

Ethical considerations regarding allocation of ventilators/ICU beds during pandemic-associated scarcity

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In a pandemic situation such as COVID-19, there may be scarcity of potentially life-saving resources such as ICU beds.

To minimise the impact, health services and governments should do everything possible to prevent a surge on ICU care, and to increase available ICU resources. Even then, scarcity may be unavoidable.

This will force changes to usual patterns of care and their associated ethical norms. By necessity, the ethical goal shifts away from a patient-centred duty of care in which the needs and preferences of individual patients are prioritised. Instead, decisions have to adopt a public health, community-facing goal of using limited resources to maximise the lives saved. This shift comes at an ethical cost, as at least some patients will not have access to potentially life-saving treatment, due to scarcity. This shift is morally challenging for clinicians and communities alike.

Resource distribution has clinical, ethical and legal implications, all of which are important. This document focuses on the ethical implications.

Distributing scarce resources in an ethically justifiable and legitimate way has two dimensions: **procedural** (to do with how the process works); and **substantive** (to do with the substance of decisions).

An ethically justifiable *process* for allocating ICU beds will:

- Be transparent and publicised – healthcare staff, patients, families and communities should be told how decisions are being made
- Be made based on good reasons that most people can accept
- Be open to revision and appeal as new information emerges about COVID-19, if resource availability changes or if there are objections
- Be consistent, so that patients in similar circumstances receive the same care as much as possible, irrespective of whichever individual staff are tasked with decision making on a particular day
- Be accountable, by identifying the individuals or committees responsible for implementing the agreed protocol, reviewing it and ensuring rigorous and consistent decision making for individual care.

To operationalise these processes, establish:

1. A dedicated triage committee to make decisions about allocation of resources. This helps ensure consistent decisions, makes responsibility for decision-making clear, and takes pressure off front-line staff so that they can focus on providing clinical care.

2. An agreed protocol with a clear decision tree to guide the triage committee, and increase transparency. Examples of decision trees are appended. See discussion of principles for triage below.
3. Agreed criteria for ICU exclusion and admission (eg combination of SOFA score or similar, general health/prognostic indicator; COVID-19 case fatality risk assessment; MulBSTA)
4. Clear policy and procedures for the triage committee (for levels of care/ICU admission, for review of ongoing ICU care)

Substantive aspects of ethical decision making – who should receive ICU care?

The following ethical principles apply in the context of crisis care.

1. ICU resources should be allocated to maximise the number of lives saved.

This is a function of

- a) prognosis – how likely each patient is to benefit from ICU care; and
- b) length of time to benefit – how long each patient is likely to need ICU care, as longer ICU stays limit access for other patients.

2. Duty of care

All patients should receive the best care possible under the crisis conditions, including palliative care, whether or not they are diagnosed with COVID-19, and whether or not they are allocated an ICU bed.

ICU beds should not be reserved for patients with COVID-19. They should be allocated to whichever patients are most likely to benefit from ICU care in the shortest possible time.

3. Fairness and non-discrimination

ICU beds should be allocated only on patient capacity to benefit, time to benefit and prognosis.

Allocation should be structured to avoid discrimination and bias. Beds should not be allocated on the basis of the following characteristics:

- a. Age;
- b. Disability;
- c. Having or not having dependents;
- d. Social standing or perceived social worth;
- e. Socioeconomic status.

Neither age nor disability should be used as a proxy for capacity to benefit.

Be aware that cognitive biases may lead decision-makers to unintentionally and unjustifiably discriminate against older persons or persons with disability.

Consider using a clinical scale to quantify judgements of capacity to benefit, time to benefit and prognosis, but ensure these are not inherently biased. Avoid measures such as QALYs that are inherently biased against persons with disabilities. Measures could include a combination of SOFA score or similar, general health/prognostic indicator, eg likelihood of surviving 3 months if ICU treatment successful; COVID-19 case fatality risk assessment; MulBSTA.

In circumstances in which there are many patients with equal prognosis, but insufficient resources to treat them all, consider:

- a. Prioritising health care workers who have been infected in the course of caring for people with COVID-19, but only if they have capacity to benefit;
- b. Using a random allocation method (such as a lottery) to allocate remaining resources.

ICU allocations should be revised if clinical judgements about expected patient benefits change over time.

