



Allocation of Scarce Resources During a Public Health Emergency Riverside University Health System Medical Center

Executive Summary

This document provides decision making guidance to the leadership of Riverside University Health System Medical Center (RUHS) when the demand for scarce resources required for maximizing survival outstrips the available supply during a public health crisis. The following concepts are described:

Phased Response to a Surge Event – medical care provided during a surge event occurs in phases along a continuum. The phases are conventional care, contingency care, and crisis care. Hospital leadership should determine which phase the health system is in when responding to a surge event.

Separation of Allocation Decisions from Direct Patient Care – it is imperative to separate the bedside clinician from the type of proactive allocation decisions required during crisis care by forming independent Resource Allocation (RA) teams. This allows the patient-physician relationship to remain intact and balances the duties required of clinical ethics and public health ethics. The RA team will use an allocation algorithm to prioritize patients to receive scarce resources

Allocation Algorithm – resource allocation will be provided based on the patient’s acute disease severity score. Comorbid conditions may be considered after the initial allocation. RUHS’s allocation algorithm has been intentionally modified to protect the vulnerable populations that this hospital system serves.

Quality Review and Improvement – the Medical Director for Quality and Patient Safety will oversee care provided in crisis conditions. Oversight will include adjudicating appeals of allocation decision through the Review Assessment Committee.

Communication – hospital leadership will commit to provide clear and concise communication about crisis care to clinicians, patients and their representatives, and the community.

Palliative Care and Geriatrics Services – all patients will receive appropriate symptom and pain management regardless of allocation decisions. The Palliative Care and Geriatric services are an essential component of crisis care implementation.

Mechanism for Appeal – bedside clinicians may appeal allocation decisions. The depth of decision review is directly dependent on whether the patient is already receiving the resource and the level of need for the scarce resources.

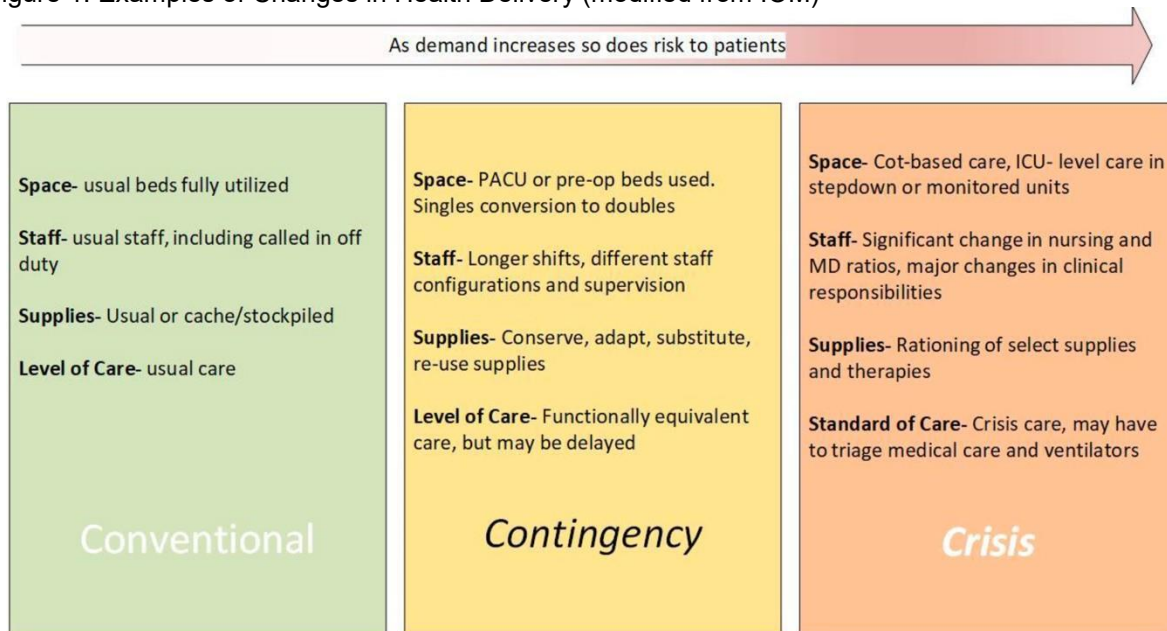
Ethical Principles – resource allocation requires balancing ethical obligations foundational to both clinical ethics (the duty to care) and public health ethics (duties to promote equality and equity in the distribution of risks and benefits to society). These two sources of moral authority have subsidiary duties including respect for the patient’s rights and personal preferences, the relief of suffering, the duty to steward resources, fidelity (patient non-abandonment) and transparency.

