ICU triage in an impending crisis: uncertainty, pre-emption and preparation

Dominic Wilkinson [1,2,3]

The COVID-19 coronavirus pandemic raises a host of challenging ethical questions at every level of society. However, some of the most acute questions relate to decision making in intensive care. The problem is that a small but significant proportion of patients develop severe viral pneumonitis and respiratory failure. It now seems likely that the number of critically ill patients will overwhelm the capacity of intensive care units (ICUs) within many health systems, including the National Health Service in the UK. The experience of Northern Italy—a couple of weeks ahead of the UK, suggests that it will simply not be possible to provide mechanical ventilation to every patient who might need it. When the crunch comes, the unpalatable question facing clinicians is which patient to save.

There are some obvious strategies to avoid or reduce the problem—through measures to increase intensive care capacity, and via society-level interventions to reduce the spread of the virus. These are vitally important, but unfortunately they are unlikely to prevent the problem of demand outstripping supply from occurring. What, then, should clinicians do? How should they allocate the scarce resource of intensive care—particularly over the coming weeks as the crisis escalates?

ICU TRIAGE

There are different values at stake in triage decisions, but at a basic level the key values are those of benefit and fairness. Decisions about who to admit can either aim to secure the greatest benefit from allocation of ICU beds, or they can aim to prioritise fairness, responding as equally as possible to patient claims or need for treatment.[1]

Plausibly, the approach to ICU triage decisions attempts to balance these two values. Such a balance will depend on how much ethical weight is given to each of the values, but also, fundamentally, to the availability of resources. In a health system with ample intensive care capacity and no limitation on resources, it is possible to take an approach that strongly emphasises equality and fairness. As resources become more limited (perhaps reflecting the usual situation in intensive care in most public healthcare systems in developed countries), there is some need to temper equality with benefit.[2] Not every claim for treatment can be satisfied—there is a need to decline admission to intensive care for some patients who have a low probability of survival, or of benefiting from the treatment. However, in a situation where resources are overwhelmed, and choices cannot be avoided, the ethical balance must shift to emphasising benefit (figure 1). A few years ago, we gave members of the general public Taurek's famous 'lifeboat' thought experiment.[3] If faced with a choice between sending a lifeboat to save one patient or five patients, an overwhelming majority choose to save the five.[4] Of course, surveys of this sort do not settle controversial ethical questions. But it is arguably not controversial to suggest that in a crisis, where it is a question of the numbers of lives saved, that health systems should aim to save more people rather than fewer.

In practice, this will mean prioritising intensive care for those patients who have the highest chance of surviving. ICUs should also prioritise those patients who would have a shorter duration of intensive care stay—since that would free up space for other patients.[1]

IMPENDING CRISIS

There is a sense in which the ethical decision making becomes simplified (though not easier) at the point at which ICU capacity is exceeded. Once the surge has arrived, ICU doctors will have no choice but to prioritise some patients and deprioritise others.

There is, though, some difficulty in making decisions in the lead-up phase. In many places, elective surgery has stopped. Emergency plans are being put in place to try to increase intensive care capacity. When the first patients start to arrive, it will be easily possible to accommodate them. Yet the experience from China and Italy is that those patients will require support in intensive care for at least 1–2 weeks. They may still be in intensive care when the crunch arrives and there are no more free beds or ventilators. Should intensive care clinicians try to pre-emptively select patients with a better outlook? One problem with justifying such an approach is that of uncertainty. With a novel illness and limited experience, it is difficult to know which patients fall into better or worse prognostic groups. A second problem is that pre-emptive selection may deny some patients intensive care who could have been saved— particularly if the surge is slower in arriving or is not as great as predicted.

