



Framework for Decision-making Regarding Escalation of Care in a Pandemic Situation

Inevitably difficult decisions will need to be made during the COVID-19 pandemic, particularly regarding escalation of care as supply of intensive care beds and other high level care facilities will become limited.

The **key principles** which should govern decision-making are as follows¹:

Accountability	The Trust and those making decisions should be prepared and willing to explain and justify the decision-making process. Decisions should be made in line with available national guidance.
Inclusivity	Decisions should be taken with stakeholders and their views in mind.
Transparency	Decisions, and the basis on which they have been made, should be publicly defensible. Relevant information should be readily accessible to stakeholders.
Reasonableness	Decisions should be based on evidence, principles and values that stakeholders can agree are relevant to health needs, and these decisions should be made by credible and accountable members of staff.
Responsiveness	As new information emerges, decision-making should be revisited and, as appropriate, revised. Mechanisms should be in place to address disputes and concerns.

Key system requirements to enable the above principles to be met:

Decision-making in general

- Decision-making should take place across the organisation: at the point of admission, with any significant change in the patient's condition, at points of potential escalation of care and at the point of discharge.
- All senior clinicians should take pro-active responsibility for decision-making (see appendix 1)
- Decision-making, particularly with respect to ceilings of treatment, should be made as early as possible in the admission pathway. However, these should be reviewed if the clinical state/prognosis of the patient changes.
- Where possible decision-making should involve patients and relatives.
- Support should be available to staff making decisions (for wellbeing and support see <http://uhn/uhn/myuhnm/my-staff-experience/my-wellbeing-toolkit/>)

Decisions regarding escalation of treatment

- Decision-making regarding escalation of treatment to critical care should follow a clear pathway, including the use of a single standard agreed stratification tool (see appendix 2) when critical care bed capacity becomes limited
- Non-elective decisions will need to be made in real-time by ITU staff who should act as gatekeepers of this resource, taking in to account information from the clinical referrer
- Where possible escalation decisions need to be made by more than one critical care specialist and a consensus formed
- Decision-making should be accurately documented along with the factors and key determinants of the decision-making process. The names and positions of those making the decision should be included

- Prioritisation should be backed by evidence suggesting likely outcome where available
- Flexibility is required in decision-making in order to reflect relative fluctuations in demand and capacity for ITU (which will inevitably change, sometimes rapidly, in a pandemic situation). The process used should allow for such flexibility.
- UHNM should be prepared, if and when appropriate, to undertake a retrospective review or audit of documentation of decision-making (either all cases or a sample). This should be undertaken by a suitable group, including representation from the Clinical Ethics Forum.

Decisions regarding prioritisation of urgent elective cases

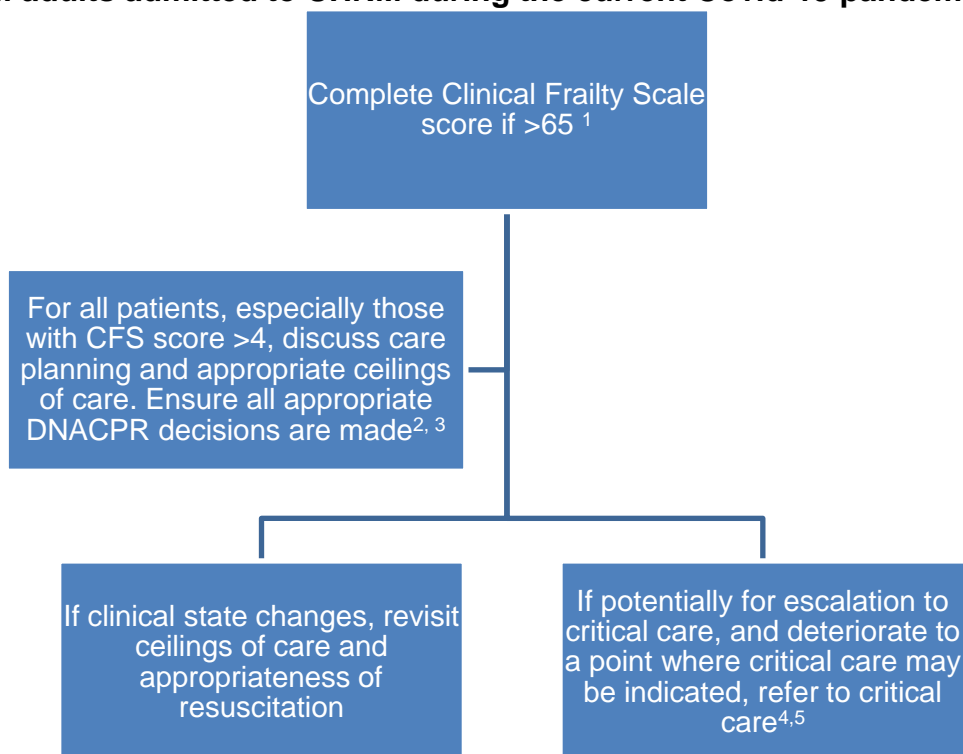
- Decisions on prioritisation need to take into consideration urgent elective (such as cancer treatment) and non-elective (emergencies and trauma) as well as COVID cases
- Elective decision-making will be performed by the elective prioritisation group which will include senior clinicians and ITU consultant representation. These decisions will be made at planned daily meetings.
- Decisions should be made by a group with sufficient breadth of knowledge to understand the totality of demand. For example, if prioritising cases such as aortic aneurysms and oesophageal cancers the group should have knowledge of both areas
- It is vital to ensure that sufficient clinical information is available to those making decisions.
- There needs to be interaction between elective and escalation/emergency (non-elective) decision-making with respect to access to level 2 and 3 care. Therefore, some members of the elective prioritisation group need to be fully apprised of the emergency and escalation level of referrals and potential admissions.
- The decisions made by the elective prioritisation group need to be shared with those making critical care escalation decisions so there is clear knowledge of the proposed level 2 and 3 burden on a daily basis.

