

# COVID-19 vaccination status should not be used in triage tie-breaking

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## ABSTRACT

This article discusses the triage response to the COVID-19 delta variant surge of 2021. One issue that distinguishes the delta wave from earlier surges is that by the time it became the predominant strain in the USA in July 2021, safe and effective vaccines against COVID-19 had been available for all US adults for several months. We consider whether healthcare professionals and triage committees would have been justified in prioritising patients with COVID-19 who are vaccinated above those who are unvaccinated in first-order or second-order triage. Given that lack of evidence for a correlation between short-term survival and vaccination, we argue that using vaccination status during first-order triage would be inconsistent with accepted triage standards. We then turn to notions of procedural fairness, equity and desert to argue that there is also a lack of justification for using vaccination status in second-order triage. In planning for future surges, we recommend that medical institutions base their triage decisions on principles meant to save the most lives, minimise inequity and protect the public's trust, which for the time being would not be served by the inclusion of vaccination status.

Healthcare professionals in the USA are practising in what seem to be the waning days of the COVID-19 delta variant surge of 2021. Along with looming concerns of the spread of the omicron variant, this moment provides an important opportunity for ethicists and healthcare professionals to reflect on how to adapt the medical response to the dynamic nature of the pandemic. One issue that distinguishes the delta wave from earlier surges is that by the time it became the predominant strain in the USA in July 2021,<sup>1</sup> safe and effective vaccines against COVID-19 had been available for all US adults for several months. Given the effectiveness of these vaccines in reducing the likelihood of infection, severe symptoms and hospitalisation,<sup>2,3</sup> many healthcare professionals may have found themselves wondering if they would be justified in prioritizing, between patients infected with COVID-19, those who are vaccinated above those who are unvaccinated when triaging scarce resources. The North Texas Mass Critical Care Guideline Task Force—a committee that recommends triage guidelines for hospitals in their region—considered this possibility in a leaked memo, spurring public discussion on the ethical permissibility of using vaccination status as a triage criterion.<sup>4</sup> The debates about the role of vaccine status in triage decisions raise valuable questions about how benefits and burdens can ethically be distributed in light of our new pandemic reality and provide insight into how to ethically

address potential future surges of COVID-19. We consider the feasibility of using vaccination status as a triage criterion for intensive care unit resources, its alignment with accepted triage standards, and its potential impact on equity and public trust—and conclude that it is inadvisable to use vaccination status given current evidence and procedural realities.

## FIRST-ORDER TRIAGING: SHORT-TERM SURVIVAL

First-order triaging occurs when patients are placed in a priority order for receiving healthcare treatment. Second-order triaging occurs where additional considerations are added to break ties or correct for factors missed during first-order calculations. While bioethicists disagree about what these policies should include, there appears to be some agreement that it is preferable that first-order triage decisions prioritize saving the greatest number of lives—that is, placing patients with a higher likelihood of short-term survival above patients with a lower likelihood.<sup>5</sup> Typically, as part of the triage process, triage committees assess patients' mortality risk using various standard measures, such as their Sequential Organ Failure Assessment (SOFA) score, to determine who has the highest likelihood of short-term survival.<sup>6</sup> Using the same utility-based principles, it would only be justifiable to use vaccination status for first-order triage decisions if it could be correlated with short-term survival to a similar degree as other measures of short-term survival. Since evidence of this correlation is currently lacking, it is not ethically justifiable for triage standards to include vaccination status during first-order assessments.

## SECOND-ORDER TRIAGING: BEYOND SHORT-TERM SURVIVAL

Second-order triage integrates additional factors into triage calculations to correct for other valid ethical factors not captured in short-term survival and to break first-order ties when the possibility of short-term survival appears equally likely between patients. What to include during this step continues to be debated, with experts updating their allocation guidelines as the pandemic continues. Scholars have suggested that second-order triage ought to balance the maximisation of outcomes with equity considerations.<sup>7</sup> For example, White and Lo initially argued that a patient's SOFA score plus their prognosis for longer-term survival should be part of first-order triaging, whereas the patient's age (with younger patients receiving priority) and status as a healthcare worker should be used as a tie-breaker



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in second-order triage.<sup>8</sup> Later, White and Lo revised this scheme to balance population health outcomes and equity during first-order triaging. Controversially, they added a patient's status as an 'essential worker' and their Area of Deprivation Index (ADI)—a ranking of their neighbourhood-based socioeconomic disadvantage to their first-order criteria.<sup>9 10</sup> And while White and Lo continue to use age as a second-order tie-breaker, they recommend random selection if a tie remains after other factors. What is important for our purposes is the recognition that second-order considerations may include factors not directly related to short-term survival. At first glance, giving priority to vaccinated patients during second-order triage may seem like a just or equitable response that compensates vaccinated patients for safeguarding their health, the health of others and accepting public health recommendations. In the remainder of this paper, however, we argue why it would be inadvisable to use vaccination status during second-order considerations.