Introduction

When a crisis occurs in a community, healthcare institutions are expected to increase their capacity for patient care. Inevitably, this increase in capacity will sometimes result in resource scarcity. A localized crisis can be managed by appeals for regional or statewide help. However, in a widespread crisis, when there are few statewide or federal resources to turn to, leadership of healthcare institutions and organizations coordinate to form regions of resource sharing. Coordinated solutions to resource management will be tailored to the situation in the affected community.

It is helpful to categorize resource scarcity by phases on the care continuum as follows:

Figure 1: Examples of Changes in Health Delivery (modified from IOM)



“California SARS-CoV-2 Pandemic Crisis Care Guidelines”, California Department of Public Health (June 2020)

In a widespread crisis, the RUHS Chief Medical Officer is responsible for communicating the decision to shift to crisis standards of care to the clinical teams. Ideally, a shift to crisis standards of care at RUHS should be done simultaneously with a regional or even statewide shift. Although ventilators are used in prototypical scenarios of critical resource shortages, it is important to remember that shortages of other resources can halt the efficient delivery of care. Resources that are critical to the ongoing treatment of patients include equipment (ventilators, renal replacement therapy, infusion pumps, personal protective equipment, etc.), personnel (physicians, nurses, respiratory care practitioners, etc.), medications, and beds (not an exhaustive list). A shortage of essential resources can necessitate a shift from standard care to crisis care. During crisis conditions, patient prioritization and resource allocation strategies are implemented to match available resources to patient need.

Separating Resource Allocation from Direct Patient Care

When anticipating implementation of crisis standards of care, RUHS should create Resource Allocation (RA) teams to prioritize patients to receive scarce resources. **It is important to emphasize that physicians responsible for frontline patient care should not make resource assessment and allocation decisions.** RA teams are utilized to separate frontline clinicians (whose ethical obligation is to their individual patient) from those responsible for public health decision making (whose ethical obligation is to the community). This is intended to ensure quality decision making, enhance objectivity, avoid conflicts of commitments, and minimize moral trauma and distress. A RA team with specific training will

prioritize patients using a previously agreed upon algorithm to ensure a single approach in the medical center. **The CMO should clearly communicate to all physicians that resource allocation decisions made by the RA team supersedes decision making by the bedside physicians.**

Resource Allocation Teams

A RA team will consist of a RA officer and at least 1 additional team member. The CMO is responsible for selecting RA officers and RA team members and should maintain a roster of team members large enough to ensure that a team will always be available on short notice. Each RA team reports to the CMO or designee and is led by the RA officer. During crisis conditions, the RA officer will be responsible for coordinating allocation decision making for their team. RA team members should work shifts no longer than 13 hours (to allow for handoff) and be given at least 10 hours of rest in between shifts.

A RA team should consist of a clinically active physician from a relevant specialty and at least one nurse or member of an allied healthcare profession (such as a respiratory care practitioner or social worker). The physician's primary practice could preferentially be from one of the following specialties: critical care, pulmonology, cardiology, infectious disease, emergency medicine, pediatrics, internal medicine, family medicine, surgery, nephrology, preventive medicine, and others.

Hospital leadership should provide the RA teams with sufficient support and IT staff to collect, analyze, and distribute information about the team's work.

Duties of RA Teams

Allocation decision making includes the following tasks:

1. Receiving the list of eligible patients for allocation
2. Assessing (or re-assessing) all patients eligible to receive the scarce resource using the allocation algorithm
3. Assigning a level of priority for each patient
4. Determining the extent of resource availability
5. Identifying the highest-priority patients
6. Communicating resource allocations decisions with treating physicians
7. Coordinating with the treating physicians to communicate priority and resource allocation status with patients and their families
8. Comprehensive documentation of resource allocation decision making in each patient's EHR

Determining Resource Availability

The CMO and the Hospital Incident Command Center should determine the amount of resources available to distribute at least twice a day. Available resources will inform the RA teams which priority score will result in access to critical care. These determinations should be based on real-time knowledge of the degree of scarcity of the critical care resources, as well as information about the predicted volume of new patients that will likely require the resource over the near-term. It is appropriate to reserve resources in anticipation of near-term future use. As scarcity subsides, patients with progressively lower priority scores should have access to critical care resources.