Reference

1. Thompson AK, Faith K, Gibson JL and Upshur REG (2006). Pandemic influenza preparedness: an ethical framework to guide decision-making. BMC Medical Ethics 7

APPENDIX 1 - DECISION-MAKING ALGORITHM: ESCALATION OF TREATMENT

All adults admitted to UHNM during the current Covid-19 pandemic



1. As per NICE guidance <https://www.nice.org.uk/guidance/ng159/resources/critical-care-admission-algorithm-pdf-8708948893>

NB. Do NOT use Clinical Frailty Scale (CFS) if under 65, or have long-term disabilities (such as cerebral palsy), learning disabilities or autism.

For CFS see <https://www.nice.org.uk/guidance/ng159/resources/clinical-frailty-scale-pdf-8712262765>

2. This should be done wherever possible in conjunction with the patient +/- relatives. However, if the decision is particularly difficult, there is a difference of opinion, or any consideration is being given to resource implications then serious consideration should be given to involving a second decision-maker. Collaborative decision making in such circumstances will probably be seen as good practice.

Cardiopulmonary resuscitation should be restricted to those with capacity to benefit. Resuscitating a patient who will not be suitable for critical care admission is inappropriate. Aside from the burdens to the patient inflicted by inappropriate attempts at CPR, such attempts place staff at unnecessary risk, and potentially compromise the care of other patients. <https://www.bma.org.uk/media/2226/bma-covid-19-ethics-guidance.pdf>

3. Please also consider whether completion of a ReSPECT form would be of benefit: information (including Covid specific information) is available on the intranet and at <https://www.resus.org.uk/respect/> Elderly patients may also have a 'frailty passport' containing information about their wishes: if one is brought to your attention please use it to inform decision-making

4. Very careful consideration should be given before referral is made where the likely benefit from critical care is extremely small. Examples include but are not limited to the following: severe baseline cognitive impairment (such as dementia), advanced untreatable neuromuscular disease, metastatic malignant disease, advanced and irreversible immunocompromise, severe and irreversible neurologic event or condition, NYHA class 3 or 4 heart failure, advanced COPD, pulmonary fibrosis, advanced liver disease and severe multisystem trauma in the elderly.

Age over 80 is not a reason in itself not to refer to critical care but you should carefully consider whether referral is appropriate, particularly if the patient has co-morbidities.

These criteria apply to every patient potentially in need of critical care admission and not just those with Covid-19 infection.

5. Referral to critical care must have been discussed with an appropriate consultant for example, (from the referring specialty) before the referral is made. Please be aware that critical care resources are likely to be limited and the critical care team will have the difficult role of reserving very limited resources for those who have a greater probability of survival.

