law enforcement officers and firefighters, who are essential to maintaining public safety and order? Morticians are needed to dispose of dead bodies properly. Sanitation workers are essential to prevent other disease outbreaks. Public officials are important in deciding public health policies and directing governmental efforts to fight the pandemic. The list is seemingly endless. The conclusion is simply that in a complex, interdependent society it is virtually impossible to draw lines about who is needed to keep society afloat. Each critical segment of society needs to cross-train staff and have an emergency plan to replace key personnel,³⁰ but a predetermined or ad hoc ordering of specific or general social worth is infeasible and undesirable as a basis for allocating treatment in a pandemic.

Medical Utility

Using medical criteria to determine what patients are likely to benefit the most from medical treatment is consistent with traditional medical triage protocols (e.g., in mass disasters).³¹ In a typical triage situation, such as on the battlefield or in a natural disaster, victims are often sorted into categories of medical need in the following priority: (1) those who have major injuries and will die without immediate help, but who can be salvaged; (2) those whose treatment might be delayed without immediate danger; (3) those with minor injuries; and (4) those for whom no treatment will be efficacious.³² Such prioritization based on medical utility is essential to the stewardship and most efficient use of scarce health care resources.³³

In extraordinary cases, it might be ethically justifiable to use non-medical factors in allocations, such as where a limited number of people have the unique ability to help others. An example would be giving treatment priority to a health care provider with unique and essential skills, such as expertise in infectious diseases or pulmonology. Even then, it is not clear if or when the individual will recover sufficiently to resume providing care. Of course, notwithstanding any established allocation criteria, some ill colleagues and loved ones of health care providers are likely to receive favoritism in at least some aspects of treatment priority. From an ethical standpoint, however, there is a difference between facilitating the prompt evaluation of a colleague or loved one and providing a scarce resource, such as an ICU bed or ventilator. Formal rules for allocation based solely on medical utility ought to be followed.

The American public and policy makers have a long history of embracing medical utility and rejecting social criteria in allocating scarce resources. For example, in the early 1960s, the Seattle Artificial Kidney Center established a committee to decide which individuals would get access to dialysis. The committee based its decisions on social criteria, and in so doing selected people reflecting the committee's view of middle class virtues. The public outcry led to the enactment of federal legislation granting access to dialysis to all individuals with a medical need.³⁴

Similar rejection of social criteria and support for medical utility is evidenced in national policy on the allocation of solid organ transplantation.³⁵ In deciding on which individuals get priority, there is broad support for rejecting the use of social worth. To illustrate, society owes a duty to first responders, police officers, firefighters, and similar personnel serving the public to provide them with medical care in accordance with accepted ethical principles. Nevertheless, the same individuals who are owed treatment (and compensation) because they risk their health and safety for the public are not given priority for organ transplantation, even where their need for a transplant arises out of their official duties. The public policy of equitable distribution of scarce organs takes precedence over the public policy of providing care to those individuals who risk their health and lives for the public good.

Finally, it bears mentioning that "medical utility" is perhaps a deceptively simple term for the complex algorithms and judgments clinicians will need to apply in determining treatment priority. There is a substantial and growing literature about how to define medical utility, the clinical criteria to determine priority, and the process to use in adopting and implementing the criteria. Under any definition, medical utility rejects desert, general social worth, political and social "connections," and similar factors in allocating scarce medical resources.

Other Approaches

Other approaches have been proposed that use combinations of social worth and medical utility, or that use entirely different criteria. Three such approaches are presented. One approach would give priority to younger people under the “fair innings” theory. This theory asserts there is some span of years considered a reasonable life and that societal obligations owed to those who have had this life span are less than to those who have not.³⁶ Even though some other countries explicitly or implicitly use the fair innings approach,³⁷ the United States has consistently rejected the “rationing” of health care on the basis of age.³⁸

Another approach, the “complete lives system,” has been proposed by Govind Persad, Alan Wertheimer, and Ezekiel J. Emanuel. Based on the principles of youngest-first, prognosis, save the most lives, lottery, and instrumental value, it gives priority to people between the ages of 15 and 40.³⁹ These are people “who have not yet lived a complete life and will be unlikely to do so without aid.”⁴⁰

Douglas B. White et al. have proposed using a similar multi-principle strategy to allocate ventilators in a public health emergency.⁴¹ The ethical principles, each of which is translated into clinical criteria, are to save the most lives (based on short-term survival), save the most life-years (based on long-term survival), and the life-cycle principle (preferring patients in the younger stages of life).