Allocation Algorithm

1. All patients requiring emergency stabilization either in the Emergency Department or on the hospital floor will receive stabilization treatment before any resource allocation decision is made. Scarce resource(s) may be provided during the stabilization process with the understanding that the resource may be withdrawn after the allocation process is performed.
2. Patients will be assessed for conditions present in **Table 2**. Patients with conditions listed in **Table 2** will not be eligible for allocation of ICU care or ventilator use.
 - a. The Palliative Care service (≤ 65 years old) or Geriatrics service (>65 years old) should be consulted for all patients deemed ineligible for allocation of ICU level of care or ventilator use.
3. Treating physicians will identify all patients who require the use of scarce resources. Examples of patients who require ICU level of care or ventilator use is provided in **Table 1**.

4. A disease severity score will be calculated for each patient requiring a scarce resource. Currently, the score that is being used is the SOFA score (**Table 3**) or mSOFA score (**Table 4**). **Table 5** compares the differences between the two scores.
5. The patient will then be assigned to a priority group based on his/her disease severity score. **Table 6** shows the prioritization groups by SOFA or mSOFA score. The priority group assignment should be noted clearly in the patient's chart or electronic medical record by the RA team.
6. The availability of the scarce resource will determine how many eligible patients will receive (or continue to receive) the resource. Patients in group 1 will receive the resource first, followed by patients in groups 2, 3, and 4. Patients with the highest score within the priority group will receive resources before patients with a lower score in the same priority group
7. Patients and/or their agent/surrogate will be notified of the decision.

Table 1: Medical Criteria supporting consideration of ICU care or Ventilator Use

Requires invasive mechanical ventilation	<ul style="list-style-type: none"> • Refractory hypoxemia (SpO₂<90% on non-rebreather mask at flow of ≥15 LPM) • Respiratory acidosis with pH < 7.20 on arterial blood gas • Clinical evidence of respiratory failure • Inability to protect airway
Requires vasoactive support for hypotension or unstable rhythm	<ul style="list-style-type: none"> • Systolic blood pressure < 90 mmHg with clinical evidence of shock (end-organ failure) refractory to volume resuscitation • Unstable bradyarrhythmia refractory to electrolyte replacement • Unstable tachyarrhythmia requiring vasoactive drip or cardioversion
Requires intensive neurologic monitoring or intervention	<ul style="list-style-type: none"> • Acute neurologic condition (e.g. intracranial/intraventricular hemorrhage, subarachnoid bleed with unsecured aneurysm, traumatic brain injury, or ischemic stroke with mass effect or acute hydrocephalus, severe CNS infection) with Glasgow Coma Scale < 13 • Status epilepticus refractory to initial antiepileptic therapy • Spinal cord injury at or above C5 with ASIA-A and B
Requires intensive interventions for trauma or major surgical condition	<ul style="list-style-type: none"> • Polytrauma within 24 hours of presentation • Post-operative condition with significant instability (e.g., open abdomen)

Table 2: Medical Criteria supporting lack of benefit from ICU care or Ventilator Use

Catastrophic cardiac arrest	<ul style="list-style-type: none"> • Out-of-hospital unwitnessed arrest • Out-of-hospital witnessed arrest without ROSC after ≥30 mins of ACLS without shockable rhythm • In-emergency-department or in-hospital witnessed arrest without ROSC after ≥30 mins of ACLS without shockable rhythm
Catastrophic burns	<ul style="list-style-type: none"> • American Burn Association expected mortality ≥90%
Catastrophic trauma (general)	<ul style="list-style-type: none"> • Trauma Injury Severity Score predicting ≥90% mortality • Traumatic brain injury with Glasgow Coma Score motor response ≤ 2 at presentation
Catastrophic trauma (neurologic)	<ul style="list-style-type: none"> • Traumatic subdural hematoma that results in >1.5cm of midline shift with loss of (near) all brainstem reflexes • Any sized traumatic epidural hematoma that has resulted in evidence of uncal herniation and brainstem infarction with loss of brainstem reflexes • Gunshot Wound to Head: Transtentorial - Bullet track passes through the ventricle from one hemisphere to the other • Severe Traumatic Brain Injury with GCS 3 with fixed and dilated pupils after return of circulation with MAP> 65 or radiographic and clinical evidence of brainstem injury with fixed and dilated pupils in the absence of hydrocephalus • Spinal Cord Injury: Atlanto-occipital dislocation with brainstem hemorrhage
Catastrophic irreversible neurologic injury	<ul style="list-style-type: none"> • Anoxic brain injury clearly present at time of presentation • Catastrophic ischemic stroke at time of presentation with HIAT-2 score 8-10 • Catastrophic ischemic stroke at 24-hour re-evaluation with mortality > 90% based on nomogram below • Ischemic stroke with left-sided (dominant) hemispheric stroke in complete MCA distribution <u>or</u> right-sided hemispheric stroke in complete MCA distribution with age > 80 • Brainstem infarcts that would result in locked-in syndrome • Catastrophic status epilepticus due to one of the irreversible brain injuries listed in Table 2 <ul style="list-style-type: none"> • <i>Catastrophic status epilepticus after 72h without response to therapy will be considered a form of irreversible brain injury but not considered at time of presentation</i> • Intracranial hemorrhage > 100 cc in any hemisphere, • Brainstem hemorrhage > 2 cm or cerebellar hemorrhage with loss of brainstem reflexes • Ruptured aneurysm in patient with Hunt-Hess score of 5 whose exam cannot be explained by reversible factors (seizure, hydrocephalus, or medication)