APPENDIX 2 - SWBH ADMISSION TRIAGE TOOL – LOCALLY ADAPTED FOR COVID 19

This tool is designed to ensure equitable access to critical care resources during a period of excessive demand in a Pandemic. It is **NOT** to be used without a declaration of a Pandemic by the Department of Health or Chief Executive UHNM NHS Trust or his\her representative.

Instructions for the application of the triage protocol to determine a patient's need for critical care during an influenza pandemic

1. Assess whether the patient meets the **inclusion criteria (step 1)**:
 - If yes, proceed to **step 2**
 - If no, reassess patient later to determine whether clinical status has deteriorated
2. Assess whether the patient meets the **exclusion criteria**:
 - If no, proceed to **step 3**
 - If yes, assign a "blue" triage code; *do not* transfer the patient to critical care; continue current level of care or provide palliative care as needed
3. Proceed to **triage tool** – SOFA score & triage allocation
4. Follow critical care referral guidelines

Step 1: Inclusion Criteria

The patient must have one of the following:

A. Requirement for Invasive Ventilatory Support

- SpO₂ < 90% on non-rebreathe mask @ 15L/min oxygen flow
- Or Respiratory acidosis pH < 7.2
- Or Clinical evidence of impending respiratory failure Respiratory rate > 40
- Or Inability to protect or maintain airway GCS <8
- Refractory hypoxemia

B. Hypotension

- Systolic blood pressure < 90 mm Hg
- Clinical evidence of shock
- Altered level of consciousness
- Decreased urine output
- Refractory to volume resuscitation

Step 2: Exclusion Criteria

The patient is excluded from admission or transfer to critical care if any of the following is present:

A. Severe Trauma

- Age >60 yrs

B. Severe Burns with any 2 of the following:

- Age > 60 yrs
- 40% of total body surface affected
- Inhalation injury

C. Cardiac Arrest

- Un-witnessed cardiac arrest
- Witnessed cardiac arrest, not responsive to electrical therapy (defibrillation or pacing)
- Recurrent cardiac arrest

D. Severe Baseline Cognitive Impairment

E. Advanced Untreatable Neuromuscular Disease

F. Metastatic Malignant Disease

G. Advanced and Irreversible Immuno compromised

H. Severe and Irreversible Neurologic Event or Condition

I. End-Stage Organ Failure Meeting the Following Criteria:

Heart

- NYHA class III or IV heart failure
- Lungs
- COPD with FEV1 < 25% predicted, baseline
- PaO² < 55 mm Hg, or secondary pulmonary hypertension
- Cystic fibrosis with post bronchodilator FEV1 < 30% or baseline PaO² < 55mm Hg
- Pulmonary fibrosis with VC or TLC < 60% predicted, baseline PaO² < 55 mm Hg, or secondary pulmonary hypertension
- Primary pulmonary hypertension with NYHA class III or IV heart failure, right atrial pressure > 10 mm Hg, or mean pulmonary arterial pressure > 50 mm Hg
- Liver
- Child–Pugh score C

J. Pre-morbid dependency requiring major assistance with ADL's

K. Elective palliative surgery

Step 3: Physiological Assessment

SOFA Score

Variable	Score				
	0	1	2	3	4
PaO ² on 15L O ²	> 40	30 – 39	20 – 29	10 – 19	<10
Platelet count - 10 ⁶ /L	> 150	≤150	≤100	≤50	≤20
Bilirubin μmol/L	<20	20 - 32	33-100	101-203	>203
Hypotension	MAP >70mmHg	MAP <70mmHg	MAP		
GCS	15	13 - 14	10 - 12	6 - 9	<6
Creatinine μmol/L	<106	107-168	169-300	301-433	>434

Triage allocation

Triage code	Criteria	Action or priority
Blue	Exclusion criteria met or SOFA score > 11	<ul style="list-style-type: none">• Manage medically• Provide palliative care as needed
Red	SOFA score ≤ 7 or single-organ failure	Highest priority
Yellow	SOFA score 8 – 11	Intermediate priority
Green	No significant organ failure	<ul style="list-style-type: none">• Defer or discharge• Reassess as needed

Section 4: Critical Care Referral

Checklist: Fulfills inclusion criteria Yes
Does Not fulfill exclusion criteria Yes
SOFA Score ≤ 11 Yes

Contact Critical Care Team

Outcome: Patient accepted by CCS - Level 3 (ICU) care
Patient accepted by CCS - Level 2 (HDU) care
Patient not accepted – no capacity