

**CBmE PANDEMIC ETHICS SERIES**

# Ethical Considerations in the Event of a Critical Bed Shortage in Acute Hospitals

This working paper is part of a series written by the Centre for Biomedical Ethics, Yong Loo Lin School of Medicine, National University of Singapore, and is intended to provide information for healthcare professionals and decision-makers on ethical issues arising from the COVID-19 pandemic. The views expressed do not, in themselves, reflect official government policy on these matters. Contributors to the series are listed on the last page.

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#### REFERENCES

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# Ethical Considerations in the Event of a Critical Bed Shortage in Acute Hospitals

Health systems could face a shortage of hospital beds in non-ICU wards if there is an overwhelming surge of COVID-19 patients, especially those whose illness is severe enough to warrant supplemental oxygen, regular monitoring by medical/nursing staff and/or specialised supportive care. Likewise, in an endemic situation with high levels of transmission, the numbers requiring hospital care could also outstrip capacity.

In such situations, it will become necessary for patients with mild illness and who are otherwise well to be cared for outside of acute hospitals – i.e. in community care isolation facilities; or discharged to care and isolation at home.

## Key Ethical Principles

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| 1 | Maximize the number of lives/ life years saved | This is a function of (a) prognosis (likelihood of survival/ recovery and number of life years saved), and (b) length of time to benefit (how long each patient is likely to need acute hospital care).  |
| 2 | Equal consideration                            | Avoid unjustified discrimination (differential treatment) based on gender, nationality, religious affiliation, social status, chronic illness/disability and age. These considerations are only relevant where they have significant effect on the clinical prognosis. |
| 3 | Equity   | Avoiding preventable differences between groups in relation to outcome of illness.   |
| 4 | Harm minimization / Reducing burdens           | Acting to minimize and mitigate burdens and harms associated with moving patients outside of acute hospitals for the sake of societal benefit.   |
| 5 | Inappropriate care                             | When continued inpatient treatment is either:<br><br>(a) no longer in the patient's best interests (harm of treatment now outweighs prospect of benefit) or<br><br>(b) an inappropriate use of resources given the patient's prognosis, in the context of a pandemic.  |
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If a surge is imminent, all necessary steps should be taken to expand bed capacity within acute hospitals and other healthcare facilities, and to initiate a site-of-care assessment of community facilities to identify all available resources (capacity and capability) that could meet the needs of patients with mild illness (with or without COVID-19).



In the situation where there is a need for rationing of acute inpatient care:

1. Access to hospital beds and acute care resources should be triaged according to the principles of maximizing population health benefit and equity. Priority should be given based on severity of illness and likelihood of benefit from inpatient care (e.g. those requiring supplemental oxygen) as well as preventing harm by minimising the risk of clinical deterioration if this level of care were not provided (e.g. those requiring close monitoring).
2. In determining criteria for priority, hospitals should take into account the available evidence on interventions for patients of varying severity and the context in which these can be offered. At the individual level, a key consideration is the capacity to benefit from acute hospital care relative to the alternative care facility that the patient in the specific context would be assigned to. The decision-making process should also ensure equal consideration and fair distribution of benefits and burdens. Questions will be raised if priority for admission or continued stay in hospital is based on considerations, including notions of social value, that are not related to prognosis.
3. The assessment should be made on clinical grounds at the point of admission and reassessed at planned intervals during hospital stay.
4. In the context of mass testing of asymptomatic contacts for COVID-19, a clear policy to assign patients who are assessed to be clinically at low risk of disease progression to appropriate community care facilities or home care may be made a priori on the basis of the same principles. This protocol should then be applied equally to all patients meeting the same criteria.
5. Three morally relevant considerations in this situation are:
  - A. The potential effect of the alternative community care facility, or the patient's home and family circumstances (e.g. adequate nutrition, caregiving arrangements) on the outcome of their illness. It would be incumbent on the healthcare institution to define the minimum level of care that should be received by patients based on their clinical condition. Patients who are assessed to be able to receive this level of care outside of the hospital, may be placed in such alternative care facilities. Those who are unable to receive this minimum level of treatment and monitoring in these locations should, othe prognostic factors being equal, be given priority for admission or continued stay in hospital. This is justified on the principle of harm minimization.

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b. The potential effect, if the patient is sent home to recover, on other members of the same household. Household members should have access to appropriate PPE (masks and gloves), infection prevention and control (IPC) training and be capable of adhering to precautions. Households in which some members are at high risk of complications from COVID-19, e.g. elderly with significant co-morbidities, are not suitable to care of patients who are ill.

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c. The potential effect on patients with disabilities. Patients with disabilities and those dependant on carers may well have existing care arrangement or medical needs and these should be accommodated wherever possible. Accessible communication is an important element to ensure that these patients are enabled and supported to participate in decision-making as much as possible; this will include having the appropriate support people present to contribute to decision-making.

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6. All necessary support (e.g. provision of pulse

oximeters where indicated, arrangements for financial or social support, etc) should be made available to patients who are triaged to such facilities, to allow the appropriate care plans to be implemented. The care plans should include clear guidelines for review and referral if deterioration should occur, and priority given for admission in such cases.

7. The same principles should be applied in decisions related to both COVID-19 and non-COVID-19 patients with similar levels of need, in the context of a critical bed shortage.

8. Patients, their families and the public at large, should be informed in advance that patients admitted to an acute care setting may be transferred to a community care facility or discharged to recover at home if they are assessed to not require acute care. This is necessary to ensure that patients that need acute or critical care would have access to an acute care bed during a crisis. This approach would help increase patient understanding and ease transfers from acute to community care.





# Case scenario:



30 acute hospital beds are available, and there are 40 newly diagnosed cases of COVID-19, of which 27 are foreign workers living in dormitories, aged 24-35, otherwise healthy and 13 are Singaporeans aged between 30 and 65. Six of the Singaporean cases have underlying cardiac or renal conditions.

## Approach to decision-making:<sup>1</sup>

- 1 All 40 patients should be assessed for clinical severity and potential to benefit from inpatient care relative to the alternative care facility. It is likely that the 6 patients with co-morbidities will be prioritized.
- 2 Age should be a consideration in as far as it is suggestive of higher risk of poor outcome without acute care and therefore greater likelihood to benefit from admission. Nationality is irrelevant and should not be a consideration in assigning priority.

<sup>1</sup> Where there is no critical shortage, first-come-first-served is often the default principle and resources are typically allocated locally on the principle of "next in line" and no one is excluded a priori. In a pandemic situation, FCFS may not be ethically appropriate as it favours those who have ease of access to care and may result in excluding patients who happen to get sick later on, which undermines benefit maximization and equity. Based on projected demand, it is ethically acceptable for hospitals to keep some beds empty in order to cope with a possible surge in patients with a high need for acute care. Healthcare institutions should determine, based on incidence data, the threshold at which triage principles should begin to apply.

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