Table 3: SOFA Score - If there is more than one value for an organ system generated during a 24-hour period, the highest value is used to calculate the SOFA score

Variable	0	1	2	3	4
PaO ₂ /FiO ₂ mmHg	>400	≤ 400	≤ 300	≤ 200	≤ 100
Platelets, x 10 ³ /μL (x 10 ⁶ /L)	> 150 (>150)	≤ 150 (≤ 150)	≤ 100 (≤ 100)	≤50 (≤50)	≤ 20 (≤ 20)
Bilirubin, mg/dL (μmol/L)	<1.2 (<20)	1.2-1.9 (20 – 32)	2.0-5.9 (33 – 100)	6.0-11.9 (101 – 203)	>12 (> 203)
Hypotension	None	MABP < 70 mmHg	Dop ≤ 5	Dop > 5, Epi ≤ 0.1, Norepi ≤ 0.1	Dop > 15, Epi > 0.1, Norepi >0.1
Glasgow Coma Score (GCS) *	15	13 – 14	10 - 12	6 - 9	<6
Creatinine, mg/dL (μmol/L)	< 1.2 (<106)	1.2-1.9 (106 – 168)	2.0-3.4 (169 - 300)	3.5–4.9 (301 – 433)	>5 (> 434)

Sequential Organ Failure Assessment (SOFA) score SOFA Scale

Dopamine [Dop], epinephrine [Epi], norepinephrine [Norepi] doses in ug/kg/min SI units in brackets

Adapted from: Ferreira FI, Bota DP, Bross A, Melot C, Vincent JL. Serial evaluation of the SOFA score to predict outcome in critically ill patients. JAMA 2001; 286(14): 1754-1758.

*GCS should not add points to the SOFA score when a patient cannot articulate intelligible words, even if this condition is due to a pre-existing speech disability or chronic ventilation. Clinicians should use clinical judgment to adjust SOFA scores downward where appropriate to account for chronic baseline levels of physiological functional impairment not caused by COVID-19, including for any temporary elevation of a score or score element caused by any patient inability to access a regularly used stabilizing device or treatment (such as a CPAP or BiPAP unit, dialysis, or specific medications).

Table 4: The mSOFA score eliminates the need for the platelet count, replaces bilirubin measurement with physical presence or absence of jaundice or scleral icterus, and allows for the peripheral oxygen saturation to be measured instead of the PaO₂.

Modified Sequential Organ Failure Assessment (mSOFA) Score

Organ System	0	1	2	3	4
Respiratory SpO ₂ /FiO ₂	>400	≤400	≤315	≤235	≤150
Liver	No scleral icterus or jaundice			Scleral icterus or jaundice	
Cardiovascular, hypotension	No hypo- tension	MAP <70 mm Hg	dopamine≤5 or dobutamine any dose	dopamine>5 epinephrine≤0.1 norepinephrine≤0.1	dopamine>15 epinephrine>0.1 norepinephrine>0.1
CNS, Glasgow Coma Score	15	13-14	10-12	6-9	<6
Renal, Creatinine mg/dL	<1.2	1.2-1.9	2.0-3.4	3.5-4.9	>5.0

MAP=mean arterial pressure

dopamine, dobutamine, epinephrine, and norepinephrine doses in micrograms per kilogram per minute