The above three approaches implicitly reject the notion of giving priority to health care providers because they rely on other factors, notably age (to varying degrees), in making allocation decisions. Undoubtedly, age could play a role in determining which individuals are most likely to benefit from care, either by calculating quality-adjusted life years⁴² or by other means. In theory, this would be an acceptable use of age-related medical criteria, but using age independent of medical utility would be perceived by the public as arbitrary and unjust. The latter two proposals rely on clinical algorithms of varied complexity, thereby raising the issue of the relative ease with which allocation decisions can be made in stressful clinical settings.

Practical Considerations

Application of medical utility means using scarce medical resources to treat those who have the best chance of recovery with a reasonable quality of life. The harsh reality is that some patients who are most severely affected (perhaps because of a delay in seeking treatment, advanced age, co-morbidities, or other medical factors) would be given only palliative care instead of an ICU bed and an intensive regimen of antiviral medications, mechanical ventilation, and other measures. These purely medical considerations in allocation of medical resources already have been expressed in technical guidelines, such as the Sequential Organ Failure Assessment Score⁴³ and medical criteria for allocation of mechanical ventilators.⁴⁴ The proposals by White et al. and Persad, Wertheimer, and Emanuel seek to build on these technical guidelines.

In some instances, two or more individuals might be equal in terms of medical utility criteria. Chance (such as selection by lottery or other random means) and queuing (“first come, first served”) are the main options available at this point. Beauchamp and Childress make a compelling case that queuing “appears to be more feasible in many health care settings, including emergency medicine, ICUs, and organ transplant lists.”⁴⁵ Because a delay in entering the queue might be caused by a lack of information, transportation, or similar obstacles, it is important to provide equal access to joining the queue.

Also, it ought to be recognized explicitly that rejecting social worth as a basis for triage and using only medical utility may still adversely affect certain individuals based on factors beyond their immediate medical condition. For example, the prognosis for recovery from influenza for cigarette smokers may be significantly worse than for non-smokers.⁴⁶ In the United States, using smoking status as a key element of triage in an influenza pandemic, although possibly justifiable on medical grounds, would adversely affect individuals of lower socio-economic position who are more likely to smoke.⁴⁷ Other medical criteria, such as co-morbidities, could adversely affect individuals with disabilities or chronic illnesses as well as individuals without regular access to health care.⁴⁸ It is also possible that social factors with unequal distribution along racial or ethnic lines could mean that certain vulnerable populations will bear an adverse burden of the pandemic disease.⁴⁹

Even recognizing the potential adverse effects on certain individuals or groups of using medical utility, it remains the most objective basis for triage, it is the plan least susceptible to the charge of unfairness, and it is the easiest system to apply by those charged with doing so — health care providers.

Social Solidarity

The public health response to a pandemic would involve many other components besides the allocation of scarce health care resources. Maintaining civil society in a pandemic will be extremely challenging.⁵⁰ Although procedural fairness⁵¹ and public participation in disaster planning are important, the most important factor in the acceptability of any allocation plan is the perceived fairness of the system. It would be ethically and politically unacceptable to adopt a system of allocating potentially lifesaving health care in which, without a compelling justification, those in positions of authority who establish the priority system (including health care providers) put themselves at the top of the list for treatment. To return to the organ transplantation case, in the 1990s the mere suspicion that a former baseball star and a sitting governor were placed at the top of the list for liver and heart-liver transplantation led to considerable public outcry.⁵² An allocation scheme with perceived widespread favoritism in access to treatment in a pandemic would likely cause even greater public outrage.

Triage policy should be considered in the context of the overall public health response to a pandemic, including various types of prevention and treatment measures. A suite of disparate public health measures, including quarantine, might be needed to combat the spread of influenza.⁵³ The success of quarantine and other social distancing measures (e.g., canceling public gatherings such as sporting events) will depend, at least to some degree, on the willingness of large numbers of possibly infected but currently asymptomatic individuals to forego social and economic contacts or have their liberty restrained in the interest of the community. Because American society places a high value on individualism and libertarianism, public health officials will be challenged to convince the population to act in the interest of public health. Therefore, a triage system that bases treatment priority on an individual's assumed social worth could undermine the ability of public health officials to obtain the social solidarity needed to control the pandemic.⁵⁴

Conclusion

Health care allocation decides not only who gets access to treatment, but perhaps more importantly, it decides who does *not* get access to treatment. In a major pandemic, the health care system will be under incredible strain, as it faces impossible demands with too little staff and too few resources. Distributive justice and practical considerations support the conclusion that health care providers should *not* be given priority in treatment in a pandemic

and that medical utility should be the sole criterion in allocating health care. An allocation policy based on medical utility is easier to defend on ethical grounds, easier to explain to the public, and easier to implement by front-line health care personnel.

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