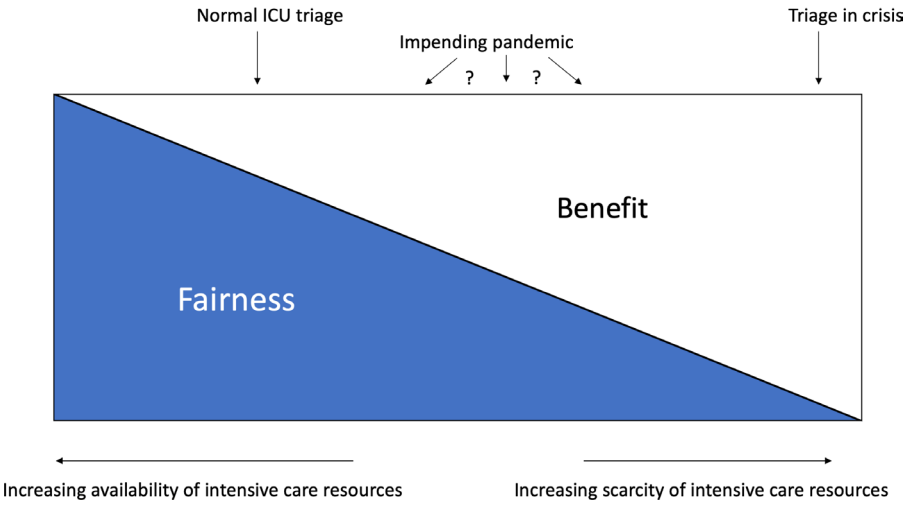

Figure 1 Balancing ethical values in Intensive Care Unit (ICU) triage

[1]Oxford Uehiro Centre for Practical Ethics, Faculty of Philosophy, University of Oxford, Oxford, UK
[2]John Radcliffe Hospital, Oxford, South Australia, United Kingdom
[3]Murdoch Children's Research Institute, Melbourne, Victoria, Australia

Correspondence to Professor Dominic Wilkinson, Oxford Uehiro Centre for Practical Ethics, University of Oxford, Oxford OX1 1PT, UK; dominic.wilkinson@philosophy.ox.ac.uk

J Med Ethics: first published as 10.1136/medethics-2020-106226 on 1 April 2020. Downloaded from http://jme.bmj.com/ on April 8, 2020 by guest. Protected by copyright.

How should intensive care clinicians make decisions in the face of an impending crisis? Here are three suggestions:

The first important element is to plan to revise triage decisions dynamically as the pandemic evolves. It is highly unlikely to be feasible or acceptable (to clinicians, patients or the wider community) to suddenly change ICU admission criteria overnight. Rather, we should expect to have to progressively adjust the approach in response to demand.

Second, there is a need for ethical discussion about how to support ICU clinicians in decision making. That discussion might focus on the process for decision making rather than the specific admission criteria (since the latter will necessarily change). There is a need to draw on clinical as well as ethical expertise, to have a transparent approach that is reasonable, accountable and inclusive.[5]

Third, when the crunch comes, it will be necessary to make decisions about continuing treatment for patients already admitted to intensive care. There is no ethically significant difference between decisions to withhold or withdraw treatments (if other factors are equal).[6] There is a strong ethical argument that in the setting of overwhelming demand, treatment should be withdrawn if a patients' prognosis worsens after admission to intensive care—sufficiently that (if known prior to admission) treatment would not have been commenced.[7] One potentially important way of preparing for this eventuality is to make explicit on admission to intensive care that treatment is being provided as a time-limited trial,[8] both for cases of COVID-19 and for patients with other critical illness. This may help families and clinicians to accept the need for later transition to palliative care if the patient deteriorates or does not improve after a reasonable period of time.

Twitter Dominic Wilkinson @Neonatalethics

Funding DW was supported for this work by a grant from the Wellcome trust 203132/Z/16/Z.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

© Author(s) (or their employer(s)) 2020. No commercial re-use. See rights and permissions. Published by BMJ.

To cite Wilkinson D. *J Med Ethics* Epub ahead of print: [please include Day Month Year]. doi:10.1136/medethics-2020-106226

Received 19 March 2020
Accepted 19 March 2020

J Med Ethics 2020;**0**:1–2.
doi:10.1136/medethics-2020-106226

ORCID iD
Dominic Wilkinson http://orcid.org/0000-0003-3958-8633

REFERENCES

1 Wilkinson D, Savulescu J. Prioritisation and parity: which disabled infants should be candidates for scarce life-saving treatment. In: Wasserman D, Cureton A, eds. *Oxford Handbook of philosophy and disability*. Oxford: Oxford University Press, 2018.
2 Ubel PA, Arnold RM. The unbearable rightness of bedside rationing. Physician duties in a climate of cost containment. *Arch Intern Med* 1995;155(17):1837–42.
3 Taurek JM. Should the numbers count? *Philos Public Aff* 1977;6(4):293–316.
4 Arora C, Savulescu J, Maslen H, *et al*. The intensive care lifeboat: a survey of lay attitudes to rationing dilemmas in neonatal intensive care. *BMC Med Ethics* 2016;17(1):69.
5 Daniels N. *Just health: meeting health needs fairly*. Cambridge: Cambridge University Press, 2008.
6 Wilkinson D, Savulescu J. A costly separation between withdrawing and withholding treatment in intensive care. *Bioethics* 2012;26:32–48.
7 Wilkinson D, Butcherine E, Savulescu J. Withdrawal aversion and the equivalence test. *Am J Bioeth* 2019;19(3):21–8.
8 Vink EE, Azoulay E, Caplan A, *et al*. Time-limited trial of intensive care treatment: an overview of current literature. *Intensive Care Med* 2018;44(9):1369–77.

J Med Ethics: first published as 10.1136/medethics-2020-106226 on 1 April 2020. Downloaded from http://jme.bmj.com/ on April 8, 2020 by guest. Protected by copyright.