CNS=central nervous system

Table 5

Comparison of the SOFA and M-SOFA scores

Organ System	SOFA score	MSOFA score
Respiratory	PaO ₂ /FIO ₂ ratio	SpO ₂ /FIO ₂ ratio
Coagulation	Platelet Count x10 ³ /μL	Not scored
Liver	Bilirubin level, mg/dL	Scleral icterus or jaundice
Cardiovascular	Hypotension or vasopressors	Same as SOFA score
Central Nervous System (CNS)	Glasgow Coma Score (GCS)	Same as SOFA score
Renal	Creatinine mg/dl or urine output	Same as SOFA score

PaO₂/FIO₂ ratio: partial pressure of arterial oxygen divided by the fraction of inspired oxygen

SpO₂/FIO₂ ratio : arterial oxygen saturation measured by a pulse oximeter divided by the fraction of inspired oxygen

Table 6

Principle	Specification	Priority Group*			
		1	2	3	4
Current Overall Clinical Status	Prognosis for acute survival (SOFA score, mSOFA, or other severity of illness score#)	SOFA score < 6 Or mSOFA < 6	SOFA score 6-8 Or mSOFA 6-8	SOFA score 9-11 Or mSOFA 9-11	SOFA score ≥12 Or mSOFA ≥12

Resolving “Ties” Between Patients with the Same Disease Severity Score

A “tie” can occur if there are not enough resources for patients who have been given the same SOFA or mSOFA score during prioritization. In the event of a tie, priority may be given to patients without severe life-limiting comorbidities. Comorbid conditions should only be considered if the condition will impact near-term survival. The following conditions are listed in the California Crisis Care Guidelines as examples of severe life-limiting conditions:

- Minimally conscious or unresponsive wakeful state from prior neurologic injury
- American College of Cardiology / American Heart Association Stage D heart failure
- World Health Organization Class 4 pulmonary hypertension
- Severe chronic lung disease with FEF₁ < 20% predicted, FVC < 35% predicted
- Cirrhosis with a model for end-stage liver disease score ≥ 20
- Metastatic cancer with expected survival ≤ 6 months despite treatment
- Refractory hematologic malignancy (resistant or progressive despite conventional initial therapy)

If the “tie” is not resolved by consideration of severe comorbidities, a lottery (i.e. random allocation) should be used to break the tie.

Reassessment and Reallocation of Scarce Resources

After initiation and/or allocation of treatment, patients should receive a time limited trial of therapy that is determined by the natural history of the disease and the physician’s clinical interpretation of the trajectory of the patient’s clinical course. Trial duration of therapy should be defined as early as possible and adjusted as data about the particular disease state emerges. Patients receiving scarce resources, such

as ICU care or mechanical ventilation, who experience significant clinical decline at the end of the trial period may have the resource withdrawn after notification of the patient and/or family. Reassessment and re-allotment may occur prior to the end of the trial period if the patient sustains a rapid and substantial decline in their condition such that their risk of mortality is significantly increased. The reassessment process should occur by the following steps:

1. Patients will be periodically assessed during the course of their treatment at pre-determined times. During re-assessment, the patient's disease severity score will be re-calculated and the patient placed in the appropriate prioritization group.
2. If the patient's prioritization score indicates removal of the scarce resource, the RA team will promptly notify the attending physician of the decision.
3. The patient and/or the patient's agent/surrogate will be notified of the decision.
4. The scarce resource will be withdrawn and clinically indicated alternative forms of intervention will be provided.

Quality Assessment, Oversight, and Reporting

To ensure adherence to ethical principles, the Medical Director for Quality and Patient Safety is responsible for fulfilling the following responsibilities:

1. Developing and deploying a method of tracking implementation of this policy
2. Defining and describing quality performance of RA teams
3. Longitudinally analyzing RA team performance
4. Reporting on RA team quality measures to the CMO at regular intervals

The Medical Director is also responsible for chairing the Review Assessment Committee (RAC), which reviews and adjudicates appeals for resource allocation decisions. RAC members should be appointed by the CMO.

Mental Health and Moral Distress

Management of the mental health of frontline clinicians and the RA team will be prioritized by ensuring that crisis counseling is readily available throughout the time period in which crisis conditions exist. Clinicians are strongly encouraged to avail themselves of peer and professional support during, and after the pandemic surge occurs. The hospital incident command center has a list of resources available for psychological support of health care professionals.