Providing leadership in a pandemic

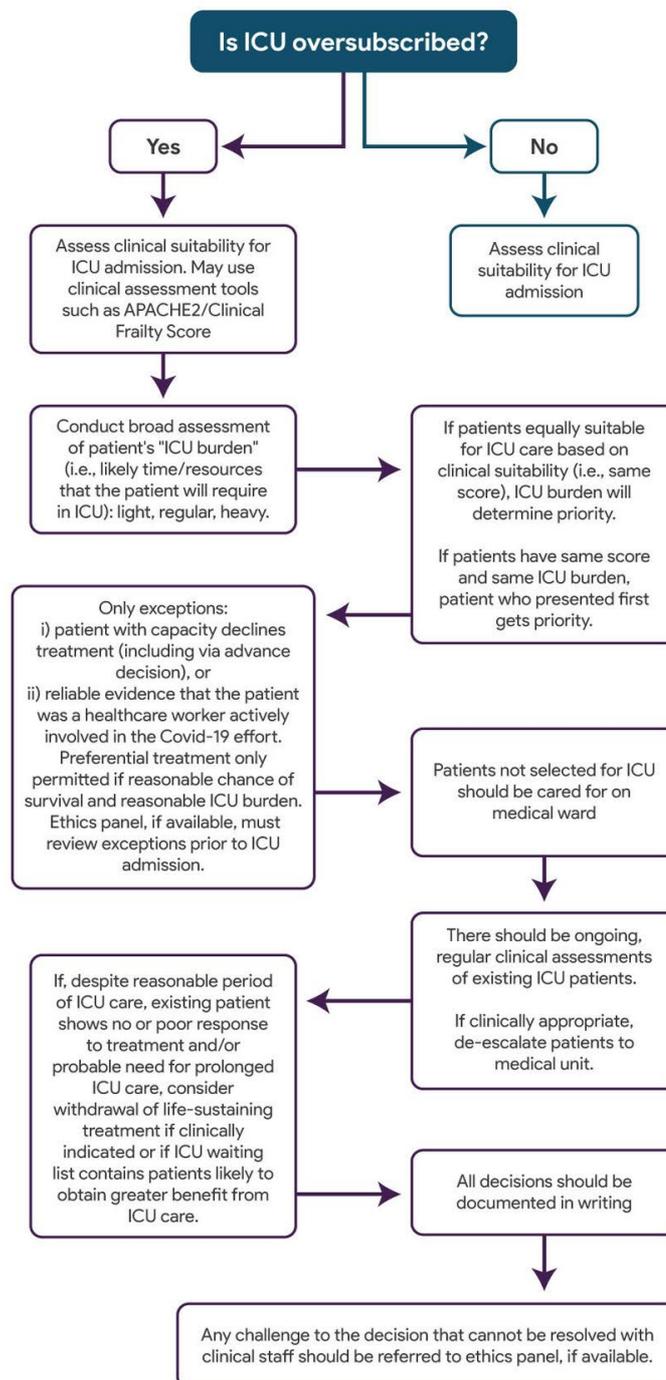
In addition to decisions about triaging to ICU, health services are well placed to provide community leadership in a pandemic. The following ethical principles are relevant to this leadership.

1. *Emphasise the common good* – in all communications, emphasise the need for all community members to work together for the good of everyone, rather than for self-interest or the satisfaction of personal preferences
2. *Emphasise the need for solidarity* – act in ways that demonstrate a collective commitment to share the burden of the pandemic and assist others even though that might be costly for us as individuals. Solidarity is important in many aspects of pandemic management. The triage committee, for example, shows solidarity with frontline staff by bearing the burden of morally distressing decision making. It is appropriate for health services to call on the local community to show solidarity with health professionals on the front line by complying with social distancing and other control measures, thus reducing the likelihood that triage will be necessary.
3. *Ensure reciprocity* – provide support to those burdened or harmed by the pandemic. This includes providing special support to healthcare workers, including ensuring access to adequate PPE, actively supporting their mental health, and potentially prioritising them for ICU care as noted above. Reciprocity also demands that society supports people suffering or burdened by the pandemic, including those who cannot visit their sick family members, those who have lost their jobs, and those who are quarantined or in social isolation.