### EQUITY AND DESERT

There are substantive normative reasons for not including vaccination status as part of second-order triage. White and Lo state that triage scores need a correction factor for patients who have experienced disadvantage due to structural inequities.<sup>9</sup> However, prioritising vaccinated patients may exacerbate existing inequities. For example, distrust among black and Hispanic communities toward healthcare institutions due to experiences of racism and discrimination may be partly to blame for initial low vaccination rates in these communities.<sup>11</sup> Unvaccinated individuals are also more likely to be uninsured, have lower incomes and lower education levels.<sup>12</sup> And some groups, such as homebound adults, may be unvaccinated because of their isolation and difficulty getting to appointments. Given that inequality may reduce the likelihood that a patient will become vaccinated, any triage policy that uses vaccination status as a tie-breaker risks compounding these disadvantages rather than promoting fairness.

Furthermore, it may be difficult to know the true reasons a patient is unvaccinated and to establish justifiable exemptions. People may be motivated for health reasons, such as a belief that natural immunity is preferable to immunity conferred by a vaccine.<sup>13</sup> Alternatively, they may be motivated by reasons of conscience, viewing the refusal of the vaccine as an important assertion of their political rights. Others still may have difficulty distinguishing accurate information from misinformation or fear negative social consequences from their community. It remains unclear which justifications are socially or ethically valid. Furthermore, if motivation is ethically relevant, triage committees should also assess the motivations of vaccinated people who may have chosen vaccination for purely self-interested reasons such as wanting to remove administrative impediments to working or engaging in social activities. In a triage situation—when time is short—uncovering anyone's motivations for their refusal (or acceptance), and assessing the justification would be practically impossible.

Nevertheless, some might argue that if a patient is not part of a disadvantaged community and knowingly refuses the vaccine, then surely *that* patient's reasons are illegitimate and they deserve to be deprioritised.<sup>4</sup> This reasoning is flawed as it replaces justified standards focused on benefit and equity with unjustified considerations. Triage based on what people 'deserve' (ie, 'desert-based considerations') based on their past choices has largely been rejected as a way to allocate healthcare resources because it is considered inhumane not to treat someone in need,

it can lead to negative outcomes for the patient and because many choices may be outside of individuals' control.<sup>14</sup> Some have proposed limited exceptions to this standard by including status as an essential worker in the name of 'reciprocity,' so as to acknowledge the exceptional risks and sacrifices which their work entails, and to optimise their return to the workforce. However, this use of reciprocity has been criticised for potentially undermining system trust and running contrary to the ethical foundations that guide triage policies.<sup>15</sup>

The general rejection of desert-based considerations is exemplified in the standard of care whereby patients are given equal consideration regardless of their perceived moral standing or responsibility for their health conditions. As such, good triage standards are grounded in whether a patient can benefit from the intervention—not whether they deserve it. Healthcare professionals are expected to give equal consideration to all patients, including those who are socially stigmatised, such as the unhoused; those who take risks with their health, such as those who recreationally use illegal substances; and those who do not take preventative measures to secure their health, such as those who refuse vaccines. Even people who cause harm or endanger others, such as those who drink and drive, are given consideration based on their need and potential to benefit. This standard applies both in times of convention and in times of crisis. In other words, healthcare institutions should avoid desert-based allocation because it undermines ethically justifiable standards that focus on benefit and equity.

### PROCEDURAL FAIRNESS

Procedural fairness must also be considered alongside the substantive values that compose triage decisions. Norman Daniels provides a lens to assess the procedural fairness of distributing scarce resources in his Accountability for Reasonableness framework. Accountability for Reasonableness requires that rationing mechanisms be feasible, transparent, publicly known and agreed upon, and have the ability to be challenged and revised.<sup>16</sup> To apply these principles to current triage policy, allocation policies must first be feasible. However, there are considerable practical barriers to using vaccination status in second-order triage. Triage committees have limited knowledge of any patient's previous behaviours. Since there are no readily available tests to confirm a patient's vaccination status—and available ones may not be reliable<sup>17</sup>—healthcare professionals could be mistaken about a patient's vaccination status. Also, patients could misplace their vaccination card; they may not have family able to provide the information if the patient lacks capacity; their family may be wrong; or the family or patient could be lying.

Fair processes also require transparency and public agreement on the fairness of triage mechanisms. Public trust and democratic processes are needed. Medicine enjoys its esteem to the extent that people trust the system. If it were public knowledge that institutions were allocating resources according to vaccination status, such policies might have serious negative consequences on the reputation of the individual institution and the entire field of medicine. This is evident in the public backlash that resulted from leaked proceedings of the North Texas Mass Critical Care Guideline Task Force.<sup>4</sup> Given that COVID-19 vaccinations have unfortunately become heavily politicised, the more that healthcare institutions engage in practices that are—or are perceived to be—secretive, biased, discriminatory or politically retributive, the more that marginalised groups, and the public in general, could become less empowered to make informed decisions and more suspicious of the entire enterprise. Transparency and public engagement are needed to maintain public trust and to

make public health messages, whether about COVID-19 or other pressing health matters, more effective.<sup>18</sup>

## CONCLUSION

As hospitals reflect on how they handled the delta surge and what they plan to do differently in potential future surges, it is vital that institutions base their triage decisions on principles meant to save the most lives, minimise inequity and protect the public's trust. Although these principles can be conceptualised and implemented in different ways, unless the evidence changes or compelling arguments in favour of modifying the accepted standards are presented, vaccination status and its correlated desert-based principles should not be used in first-order or second-order triage decision-making.

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