Communication

It is that imperative clear and concise communication be provided to all stakeholders regarding this policy. Specific considerations for communication are:

- Changes to the assessment and allocation algorithms may be made in consultation with the CMO or his/her designee with the intent to promote equity and equality. Once in use, re-assessment and subsequent changes of the algorithms may occur.
- The CMO or his/her designee should clearly communicate to clinicians, the community, and other relevant stakeholders when he or she determines the hospital to be in crisis conditions, as this is the trigger to activate the RA teams.
- After an assessment decision is made the RA officer is responsible for communicating with the responsible physician about the outcome. The RA officer has final authority over allocation decisions.
- Every effort should be made to provide truthful and accurate information to the patient and/or family including if the patient may be put through a prioritization process to determine allocation of scarce resources. This should be shared with the patient and/or family by the bedside clinician. If the patient is not prioritized to receive treatment that maximizes the probability of survival, this information must be shared with the patient and/or family as soon as possible. Understandably, some clinicians may not want to share this news to the patient and/or family. There are two appropriate ways for sharing accurate information about the availability of scarce resources:

1. The responsible physician may tell the patient and/or family alone.
2. The responsible physician and the RA officer or a RA team member may tell the patient and/or family together.

The RA officer and the responsible physician should decide together on the appropriate approach for each patient. The RA officer and/or RA team member should not share the bad news alone with the patient and/or family member as this can blur the roles between resource allocation and clinical care. However, the RA officer and/or team member may guide the responsible physician by suggesting ethically appropriate ways to approach the conversation.

Integration with the Palliative Care Service

Every effort should be made to involve the Palliative Care and Geriatrics teams early in the hospitalization for every patient who may be prioritized for allocation of scarce resources to help with symptom management and emotional support. Requesting a Palliative Care consult is appropriate for every patient diagnosed with a life limiting condition, regardless of the stage of the patient's disease.

Appeals Process for Allocation Decisions

A healthcare professional may file an appeal after an allocation decision has been made. An appeal may not be brought based on the individual's objection to the hospital's determination of crisis conditions or the overall allocation framework. All appeals are reviewed by the Review Assessment Committee (RAC), which is chaired by the Medical Director for Quality and Patient Safety. All decisions by RAC are final.

An appeal may be brought in the following situations:

1. An error in calculating the prioritization score in an allocation decision for a patient who has not yet received the scarce resource – the prioritization score will be reviewed and recalculated. If the recalculation is correct, the original prioritization score stands.
2. An error or an inappropriate interpretation of the patient's severity of illness in an allocation decision for a patient who is currently receiving the scarce resource – if time does not allow for a prolonged appeals process, the review can consist of verification of the original prioritization score. If time allows for a more prolonged appeals process, the individuals who are appealing the allocation decision should explain their disagreement with the decision and the RA team should explain the grounds by which the allocation decision was made.

The process for appealing an allocation decision is as follows:

1. The attending physician will immediately contact the RA team to request a reassessment.
2. The responsible RA officer will re-assess the patient's disease severity score and corresponding priority status.
3. If the RA officer does not believe a change is warranted, the decision will be reviewed by the RAC. The RAC will review the case and inform the attending physician of the results. RAC decisions are final.

Ethical Principles

This triage policy is supported by the standard obligations expected in the individual practice of medicine as exemplified by the patient-physician relationship and the obligations that follow from a commitment to human equality and equity especially in difficult times.

The Duty to Care (Clinical Ethics)

Healthcare professionals have a duty to care for the individual patient, even at personal risk. This includes a commitment to delivering the best care possible given the available resources. Moral obligations that follow from the duty to care include a commitment to respecting the rights and preferences of patients, relief of suffering, trustworthiness, and fidelity to the patient including an unwillingness to abandon the patient. Healthcare institutions and systems have a duty to enable healthcare professionals to care for the individual patient. Moral obligations of the healthcare institution include providing equipment to reduce personal risk to the healthcare professional and ensuring appropriate guidance is available to provide the best care possible.

The duty to care is the primary focus of clinical ethics. Ethical support for these moral obligations is delivered through individual consultation, the judicious creation of guidelines to support ethical decision making and providing education to clinicians and other staff. In a crisis, the duty to care for every patient continues to be of prime importance, whether treatment is aimed at maximizing survival or supporting a dignified death.

In a time of crisis, the duty to care can come at personal cost to frontline healthcare providers. We recognize providers have personal and moral obligations that may be impacted by their actions in caring for patients. Healthcare providers should follow their personal moral obligations, which may lead some to invoke what is sometimes called conscientious objection, or the conscientious refusal to participate in some action(s). Furthermore, healthcare institutions have an obligation to nurture and foster the moral health of healthcare providers as the presence of a personal moral code generally contributes to improved patient care. The provider's right to conscientious refusal should be balanced against the institution's duties to provide care to the community.

