

## Distributive justice during the coronavirus disease 2019 pandemic in Australia

Distributive justice refers to the fair and appropriate distribution of benefits, risks and costs within a society. In a medical context, this requires patients with similar cases to be treated in a similar manner, and for there to be overarching equality of access to finite health resources. Distributive justice is a derivative of the broader principle of justice, which is one of the four biomedical ethics pillars described by Beauchamp and Childress as underpinning modern medical practice, along with beneficence, non-maleficence and autonomy.<sup>1</sup> The concept of distributive justice as it relates to the delivery of surgical care requires attention in the context of the coronavirus disease 2019 (COVID-19) pandemic. Significant measures have been taken by our governments, health ministries and public and private hospitals in an effort to prepare the Australian healthcare system for high volumes of patients with COVID-19. In the Australian context where a relatively low societal burden of disease has emerged, a question arises about the opportunity cost of these unprecedented interventions and restrictions, which have resulted in significant disruptions to the delivery of emergency and elective medical treatment – are we upholding the principle of distributive justice during the present pandemic?

The ethical issues surrounding the delivery of patient care during the COVID-19 crisis have evolved as the pandemic developed. As data from various countries have emerged, it has become increasingly evident that the utilization of finite medical resources (including intensive care unit (ICU) beds and ventilators) during the pandemic should not only be guided by a desire to save as many lives of those affected by the disease, but also by reference to the opportunity cost to the broader healthcare system that arises when such decisions are made. The discussion around this topic is difficult, controversial and it is obvious there is no single best answer. It is, however, the responsibility of clinicians, who are not only directly affected by the decisions of our leaders but who are also required to seek solutions to the problems facing them in relation to the fair delivery of patient care, to have difficult conversations in public fora.

The authors' concerns relate to the reports of exceedingly high mortality rates of patients with COVID-19 who require intubation and mechanical ventilation.<sup>2</sup> Mortality rates of 60–90% have been reported in areas of very high disease burden such as New York City. Other jurisdictions have reported equally poor outcomes, with the overall mortality of patients with COVID-19 and severe acute respiratory distress syndrome being on average 50% (ranging from 16% to 78%).<sup>3–7</sup> These mortality figures are at times almost twice as high as that of patients with acute respiratory failure secondary to other conditions<sup>8–10</sup> and also indicate that mortality is largely

independent of geographic location. There are no data to indicate that mortality rates would be different in Australian patients with severe COVID-19 requiring mechanical ventilation.

In these circumstances, the reduction of regular clinical services and the introduction of (potential) barriers to access to ICU beds and ventilators for non-COVID-19 patients should be questioned. Particularly, when other acute medical and surgical emergencies that require patients to be ventilated result in less days of ventilation and better outcomes.<sup>11–13</sup> Reserving these limited resources for a group of patients whose treatment may at times border on futility may conflict with the principle of distributive justice.

This issue was first identified by our colleagues on the frontline in Bergamo, Italy, who reported having to select patients with the best chance of recovery to allocate ICU beds and/or ventilators, whilst installing strict definitions for which patients would only receive best supportive care.<sup>14,15</sup> Whilst this decision-making process caused great concern in the broader public,<sup>16</sup> for anyone who has engaged in triage (training) for medical/surgical catastrophes, this simply reflects the adoption of a utilitarian approach, which provides that resources are in the first instance to be allocated to those who have the highest chance of survival.<sup>17</sup>

Accordingly, in the setting of the COVID-19 pandemic, and despite the best efforts and intentions of those involved in the decision-making processes, it is necessary to determine how many non-COVID patients requiring general medical, surgical and ICU management have not been able to access care, due to social distancing rules, reduction in services and closure of clinics or outpatient medical practices. Of particular note are those patients whose surgery mandates post-operative care in the intensive care environment, who by virtue of the COVID-19 pandemic restrictions endured delays in treatment as ICU beds were reserved. Examples include patients requiring urgent coronary artery bypass surgery or those with a 'window of opportunity' for cancer resection after neo-adjuvant therapy. Given that space and ventilators in ICU are a finite resource, it does not seem unreasonable to discuss the relative outcomes of patients requiring these resources in a time of scarcity, indeed we would argue that it is necessary.

Looking past the frontline of the pandemic, the more difficult impact to quantify will be that of the restrictions on elective surgery. Does the potential societal benefit of flattening the curve and conserving personal protective equipment by reducing elective surgery outweigh the cost of such an approach? It is possible these measures will result in a delay to diagnosis of malignancy for some patients, for example, by cessation of the BreastScreen program and endoscopy for all but the most 'urgent' indications. Only time

and further research will determine what the long-term impacts of this will be.

We would contend that the discussion around distributive justice and fair resource allocation needs to happen now, given the possibility of secondary peaks of infection in Australia with the foreshadowed loosening of restrictions both within the field of surgery, and in society in general. Furthermore, the lessons learned during this period will be applicable to future pandemics and disaster situations. Nearly 50 years ago in his seminal work,<sup>18</sup> Rawls proposed the notion of the 'veil of ignorance' where individuals in a society would craft political and economic policy with the greatest respect for distributive justice when they were unaware of underlying characteristics regarding themselves, for example, their gender, age or race. It is worth reflecting on how this might also be at play during the current pandemic.

Overall, these are undoubtedly challenging ethical questions and ones we would prefer not to have to ask, but in the face of a scenario such as the COVID-19 pandemic, their answers are not just theoretical. For that reason, it is a discussion that needs to occur, as utilization of health resources without due respect for distributive justice could see unjust collateral morbidity and mortality in our patients.

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