Caring for the Unvaccinated

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Manuscript word count: 2061

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Daniel Wilkinson, a 46-year-old veteran who survived two deployments to Afghanistan, died a preventable death during Texas’s summer delta wave (1). But unlike thousands of his fellow Texans, Wilkinson was fully vaccinated and did not die of COVID-19 pneumonia. Instead, "a gallstone took him out" as he went into pancreatitis-induced multi-system organ failure waiting for an accepting facility that could treat him.

Mr. Wilkinson and countless others forced to defer medical care were victims of the delta wave. When the pandemic shifts hospitals from conventional to contingency standards of care (2, 3), they must delay medically necessary and time-sensitive procedures for vaccinated adults with serious illnesses (4). These delays are directly harmful; these vaccinated patients are directly harmed when hospitals use all their resources to care for the many unvaccinated patients with COVID-19. For example, delaying breast cancer surgery by just four weeks increases the relative risk of death from the disease by 8% (5). Should vaccinated patients pay the price for the refusal of the unvaccinated to accept a freely available life-saving therapy?

Simply rejecting the use of vaccination in prioritization for medical resources without analysis ignores the very real tradeoffs at play during a pandemic. The pain and suffering in the vaccinated from deferred medical care require a deeper defense of caring for the unvaccinated. I argue that in surge conditions, a contingency care standard that prioritizes emergency life-support, regardless of vaccination status, saves the most lives. The principle of reciprocity supports a possible tie-breaker role for vaccination status when two patients have equivalent survival benefit from a scarce healthcare resource. However, a universal exclusion of the unvaccinated from life-support during a pandemic surge fails the test of proportionality for reciprocity. Finally, healthcare systems have an ethical obligation to expand capacity to meet
the demands of a pandemic surge, even when the vast majority of the patients are unvaccinated.

**Saving the Most Lives Means Prioritizing Care for the Unvaccinated**

A leaked memo from the North Texas Mass Critical Care Task Force laid out an apparent life-saving rationale for prioritizing the vaccinated. The task force argued that because "COVID-19 vaccination decreases severe infection and death...vaccine status therefore may be considered when making triage decisions as part of the physician's assessment of each individual's likelihood of survival." (6) Patients who undergo mechanical ventilation for elective procedures have a dramatically higher survival rate than patients with COVID ARDS. Shouldn't we prioritize the former?

However, this approach fails to consider the risk of death without treatment. Without immediate and ongoing intensive care treatment, patients with acute respiratory failure have mortality near 100%. On the other hand, a stable outpatient has a higher short-term probability of death with major cardiac or abdominal surgery compared to waiting. Even if the analysis extends to total quality-adjusted life years, surgical procedures have a substantially lower survival benefit than mechanical ventilation for severe COVID. For example, in the landmark STITCHES trial, a coronary artery bypass decreased mortality in patients with ischemic cardiomyopathy from 66.1% to 58.9%, an impressive number needed to treat of just 14 patients (7). But mechanical ventilation for COVID pneumonia confers dramatically more survival benefit than a CABG, improving survival from 0% to 50% with a number needed to treat
of just two. Likewise, while the 8% increased relative risk of death from deferring breast cancer surgery for a month is awful, the absolute increase in risk is only 1 per 100, and perhaps only 1 per 200 for a two-week deferral. After the surge is over, the hospital can catch up on deferred elective surgeries. The harm from a CABG or cancer surgery delayed two weeks is real, but tiny in comparison to certain death from denying life-support for respiratory failure.

So, in general, the ethical principle of maximizing objective benefits of treatment will favor prioritizing emergency respiratory failure care for the unvaccinated over other therapies (8). However, this is not invariably true. When an entire region is completely overwhelmed by a pandemic surge and life-support becomes scarce even for emergency conditions, standards shift from Contingency to Crisis Standards of Care (9, 10). Crisis standards of care are allocation guidelines for the triage of absolutely scarce healthcare resources, which can only be activated when all hospitals within several hours are completely full of patients with acute conditions on life-support. In this scenario, physicians could use the diagnosis of COVID ARDS as prognostic information, which is permitted in standard triage ethics (11). For example, a vaccinated patient with respiratory failure from RSV-induced status asthmaticus has a much higher probability of survival than an unvaccinated patient with COVID pneumonia (12, 13). However, while vaccination is incredibly protective against respiratory failure from COVID-19, it is unclear that vaccination effects the prognosis of patients with COVID-19 pneumonia that has progressed to the point of requiring mechanical ventilation. In fact, severe breakthrough COVID-19 in an immunocompromised person may have a worse prognosis than severe COVID-19 in an unvaccinated patient with a normal immune system.
Denying Unvaccinated Persons Access to Life-Support during a Surge Fails the Test of Proportionality

An alternative rationale for deprioritizing the unvaccinated is the principle of reciprocity. Vaccinated people are contributing directly to society by literally protecting their community from a deadly disease. Therefore, taking the time to get vaccinated should buy you “payback” in the form of priority access to healthcare. In contrast, by acquiring and spreading COVID, the unvaccinated are directly harming others. For proponents of deprioritizing the unvaccinated, this negative spillover effect to others is what distinguishes vaccination from other behaviors associated with disease. They claim the unvaccinated, by disregarding the safety of others, have literally “forfeited” their claim to equal medical treatment and must face the consequences (14).