The Duty to Promote Equality and Equity (Public Health Ethics)

The moral duties imposed by living in society include the obligation to promote justice and protect community health. This moral obligation can be met by ensuring the fair distribution of risks and benefits throughout society. Equality and equity should both be prioritized. By equity we mean fairness relative to need. In a public health crisis, the moral imperative to promote equality and equity expands as we must ensure vulnerable populations do not disproportionately bear the burdens inflicted by the crisis. During the application of this allocation process we should remain deliberately cognizant of the many, subtle forms of unfair discrimination that continue to beset our society's culture and continue to take care to mitigate the intrusion of such inequity in this process.

Duty to Steward Resources

In crisis, all resources are potentially scarce, and clinicians and healthcare institutions have a duty to protect them. All resources should be carefully allocated according to the locations or persons who most need them, their known scarcity, likelihood of renewal, and the extent to which they can be replaced or reused. For the individual healthcare provider, the duty toward resource stewardship includes the adherence to allocation protocols.

Distributive and Procedural Justice

A system of allocation during crisis must be applied consistently and broadly, to maximize equality and equity. Care should be taken to minimize the influence of biases such as ageism, sexism, racism, ableism or any other form of unjust discrimination. Allocation decisions should seek to support equitable access to care, regardless of ability to pay, with particular attention to the most vulnerable populations or those who are likely to disproportionately suffer. Vulnerable populations include immigrants with undocumented status, persons of low socioeconomic status, incarcerated persons, persons with disabilities and any group who traditionally have had a decreased ability to participate in societal decision making.

Transparency

To the extent practically feasible, allocation plans should be communicated efficiently, widely, and comprehensively across the healthcare system, moral community, and stakeholders. Stakeholders include government agencies, nearby healthcare facilities, staff, and patients. Transparency is likely to minimize actual and vicarious trauma to patients, loved ones, staff, and members of the public after the crisis has abated.

Healthcare institutions should notify their staff and the community of their capacity to meet the healthcare needs of their catchment area. Hospital leadership should clearly announce to the staff and community when it is necessary to shift into a different phase on the care continuum such as shifting from contingency conditions to crisis conditions.

Communication

Senior leadership should ensure robust structures are in place to support communication from the macro to the micro level and adequate feedback loops are in place to address ethical concerns created by implementation of policies and guidelines.

Duty to Assess Re-assess

The duties imposed by public health and clinical ethics obligations can fit together within a single ethical framework with the addition of another ethical imperative in times of crisis – that of assessment and reassessment. Duties arising from public health and clinical ethics obligations address different needs. The needs of the individual inform the needs of the community and the needs of the community restrains the availability of the resource to the individual. Those in charge of macro allocation decisions about what resources are made available in a healthcare institution must be attuned to the effects felt at the level of the individual patient and be able to adjust allocation protocols to ensure equitable distribution of resources. Balancing the interests of the individual and the community is not a static calculation but a dynamic process that changes rapidly. Ethically appropriate actions during one set of conditions may no longer be ethically appropriate in another set of conditions