Appendix: Existing decision trees for triage

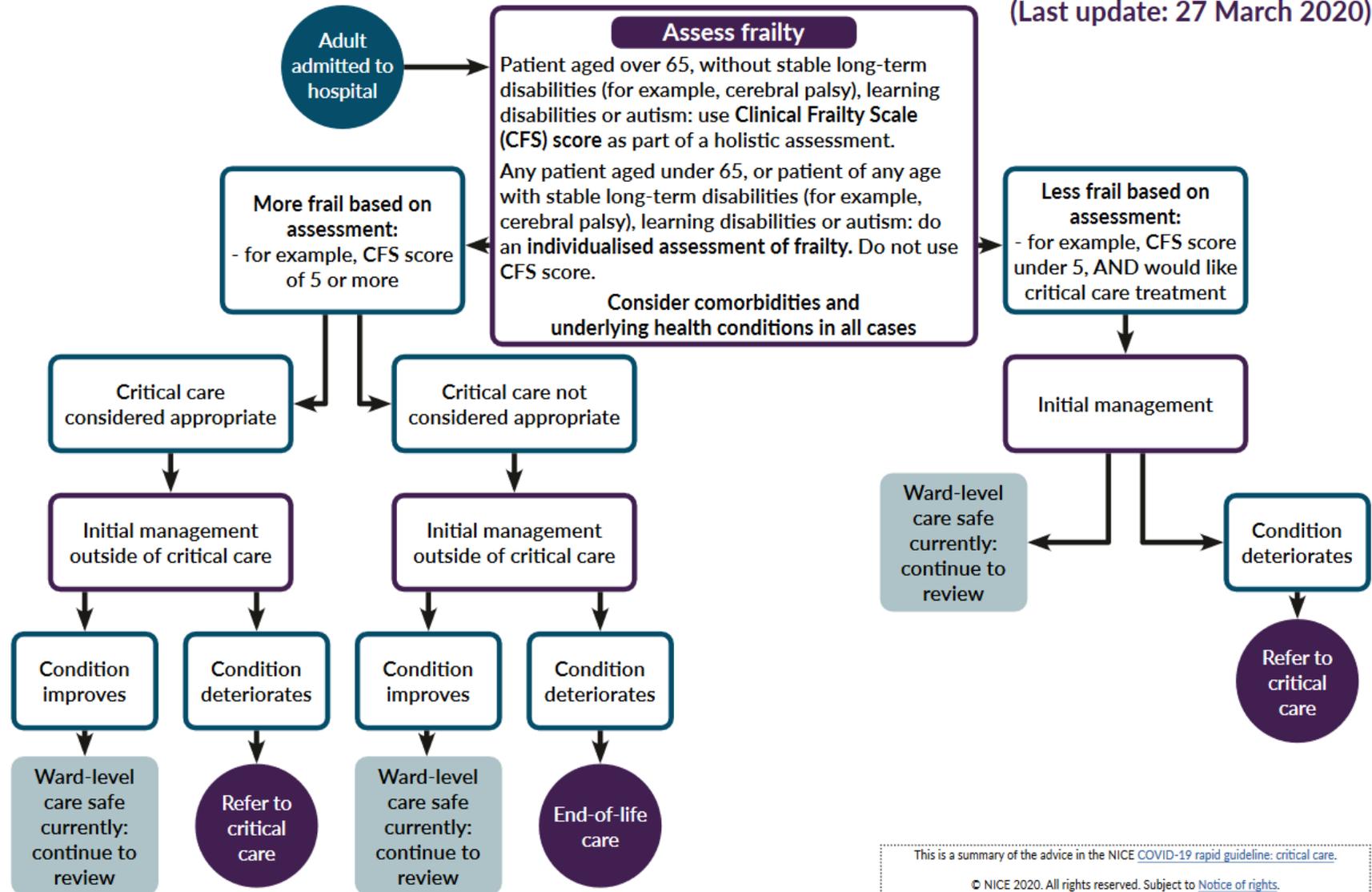
Daniel Sokol: [Decision-Making Flowchart](#) for Covid-19 ITU/Critical Care Admission

Decision-Making Flowchart for Covid-19 ITU/Critical Care Admission



This flowchart was created by Daniel Sokol, PhD, on 24th March 2020.
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ADULT Critical Care Triage Algorithm

Crisis Standards of Care

Updated Version: Mar 2020