However, these arguments fail the test of proportionality for reciprocal obligation. In the US the first 270 million vaccine doses saved an estimated 279,000 lives (15). Proportional reciprocity (“payback”) for vaccination would be about 0.001 lives worth of medical care, orders of magnitude lower than what would be required to justify denying life-saving treatment to the unvaccinated so the vaccinated can get elective procedures. To adopt the position of total exclusion from healthcare resources during a surge, one must assert unvaccinated have broken the social contract so irrevocably that their lives have almost no value in comparison to the lives of the good vaccinated citizens. In other words, the magnitude of the harm done by the unvaccinated does not justify prioritizing non-emergent care over life-saving care.
Vaccine mandates for the workplace, in contrast, pass the test of proportionality. An unvaccinated person can at any point take on the minor inconvenience of vaccination to regain their job. An unvaccinated person near death from respiratory failure no longer has that option. Even if announcing a policy barring unvaccinated persons from medical care leads to increased vaccination, the benefits would be seen far too late to help deal with a current surge.

Also, if we are in the business of quantifying contributions to society, people are far more than their vaccination status. Who is more socially useful, the 35-year-old father of three in reversible respiratory failure or the 70-year-old with pancreatic cancer who is waiting for a Whipple? Arguably society would be much worse off with the loss of the former. Prioritizing people with greater social worth could be used to construct trickle-down justifications for special treatment of athletes, politicians, CEOs—or the friends and family of those getting to judge social worth.

Proponents of discrimination by vaccination status are quick to carve out exceptions for cases they find sympathetic. The North Texas memo lays out a short list of “accommodations” for when the decision to get vaccinated is “beyond the patient’s control.” But what if the unvaccinated person hesitated to get the vaccine because of years of racist treatment in the healthcare system? How about if they were exposed to a media environment dominated by misinformation? What if their pastor offers them a religious exemption and forbids church members from receiving the vaccine? Adjudicating this list of possible exceptions at the beside will be subjective, arbitrary, and biased.

Finally, while refusing vaccination may violate the informal social contract, it is certainly not illegal. Indeed, proponents of deprioritizing the unvaccinated suspect that legal challenges
would prevent their ideas from being implemented explicitly as hospital policy, but
nevertheless call on physicians to step in and covertly “put a finger on the scale in favor of the
vaccinated” (14). It would be blatantly unethical for physicians to operate a secret healthcare
allocation system based on vaccination status without the expressed oversight of the state
government.

Health Systems Have an Ethical Obligation to Expand Capacity for Life-Support during a
Pandemic Surge, Even When the Vast Majority of the Patients Are Unvaccinated

While it often goes unsaid in the debate on caring for the unvaccinated, it’s no secret that
hospitals lose money on COVID care and work to minimize it (16). The situation got so bad in LA
county during the winter surge that the public health department had to issue an order forcing
elite hospitals to stop doing elective procedures and accept transfers from overwhelmed
community hospitals (17). Patients from racialized minority groups are less likely to have
private insurance (18), and therefore are less likely to have access to the low benefit but
lucrative procedures hospitals prefer to prioritize over COVID-19 treatment. If tertiary care
centers turn inward and stop taking transfers of COVID-19 patients from overwhelmed
community hospitals, this will result in de facto triage in favor of lower benefit care and cause
systematic harm to both the vaccinated and unvaccinated in vulnerable communities (19, 20).
Hospitals must justify their non-profit status by accepting transfers and prioritizing life-saving
care during a pandemic surge.
A Possible Tiebreaker Role for Vaccine Status in Triage under Crisis Standards of Care

There is a limited role for vaccine reciprocity as a tiebreaker under overt Crisis Standards of Care when every hospital in a region is overwhelmed and critical resources have run out. While inappropriate to use as the sole principle, recognizing positive contributions to society in the form of increased priority for scarce resources is an established part of multi-principle allocation frameworks. In vaccine allocation, reciprocity pushed healthcare workers to the front of the line ahead of their high-risk patients (21). In kidney allocation, reciprocity rewards prior living donors with a priority bump equivalent to 4 years of waiting on dialysis (22). Therefore, if two patients have a similar prognosis, e.g., a younger vaccinated solid organ transplant recipient with a severe breakthrough case and an unvaccinated patient with exactly the same predicted survival, prioritizing the vaccinated patient is ethically defensible. This triage rule recognizes vaccination as a narrow contribution and grants a limited and specific reciprocal priority (tie-breaker for respiratory life-support). However, this scenario is an exceedingly narrow case. Any policy of discrimination against the unvaccinated would have to be written down transparently and communicated broadly, ideally coming from state and local public health departments instead of individual hospitals. Financial incentives must be explicitly identified and disentangled from the process.
Conclusion

The case of Mr. Wilkinson, the veteran who died of gallstone pancreatitis, was truly tragic. Withholding or withdrawing life-support from an unvaccinated person with COVID-19 pneumonia and a similar or worse prognosis to accommodate Mr. Wilkinson could have been acceptable, but only if Texas had declared crisis standards of care and had an explicit, transparent allocation protocol in place. Without this formal structure, ad-hoc bedside rationing would have been unethical.

Ultimately, the much-maligned North Texas memo got it right by emphasizing the principle of saving lives in scarce healthcare resource allocation. The overlooked third point states, "many are understandably angry and frustrated with the unvaccinated, but triage must remain grounded upon likelihood of survival." Deferring lower benefit procedures to prioritize high benefit COVID-19 care will harm some patients with serious medical conditions who did their part and got vaccinated. But during a surge when resources are limited, uniformly denying care to the unvaccinated would lead to many more preventable deaths. There is a defensible role for vaccination status in triage as a limited tie-breaker, not as a categorical exclusion, but only in the context of a well-defined and transparent triage algorithm. Finally, despite the enormous financial pressure to do otherwise, elite academic centers are obligated to prioritize life-support for emergency conditions to save as many lives as possible during COVID-19 surges.
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