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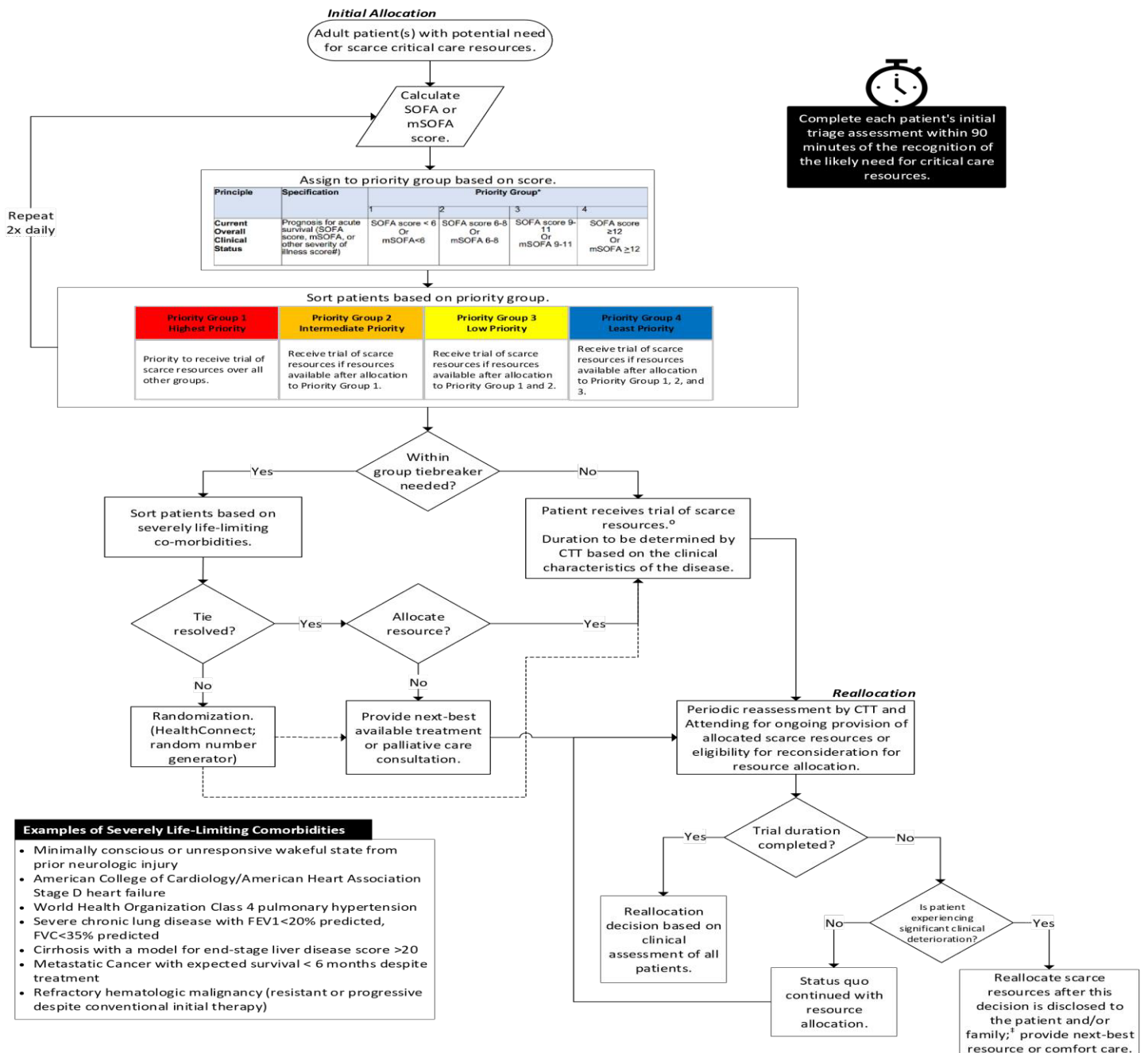
Scarce Critical Care Resource Allocation*


Version Date: July 27, 2020

Pre-Allocation Steps

- Review most current AD or POLST with patient/Legally Recognized Healthcare Decision Maker.
- Review current medical condition with patient/surrogate, including discussing severity and estimated overall prognosis.
- Elicit overall goals/values (quantity/quality/fears/worries/life goals).
- Recommend code status most appropriate for patient's medical condition and their goals/values.
- Document decision.

If critical care interventions are consistent with patient's goals of care and code status (Full Code or DNR/OK Intubation), then follow this process map, otherwise manage using appropriate non-critical care interventions.




Complete each patient's initial triage assessment within 90 minutes of the recognition of the likely need for critical care resources.

Examples of Severely Life-Limiting Comorbidities

- Minimally conscious or unresponsive wakeful state from prior neurologic injury
- American College of Cardiology/American Heart Association Stage D heart failure
- World Health Organization Class 4 pulmonary hypertension
- Severe chronic lung disease with FEV1 < 20% predicted, FVC < 35% predicted
- Cirrhosis with a model for end-stage liver disease score > 20
- Metastatic Cancer with expected survival < 6 months despite treatment
- Refractory hematologic malignancy (resistant or progressive despite conventional initial therapy)

*Based on the California SARS-CoV-2 Pandemic Crisis Care Guidelines. Document date: 06/08/2020. Available at: <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/COVID-19/California%20SARS-CoV-2%20Crisis%20Care%20Guidelines%20-June%208%202020.pdf>.

^oPer page 29 of the June 8 CDPH guidelines. "Although patients should generally be given the full duration of a trial, if patients experience a precipitous decline (e.g., refractory shock and DIC) or a highly morbid complication (e.g., massive stroke) which portends a very poor prognosis, the triage team may make a decision before the completion of the specified trial length that the patient is no longer eligible for critical care treatment."

^fIn the setting of a reallocation decision for a patient without medical decision-making capacity, initiate the CTCR appeals process prior to withdrawal of support if good-faith efforts to contact family have been unsuccessful.